

Trade name: **SIMONA® HDPE natural**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: High-density polyethylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                |
| 3. Composition / Indications to components             | Trade name: SIMONA® HD PE<br>Synonyms: High-Density Polyethylene<br>Chemical characteristics: polymer of ethylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                        |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: natural<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 258.8° F - 266° F<br/>         Flash point: ~ 662 °F</p> <p><u>Other remarks</u></p> <p>Density: 0.963 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                        |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F / 300°C</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PE will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none<br/>         Exothermic reactions: none<br/>         Notices regarding state of aggregation: none<br/>         Conditions to be avoided: none<br/>         Substances/media to be avoided: none<br/>         HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                               |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable<br/>         Accumulation: not applicable<br/>         Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105<br/>         Waste name: waste of polyethylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® HDPE black**

Revision: 07.01.2016

Date of printing: 04.02.2016

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| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: High-density polyethylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                |
| 3. Composition / Indications to components             | Trade name: SIMONA® HD PE<br>Synonyms: High-Density Polyethylene<br>Chemical characteristics: polymer of ethylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                        |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMONA® HDPE black**

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: black<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 258.8° F - 266° F<br/>         Flash point: ~ 662 °F</p> <p><u>Other remarks</u></p> <p>Density: 0.970 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                          |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F / 300°C</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PE will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none<br/>         Exothermic reactions: none<br/>         Notices regarding state of aggregation: none<br/>         Conditions to be avoided: none<br/>         Substances/media to be avoided: none<br/>         HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                               |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable<br/>         Accumulation: not applicable<br/>         Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105<br/>         Waste name: waste of polyethylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® HDPE Bathroom Partitions**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 1. Identification of substance/preparation and company | <p>SIMONA AMERICA Inc.<br/>         101 Power Boulevard<br/>         Archbald, PA 18403<br/>         USA</p> <p>Phone: +1 866 501 2992<br/>         Fax: +1 800 522 4857</p>                                                                                                                                                                                                                                                                                                                                                   |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>         It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>         Component: High-density polyethylene<br/>         ACGIH TLV: not applicable<br/>         OSHA PEL: not applicable<br/>         Carcinogen status (NTP): No<br/>         IARC monograph: No<br/>         OSHA regulated: No</p>                                                                                                      |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® Poly-E Plus HDPE Bathroom Partitions<br/>         Synonyms: High-Density Polyethylene<br/>         Chemical characteristics: polymer of ethylene<br/>         CAS-Registration-No.: not applicable<br/>         Formula: not applicable</p>                                                                                                                                                                                                                                                             |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>         Symptoms / effects: Not expected.<br/>         If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>         Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>         Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>         Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>         Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>         Environmental protection measures: not applicable<br/>         Cleaning equipment: not applicable<br/>         Unsuitable cleaning products: not applicable<br/>         In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>         Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>         Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                                            |

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| <p>8. Exposure controls / personal protection</p> | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:<br/>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| <p>9. Physical and chemical properties</p>        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 258.8° F - 266° F</p> <p><u>Other remarks</u></p> <p>Density: 0.960 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p>10. Stability and reactivity</p>               | <p>Thermal decomposition: above appr. 572°F / 300°C<br/>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PE will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none<br/>Exothermic reactions: none<br/>Notices regarding state of aggregation: none<br/>Conditions to be avoided: none<br/>Substances/media to be avoided: none<br/>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                   |
| <p>11. Toxic indications</p>                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>12. Ecological indications</p>                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>Mobility: not applicable<br/>Accumulation: not applicable<br/>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p>13. Waste-disposal indications</p>             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105<br/>Waste name: waste of polyethylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |



Trade name: **SIMONA® HDPE Bathroom Partitions**  
Date of printing: 04.02.2016

Revision: 01.10.2014

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

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Trade name: **SIMONA® Pipe Grade**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: High-density polyethylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                |
| 3. Composition / Indications to components             | Trade name: SIMONA® Pipe Grade<br>Synonyms: High-Density Polyethylene<br>Chemical characteristics: polymer of ethylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                   |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMONA® Pipe Grade**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:<br/>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Color: black<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 258.8° F - 266° F</p> <p><u>Other remarks</u></p> <p>Density: 0.960 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F / 300°C<br/>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PE will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none<br/>Exothermic reactions: none<br/>Notices regarding state of aggregation: none<br/>Conditions to be avoided: none<br/>Substances/media to be avoided: none<br/>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                   |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>Mobility: not applicable<br/>Accumulation: not applicable<br/>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105<br/>Waste name: waste of polyethylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Trade name: **SIMONA® Pipe Grade**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PE-HWU**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                                        |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>Component: High-density polyethylene<br/>ACGIH TLV: not applicable<br/>OSHA PEL: not applicable<br/>Carcinogen status (NTP): No<br/>IARC monograph: No<br/>OSHA regulated: No</p>                                                                                                                                          |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PE-HWU<br/>Synonyms: High-Density Polyethylene<br/>Chemical characteristics: polymer of ethylene<br/>CAS-Registration-No.: not applicable<br/>Formula: not applicable</p>                                                                                                                                                                                                                                                                                                    |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>Symptoms / effects: Not expected.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>Environmental protection measures: not applicable<br/>Cleaning equipment: not applicable<br/>Unsuitable cleaning products: not applicable<br/>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                                  |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                          |

Trade name: **SIMONA® PE-HWU**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:<br/>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 258.8° F - 266° F</p> <p><u>Other remarks</u></p> <p>Density: 0.955 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F / 300°C<br/>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PE will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none<br/>Exothermic reactions: none<br/>Notices regarding state of aggregation: none<br/>Conditions to be avoided: none<br/>Substances/media to be avoided: none<br/>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                   |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>Mobility: not applicable<br/>Accumulation: not applicable<br/>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105<br/>Waste name: waste of polyethylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Trade name: **SIMONA® PE-HWU**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

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Trade name: **SIMONA® PE-HWST**

Revision: 02.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                                        |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>Component: High-density polyethylene<br/>ACGIH TLV: not applicable<br/>OSHA PEL: not applicable<br/>Carcinogen status (NTP): No<br/>IARC monograph: No<br/>OSHA regulated: No</p>                                                                                                                                          |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PE-HWST<br/>Synonyms: High-Density Polyethylene<br/>Chemical characteristics: polymer of ethylene<br/>CAS-Registration-No.: not applicable<br/>Formula: not applicable</p>                                                                                                                                                                                                                                                                                                   |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>Symptoms / effects: Not expected.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>Environmental protection measures: not applicable<br/>Cleaning equipment: not applicable<br/>Unsuitable cleaning products: not applicable<br/>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                                  |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                          |



Trade name: **SIMONA® PE-HWST**

Revision: 02.11.2012

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:<br/>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 258.8° F - 266° F</p> <p><u>Other remarks</u></p> <p>Density: 0.947 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F / 300°C<br/>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PE will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none<br/>Exothermic reactions: none<br/>Notices regarding state of aggregation: none<br/>Conditions to be avoided: none<br/>Substances/media to be avoided: none<br/>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                   |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>Mobility: not applicable<br/>Accumulation: not applicable<br/>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105<br/>Waste name: waste of polyethylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Trade name: **SIMONA® PE-HWST**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PE 100**

Revision: 02.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                                        |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>Component: High-density polyethylene<br/>ACGIH TLV: not applicable<br/>OSHA PEL: not applicable<br/>Carcinogen status (NTP): No<br/>IARC monograph: No<br/>OSHA regulated: No</p>                                                                                                                                          |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PE 100<br/>Synonyms: High-Density Polyethylene<br/>Chemical characteristics: polymer of ethylene<br/>CAS-Registration-No.: not applicable<br/>Formula: not applicable</p>                                                                                                                                                                                                                                                                                                    |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>Symptoms / effects: Not expected.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>Environmental protection measures: not applicable<br/>Cleaning equipment: not applicable<br/>Unsuitable cleaning products: not applicable<br/>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                                  |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                          |

Trade name: **SIMONA® PE 100**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:<br/>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 258.8° F - 266° F</p> <p><u>Other remarks</u></p> <p>Density: 0.960 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F / 300°C<br/>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PE will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none<br/>Exothermic reactions: none<br/>Notices regarding state of aggregation: none<br/>Conditions to be avoided: none<br/>Substances/media to be avoided: none<br/>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                   |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>Mobility: not applicable<br/>Accumulation: not applicable<br/>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105<br/>Waste name: waste of polyethylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Trade name: **SIMONA® PE 100**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

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Trade name: **SIMONA® PP-Homopolymer natural**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                  |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Homopolymer polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                   |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP-Homopolymer<br>Chemical characteristics: polymer of polypropylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                                    |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                         |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                             |

Trade name: **SIMONA® PP-Homopolymer natural**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: natural, eurogrey<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 320° F - 329° F</p> <p><u>Other remarks</u></p> <p>Density: 0.905 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                            |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PP-Homopolymer natural**  
Date of printing: 04.02.2016

Revision: 01.10.2014

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |



Trade name: **SIMONA® PP-Homopolymer eurogrey**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                  |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Homopolymer polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                   |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP-Homopolymer<br>Chemical characteristics: polymer of polypropylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                                    |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                         |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                             |

Trade name: **SIMONA® PP-Homopolymer eurogrey**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: eurogrey<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 320° F - 329° F</p> <p><u>Other remarks</u></p> <p>Density: 0.920 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                            |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                     |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Trade name: **SIMONA® PP-Homopolymer eurogrey**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PP-Homopolymer white**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                  |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Homopolymer polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                   |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP-Homopolymer<br>Chemical characteristics: polymer of polypropylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                                    |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                         |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                             |

Trade name: **SIMONA® PP-Homopolymer white**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: white<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 320° F - 329° F</p> <p><u>Other remarks</u></p> <p>Density: 0.920 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                            |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PP-Homopolymer white**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PP-Homopolymer black**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                  |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Homopolymer polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                   |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP-Homopolymer<br>Chemical characteristics: polymer of polypropylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                                    |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                         |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                             |

Trade name: **SIMONA® PP-Homopolymer black**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: black<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 320° F - 329° F</p> <p><u>Other remarks</u></p> <p>Density: 0.920 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                            |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



Trade name: **SIMONA® PP-Homopolymer black**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PP-DWU AlphaPlus® Homopolymer**

Revision: 02.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                             |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>Component: Homopolymer polypropylene<br/>ACGIH TLV: not applicable<br/>OSHA PEL: not applicable<br/>Carcinogen status (NTP): No<br/>IARC monograph: No<br/>OSHA regulated: No</p>                                                                                                                               |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PP-DWU AlphaPlus® Homopolymer<br/>Chemical characteristics: polymer of polypropylene<br/>CAS-Registration-No.: not applicable<br/>Formula: not applicable</p>                                                                                                                                                                                                                                                                                                     |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>Symptoms / effects: Not expected.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>Routes of exposure: none</p>                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br/>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>Environmental protection measures: not applicable<br/>Cleaning equipment: not applicable<br/>Unsuitable cleaning products: not applicable<br/>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                       |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                               |

Trade name: **SIMONA® PP-DWU AlphaPlus® Homopolymer**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 320° F - 329° F</p> <p><u>Other remarks</u></p> <p>Density: 0.915 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                      |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Trade name: **SIMONA® PP-DWU AlphaPlus® Homopolymer**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

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Trade name: **SIMONA® PP-DWU-SK AlphaPlus® Homopolymer polyester  
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Revision: 02.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AG<br>Teichweg 16<br>D-55606 Kirn<br>Germany<br><br>Phone: +49 (0) 67 52 14-0<br>Fax: +49 (0) 67 52 14-211                                                                                                                                                                                                                                                                                                                                                                           |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Homopolymer polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP-DWU AlphaPlus® Homopolymer<br>Chemical characteristics: polymer of polypropylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                                  |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMONA® PP-DWU-SK AlphaPlus® Homopolymer polyester  
backed**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 320° F - 329° F</p> <p><u>Other remarks</u></p> <p>Density: 0.915 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                            |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PP-DWU-SK AlphaPlus® Homopolymer polyester backed**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| <p>14. Transport indications</p> | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>                 Notice/symbol transport containers: none<br/>                 No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>                 Special marking for containers: none<br/>                 Proper shipping name: not regulated<br/>                 Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| <p>15. Instructions</p>          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>                 Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                                                                              |

Trade name: **SIMONA® PP-Copolymer natural**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Copolymer polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                  |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP-Copolymer<br>Synonyms: Copolymer Polypropylene<br>Chemical characteristics: polymer of propylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                  |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |



Trade name: **SIMONA® PP-Copolymer natural**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: natural<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 320° F - 327.2° F</p> <p><u>Other remarks</u></p> <p>Density: 0.910 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                            |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PP-Copolymer natural**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMONA® PP-Copolymer eurogrey**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Copolymer polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                  |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP-Copolymer<br>Synonyms: Copolymer Polypropylene<br>Chemical characteristics: polymer of propylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                  |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMONA® PP-Copolymer eurogrey**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: eurogrey<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 320° F - 327.2° F</p> <p><u>Other remarks</u></p> <p>Density: 0.915 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                            |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PP-Copolymer eurogrey**  
Date of printing: 04.02.2016

Revision: 01.10.2014

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

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Trade name: **SIMONA® PP-Copolymer UV-stabilized**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Copolymer polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                  |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP-Copolymer<br>Synonyms: Copolymer Polypropylene<br>Chemical characteristics: polymer of propylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                  |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMONA® PP-Copolymer UV-stabilized**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: black<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 320° F - 327.2° F</p> <p><u>Other remarks</u></p> <p>Density: 0.915 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                            |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PP-Copolymer UV-stabilized**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |



Trade name: **SIMONA® PP-C-PK Copolymer fabric-backed**

Revision: 02.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                             |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>Component: Copolymer polypropylene<br/>ACGIH TLV: not applicable<br/>OSHA PEL: not applicable<br/>Carcinogen status (NTP): No<br/>IARC monograph: No<br/>OSHA regulated: No</p>                                                                                                                                 |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PP-Copolymer<br/>Synonyms: Copolymer Polypropylene<br/>Chemical characteristics: polymer of propylene<br/>CAS-Registration-No.: not applicable<br/>Formula: not applicable</p>                                                                                                                                                                                                                                                                                    |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>Symptoms / effects: Not expected.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>Routes of exposure: none</p>                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br/>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>Environmental protection measures: not applicable<br/>Cleaning equipment: not applicable<br/>Unsuitable cleaning products: not applicable<br/>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                       |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                               |

Trade name: **SIMONA® PP-C-PK Copolymer fabric-backed**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:<br/>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 320° F - 327.2° F</p> <p><u>Other remarks</u></p> <p>Density: 0.910 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                         |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

Trade name: **SIMONA® PP-C-PK Copolymer fabric-backed**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |

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Trade name: **SIMONA® PP Flame retardant**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Flame retardant polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                            |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP Flame retardant<br>Synonyms: Homopolymer, flame retardant polypropylene<br>Chemical characteristics: polymer of polypropylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                     |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMONA® PP Flame retardant**

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| <p>8. Exposure controls / personal protection</p> | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.<br/>                     Personal safety equipment:<br/>                     Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.<br/><br/>                     Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.<br/>                     Eye protection/body protection: No special safety equipment required.</p> |
| <p>9. Physical and chemical properties</p>        | <p><u>Phenotype</u><br/>                     Phenotype / form: semi-finished product, solid state<br/>                     Color: white<br/>                     Smell: not applicable<br/><br/> <u>Change of state</u><br/>                     Crystalline melting range: 320° F - 334.4° F<br/><br/> <u>Other remarks</u><br/>                     Density: 1.020 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>10. Stability and reactivity</p>               | <p>Thermal decomposition: above appr. 572°F<br/>                     Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.<br/>                     Use of stabilisers: none<br/>                     Exothermic reactions: none<br/>                     Notices regarding state of aggregation: none<br/>                     Conditions to be avoided: none<br/>                     Substances/media to be avoided: none<br/>                     HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                           |
| <p>11. Toxic indications</p>                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>12. Ecological indications</p>                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>                     Mobility: not applicable<br/>                     Accumulation: not applicable<br/>                     Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p>13. Waste-disposal indications</p>             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>                     Waste key for the unused product: EAK-Code 120 105<br/><br/>                     Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Trade name: **SIMONA® PP Flame retardant**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMONA® PVC Type I**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AMERICA Inc.<br/>         101 Power Boulevard<br/>         Archbald, PA 18403<br/>         USA</p> <p>Phone: +1 866 501 2992<br/>         Fax: +1 800 522 4857</p>                                                                                                                                                                                                                                                                                                                                                   |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>         It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>         Component: Rigid Polyvinylchloride [9002-86-2]<br/>         ACGIH TLV: not applicable<br/>         OSHA PEL: not applicable<br/>         Carcinogen status (NTP): No<br/>         IARC monograph: No<br/>         OSHA regulated: No</p>                                                                                            |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PVC Type I<br/>         Synonyms: Rigid PVC<br/>         Chemical characteristics: polymer of polyvinylchloride<br/>         CAS-Registration-No.: 0009002-86-2<br/>         Formula: [CH<sub>2</sub>CHCl]<sub>2</sub></p>                                                                                                                                                                                                                                                                              |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>         Symptoms / effects: Not expected.<br/>         If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>         Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>         Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>         Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>         Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>         Environmental protection measures: not applicable<br/>         Cleaning equipment: not applicable<br/>         Unsuitable cleaning products: not applicable<br/>         In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>         Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>         Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                                            |

Trade name: **SIMONA® PVC Type I**  
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| <p>8. Exposure controls / personal protection</p> | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.<br/>                     Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.<br/>                     Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.<br/>                     Eye protection/body protection: No special safety equipment required.</p> |
| <p>9. Physical and chemical properties</p>        | <p><u>Phenotype</u><br/>                     Phenotype / form: semi-finished product, solid state<br/>                     Color: dark grey, white<br/>                     Smell: not applicable</p> <p><u>Change of state</u><br/>                     Crystalline melting range: not applicable</p> <p><u>Other remarks</u><br/>                     Density: 1.410 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                             |
| <p>10. Stability and reactivity</p>               | <p>Thermal decomposition: above appr. 392°F / 200°C<br/>                     Dangerous decomposition products:<br/>                     Burning in an open flame may yield toxic hydrogen chloride gas and metal oxides. Burning will also emit dense black smoke. No heavy metals.</p> <p>Use of stabilisers: none<br/>                     Exothermic reactions: none<br/>                     Notices regarding state of aggregation: none<br/>                     Conditions to be avoided: none<br/>                     Substances/media to be avoided: none<br/>                     HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                 |
| <p>11. Toxic indications</p>                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p>12. Ecological indications</p>                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>                     Mobility: not applicable<br/>                     Accumulation: not applicable<br/>                     Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p>13. Waste-disposal indications</p>             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>                     Waste key for the unused product: EAK-Code 120 105<br/>                     Waste name: waste of polyvinylchloride.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



Trade name: **SIMONA® PVC Type I**  
Date of printing: 04.02.2016

Revision: 01.10.2014

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PVC-CAW**

Revision: 02.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                                        |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>Component: Rigid Polyvinylchloride [9002-86-2]<br/>ACGIH TLV: not applicable<br/>OSHA PEL: not applicable<br/>Carcinogen status (NTP): No<br/>IARC monograph: No<br/>OSHA regulated: No</p>                                                                                                                                |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PVC-CAW<br/>Synonyms: Rigid PVC<br/>Chemical characteristics: polymer of polyvinylchloride<br/>CAS-Registration-No.: 0009002-86-2<br/>Formula: [CH<sub>2</sub>CHCl]<sub>2</sub></p>                                                                                                                                                                                                                                                                                          |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>Symptoms / effects: Not expected.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>Environmental protection measures: not applicable<br/>Cleaning equipment: not applicable<br/>Unsuitable cleaning products: not applicable<br/>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                                  |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                          |

Trade name: **SIMONA® PVC-CAW**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:<br/>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 1.410 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 392°F / 200°C<br/>Dangerous decomposition products:<br/>Burning in an open flame may yield toxic hydrogen chloride gas and metal oxides. Burning will also emit dense black smoke. No heavy metals.</p> <p>Use of stabilisers: none<br/>Exothermic reactions: none<br/>Notices regarding state of aggregation: none<br/>Conditions to be avoided: none<br/>Substances/media to be avoided: none<br/>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                                                                  |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>Mobility: not applicable<br/>Accumulation: not applicable<br/>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105<br/>Waste name: waste of polyvinylchloride.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

Trade name: **SIMONA® PVC-CAW**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

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Trade name: **SIMONA® PVC Type II**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 1. Identification of substance/preparation and company | <p>SIMONA AMERICA Inc.<br/>         101 Power Boulevard<br/>         Archbald, PA 18403<br/>         USA</p> <p>Phone: +1 866 501 2992<br/>         Fax: +1 800 522 4857</p>                                                                                                                                                                                                                                                                                                                                                   |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>         It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>         Component: Rigid Polyvinylchloride [9002-86-2]<br/>         ACGIH TLV: not applicable<br/>         OSHA PEL: not applicable<br/>         Carcinogen status (NTP): No<br/>         IARC monograph: No<br/>         OSHA regulated: No</p>                                                                                            |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PVC Type II<br/>         Synonyms: Rigid PVC<br/>         Chemical characteristics: polymer of polyvinylchloride<br/>         CAS-Registration-No.: 0009002-86-2<br/>         Formula: [CH<sub>2</sub>CHCl]<sub>2</sub></p>                                                                                                                                                                                                                                                                             |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>         Symptoms / effects: Not expected.<br/>         If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>         Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>         Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>         Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>         Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>         Environmental protection measures: not applicable<br/>         Cleaning equipment: not applicable<br/>         Unsuitable cleaning products: not applicable<br/>         In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>         Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>         Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                                            |

Trade name: **SIMONA® PVC Type II**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: light grey, dark grey, white<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 1.380 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 392°F / 200°C</p> <p>Dangerous decomposition products:</p> <p>Burning in an open flame may yield toxic hydrogen chloride gas and metal oxides. Burning will also emit dense black smoke. No heavy metals.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                                                |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polyvinylchloride.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMONA® PVC Type II**

Revision: 01.10.2014

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

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Trade name: **SIMONA® PVC-GLAS**

Revision: 22.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AG<br>Teichweg 16<br>D-55606 Kirn<br>Germany<br><br>Phone: +49 (0) 67 52 14-0<br>Fax: +49 (0) 67 52 14-211                                                                                                                                                                                                                                                                                                                                                                           |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Rigid Polyvinylchloride [9002-86-2]<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                      |
| 3. Composition / Indications to components             | Trade name: SIMONA® PVC-GLAS<br>Synonyms: Rigid PVC<br>Chemical characteristics: polymer of polyvinylchloride<br>CAS-Registration-No.: 0009002-86-2<br>Formula: $[\text{CH}_2\text{CHCl}]_n$                                                                                                                                                                                                                                                                                                |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |



Trade name: **SIMONA® PVC-GLAS**

Revision: 22.11.2012

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/> Color: transparent<br/> Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 1.370 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 392°F / 200°C</p> <p>Dangerous decomposition products:</p> <p>Besides hydrochloric acid also carbon dioxide and water will develop during the burning process. In case of incomplete burning also carbon monoxide and traces of phosgene may arise.</p> <p>Use of stabilisers: none<br/> Exothermic reactions: none<br/> Notices regarding state of aggregation: none<br/> Conditions to be avoided: none<br/> Substances/media to be avoided: none<br/> HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable<br/> Accumulation: not applicable<br/> Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105<br/> Waste name: waste of polyvinylchloride.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Trade name: **SIMONA® PVC-GLAS**

Revision: 22.11.2012

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |

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Trade name: **SIMONA® PVC-KYRNIT®**

Revision: 02.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                                        |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>Component: Rigid Polyvinylchloride [9002-86-2]<br/>ACGIH TLV: not applicable<br/>OSHA PEL: not applicable<br/>Carcinogen status (NTP): No<br/>IARC monograph: No<br/>OSHA regulated: No</p>                                                                                                                                |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PVC-KYRNIT®<br/>Chemical characteristics: polymer of polyvinyl chloride<br/>CAS-Registration-No.: not applicable<br/>Formula: not applicable</p>                                                                                                                                                                                                                                                                                                                             |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>Symptoms / effects: Not expected.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>Environmental protection measures: not applicable<br/>Cleaning equipment: not applicable<br/>Unsuitable cleaning products: not applicable<br/>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                                  |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                          |

Trade name: **SIMONA® PVC-KYRNIT®**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:<br/>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 1.390 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 392°F / 200°C<br/>Dangerous decomposition products:<br/>Burning in an open flame may yield toxic hydrogen chloride gas and metal oxides. Burning will also emit dense black smoke. No heavy metals.</p> <p>Use of stabilisers: none<br/>Exothermic reactions: none<br/>Notices regarding state of aggregation: none<br/>Conditions to be avoided: none<br/>Substances/media to be avoided: none<br/>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                                                                  |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>Mobility: not applicable<br/>Accumulation: not applicable<br/>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105<br/>Waste name: waste of polyvinylchloride.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

Trade name: **SIMONA® PVC-KYRNIT®**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

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Trade name: **SIMONA® PVC VS-1**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AMERICA Inc.<br/>         101 Power Boulevard<br/>         Archbald, PA 18403<br/>         USA</p> <p>Phone: +1 866 501 2992<br/>         Fax: +1 800 522 4857</p>                                                                                                                                                                                                                                                                                                                                                   |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>         It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>         Component: Rigid Polyvinylchloride [9002-86-2]<br/>         ACGIH TLV: not applicable<br/>         OSHA PEL: not applicable<br/>         Carcinogen status (NTP): No<br/>         IARC monograph: No<br/>         OSHA regulated: No</p>                                                                                            |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PVC VS-1<br/>         Synonyms: Rigid PVC<br/>         Chemical characteristics: polymer of polyvinylchloride<br/>         CAS-Registration-No.: 0009002-86-2<br/>         Formula: <math>[\text{CH}_2\text{CHCl}]_n</math></p>                                                                                                                                                                                                                                                                         |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>         Symptoms / effects: Not expected.<br/>         If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>         Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>         Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>         Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>         Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>         Environmental protection measures: not applicable<br/>         Cleaning equipment: not applicable<br/>         Unsuitable cleaning products: not applicable<br/>         In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>         Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>         Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                                            |

Trade name: **SIMONA® PVC VS-1**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: white<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 1.415 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 392°F / 200°C</p> <p>Dangerous decomposition products:<br/>         Besides hydrochloric acid also carbon dioxide and water will develop during the burning process. In case of incomplete burning also carbon monoxide and traces of phosgene may arise.</p> <p>Use of stabilisers: none<br/>         Exothermic reactions: none<br/>         Notices regarding state of aggregation: none<br/>         Conditions to be avoided: none<br/>         Substances/media to be avoided: none<br/>         HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                  |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable<br/>         Accumulation: not applicable<br/>         Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105<br/>         Waste name: waste of polyvinylchloride.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                |

Trade name: **SIMONA® PVC VS-1**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |



Trade name: **SIMONA® PVC-C CORZAN® Industrial Grade**

Revision: 01.01.2013

Date of printing: 04.02.2016

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|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2. Possible dangers                                    | <p>This product is a mixture of materials, all of which appear on the EPA inventory of industrial chemicals. Under normal handling conditions, SIMONA® CPVC sheets are classified as "articles" and do not present any recognized health hazards. However, heating of this material, such as softening or melting (welding), may generate small quantities of fumes containing unidentified compounds of hydrogen degradation, organic acids and esters, and hydrogen chloride. Operations such as machining, routing or sawing may generate dust containing low levels of the following ingredients:<br/>Component: post-chlorinated polyvinyl chloride</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PVC-C CORZAN® Industrial Grade<br/>Synonyms: SIMONA® CPVC CORZAN® FM 4910 G2<br/>Chemical characteristics: polymer of polyvinyl chloride<br/>CAS-Registration-No.: not applicable<br/>Formula: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary</p> <p>Effect of Overexposure:<br/>Acute: Vapors and fumes from processing, especially at elevated temperatures, may cause irritation of the eye, throat and upper respiratory apparatus.</p> <p>Chronic: The following materials are minor encapsulated components of the product and are not believed to constitute an exposure hazard. However, good industrial hygiene practices should be followed to avoid ingestion or inhalation of fumes or dust.</p> <p>Antimony trioxide: Antimony compounds are generally less toxic than antimony. Principal organs attacked include certain enzyme systems (protein and carbohydrate metabolism), heart, lungs, and the mucous membrane of the respiratory tract. Chronic poisoning present symptoms of dry throat, nausea, headache, sleeplessness, loss of appetite and dizziness. Liver and kidney degenerative changes are late manifestations.</p> <p>Organotin compounds: Causes irritation of the eyes and upper respiratory tract. Produces mild conjunctivitis of the eye. Some people may have an allergic response.</p> <p><b>Emergency and first aid procedures:</b> Remove affected individuals to fresh air and call physician.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.</p> <p>Routes of exposure: none</p> |

Trade name: **SIMONA® PVC-C CORZAN® Industrial Grade**

Revision: 01.01.2013

Date of printing: 04.02.2016

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| <p>5. Fire-fighting measures</p>                  | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>                 Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>                 Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>                 Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p>                                                                                                                                                                                                      |
| <p>6. Measures in case of unintended release</p>  | <p>Person-related measures: none<br/>                 Environmental protection measures: not applicable<br/>                 Cleaning equipment: not applicable<br/>                 Unsuitable cleaning products: not applicable<br/>                 In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>                 Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                                                                                                                                                                                                     |
| <p>7. Handling and storage</p>                    | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>                 Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                                                                                                                                                                                                                                                                 |
| <p>8. Exposure controls / personal protection</p> | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.<br/>                 Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.<br/>                 Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.<br/>                 Eye protection/body protection: No special safety equipment required.</p> |
| <p>9. Physical and chemical properties</p>        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>                 Color: light grey<br/>                 Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 1.520 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Trade name: **SIMONA® PVC-C CORZAN® Industrial Grade**

Revision: 01.01.2013

Date of printing: 04.02.2016

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| 10. Stability and reactivity   | <p>Stability (normal conditions): Stable</p> <p>Dangerous decomposition products:<br/>Burning in an open flame may yield toxic combustion products. Burning will also emit dense black smoke. No heavy metals.<br/>Note: Generates heavy smoke of carbon monoxide and acidic gases during fire.<br/>Hazardous decomposition: Hydrogen chloride, organic acids and esters, hydrocarbon fragments.<br/>Hazardous polymerization: Will not occur</p> <p>Use of stabilisers: Not applicable<br/>Exothermic reactions: Not applicable<br/>Notices regarding state of aggregation: Not applicable</p> <p>Conditions to be avoided: Avoid contact of heated PVC sheeting or film with acetal or acetal copolymers and with amine-containing materials. At elevated temperatures, these materials are mutually destructive and involve rapid degradation of the products.</p> <p>Substances/media to be avoided: Contact with alkali, acids and solvents</p> |
| 11. Toxic indications          | No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 12. Ecological indications     | This product may contain toxic chemical categories subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. Consult Section II, Hazardous Ingredients.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 13. Waste-disposal indications | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105<br/>Waste name: waste of polyvinylchloride.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 14. Transport indications      | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p>                                                                                                                                                                                                                                                                                                                                                                                    |
| 15. Instructions               | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

Trade name: **SIMOPOR-LIGHT**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                  |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Foamed polymer of polyvinyl chloride<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                        |
| 3. Composition / Indications to components             | Trade name: SIMOPOR-LIGHT<br>Chemical characteristics: polymer of polyvinyl chloride<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                                        |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                         |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                             |

Trade name: **SIMOPOR-LIGHT**

Revision: 01.10.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: white<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 0.550 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 392°F / 200°C</p> <p>Dangerous decomposition products:</p> <p>Besides hydrochloric acid also carbon dioxide and water will develop during the burning process. In case of incomplete burning also carbon monoxide and traces of phosgene may arise.</p> <p>Use of stabilisers: none<br/>         Exothermic reactions: none<br/>         Notices regarding state of aggregation: none<br/>         Conditions to be avoided: none<br/>         Substances/media to be avoided: none<br/>         HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                        |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable<br/>         Accumulation: not applicable<br/>         Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMOPOR-LIGHT**

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| <p>13. Waste-disposal indications</p> | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polyvinyl chloride</p>                                                                                                                                                                                                                                                                                                  |
| <p>14. Transport indications</p>      | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| <p>15. Instructions</p>               | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMOPOR-COLOR**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                  |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Foamed polymer of polyvinyl chloride<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                        |
| 3. Composition / Indications to components             | Trade name: SIMOPOR-COLOR<br>Chemical characteristics: polymer of polyvinyl chloride<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                                        |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                         |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                             |

Trade name: **SIMOPOR-COLOR**

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| <p>8. Exposure controls / personal protection</p> | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:<br/>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| <p>9. Physical and chemical properties</p>        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Color: black<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 0.600 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p>10. Stability and reactivity</p>               | <p>Thermal decomposition: above appr. 392°F / 200°C<br/>Dangerous decomposition products:<br/>Besides hydrochloric acid also carbon dioxide and water will develop during the burning process. In case of incomplete burning also carbon monoxide and traces of phosgene may arise.</p> <p>Use of stabilisers: none<br/>Exothermic reactions: none<br/>Notices regarding state of aggregation: none<br/>Conditions to be avoided: none<br/>Substances/media to be avoided: none<br/>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                        |
| <p>11. Toxic indications</p>                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>12. Ecological indications</p>                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>Mobility: not applicable<br/>Accumulation: not applicable<br/>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |



Trade name: **SIMOPOR-COLOR**

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| <p>13. Waste-disposal indications</p> | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polyvinyl chloride</p>                                                                                                                                                                                                                                                                                                  |
| <p>14. Transport indications</p>      | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| <p>15. Instructions</p>               | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMOPOR-DIGITAL**

Revision: 01.10.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Foamed polymer of polyvinyl chloride<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                     |
| 3. Composition / Indications to components             | Trade name: SIMOPOR-DIGITAL<br>Chemical characteristics: polymer of polyvinyl chloride<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                                                   |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMOPOR-DIGITAL**

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| <p>8. Exposure controls / personal protection</p> | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| <p>9. Physical and chemical properties</p>        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>                 Color: white<br/>                 Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 0.550 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p>10. Stability and reactivity</p>               | <p>Thermal decomposition: above appr. 392°F / 200°C</p> <p>Dangerous decomposition products:<br/>                 Besides hydrochloric acid also carbon dioxide and water will develop during the burning process. In case of incomplete burning also carbon monoxide and traces of phosgene may arise.</p> <p>Use of stabilisers: none<br/>                 Exothermic reactions: none<br/>                 Notices regarding state of aggregation: none<br/>                 Conditions to be avoided: none<br/>                 Substances/media to be avoided: none<br/>                 HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                  |
| <p>11. Toxic indications</p>                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p>12. Ecological indications</p>                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable<br/>                 Accumulation: not applicable<br/>                 Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMOPOR-DIGITAL**  
Date of printing: 04.02.2016

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| <p>13. Waste-disposal indications</p> | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polyvinyl chloride</p>                                                                                                                                                                                                                                                                                                  |
| <p>14. Transport indications</p>      | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| <p>15. Instructions</p>               | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

Trade name: **SIMONA® PVDF KYNAR® 1000**

Revision: 02.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                                        |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>Component: Highly crystalline polyvinylidene fluoride<br/>ACGIH TLV: not applicable<br/>OSHA PEL: not applicable<br/>Carcinogen status (NTP): No<br/>IARC monograph: No<br/>OSHA regulated: No</p>                                                                                                                         |
| 3. Composition / Indications to components             | <p>Trade name: SIMONA® PVDF KYNAR® 1000<br/>Chemical characteristics: Highly crystalline polyvinylidene fluoride<br/>CAS-Registration-No.: not applicable<br/>Formula: not applicable</p>                                                                                                                                                                                                                                                                                                           |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>Symptoms / effects: Not expected.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>Environmental protection measures: not applicable<br/>Cleaning equipment: not applicable<br/>Unsuitable cleaning products: not applicable<br/>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                                  |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                          |

Trade name: **SIMONA® PVDF KYNAR® 1000**

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/> Color: natural<br/> Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 338° F - 341.6° F</p> <p><u>Other remarks</u></p> <p>Density: 1.780 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 10. Stability and reactivity               | <p>Stability (normal conditions): Stable<br/> Thermal decomposition: from 662 °F</p> <p>Dangerous decomposition products:<br/> Above 662 °F decomposition in toxic fluor containing substances. During the burning process hydrofluoric acid, carbon dioxide and water will develop, in case of incomplete burning also carbon monoxide and low molecular fluorocarbons may arise.</p> <p>Use of stabilisers: none<br/> Exothermic reactions: none<br/> Notices regarding state of aggregation: none<br/> Conditions to be avoided: none<br/> Substances/media to be avoided: Contact with alkali, acids and solvents</p>                                                                                         |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/> Mobility: not applicable<br/> Accumulation: not applicable<br/> Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/> Waste key for the unused product: EAK-Code 120 105<br/> Waste name: waste of polyvinylidene fluoride</p>                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Trade name: **SIMONA® PVDF KYNAR® 1000**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |

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Trade name: **SIMONA® PVDF-SK polyester backed**

Revision: 02.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AG<br>Teichweg 16<br>D-55606 Kirn<br>Germany<br><br>Phone: +49 (0) 67 52 14-0<br>Fax: +49 (0) 67 52 14-211                                                                                                                                                                                                                                                                                                                                                              |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Highly crystalline polyvinylidene fluoride<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                  |
| 3. Composition / Indications to components             | Trade name: SIMONA® PVDF-SK polyester backed<br>Chemical characteristics: Highly crystalline polyvinylidene fluoride<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                        |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                         |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                             |



Trade name: **SIMONA® PVDF-SK polyester backed**

Revision: 02.11.2012

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:<br/>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 338° F - 341.6° F</p> <p><u>Other remarks</u></p> <p>Density: 1.780 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 10. Stability and reactivity               | <p>Stability (normal conditions): Stable<br/>Thermal decomposition: from 662 °F</p> <p>Dangerous decomposition products:<br/>Above 662 °F decomposition in toxic fluor containing substances. During the burning process hydrofluoric acid, carbon dioxide and water will develop, in case of incomplete burning also carbon monoxide and low molecular fluorocarbons may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: Contact with alkali, acids and solvents</p>                                                                                       |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>Mobility: not applicable<br/>Accumulation: not applicable<br/>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Trade name: **SIMONA® PVDF-SK polyester backed**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 13. Waste-disposal indications | Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br>Waste key for the unused product: EAK-Code 120 105<br><br>Waste name: waste of polyvinylidene fluoride                                                                                                                                                                                                                                                                                         |
| 14. Transport indications      | This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br>Notice/symbol transport containers: none<br>No dangerous product in respect to / according to transport regulations<br><br>Notice/symbol transport containers: none<br>Special marking for containers: none<br>Proper shipping name: not regulated<br>Since empty containers retain product residue, follow hazard precautions even after container is emptied. |
| 15. Instructions               | All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br>Water hazard class: 0 (self-classification)                                                                                                                                                                                                                                                                                                                                      |

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Trade name: **SIMONA® PVDF-GK glass fibre backed**

Revision: 02.11.2012

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AG<br>Teichweg 16<br>D-55606 Kirn<br>Germany<br><br>Phone: +49 (0) 67 52 14-0<br>Fax: +49 (0) 67 52 14-211                                                                                                                                                                                                                                                                                                                                                              |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Highly crystalline polyvinylidene fluoride<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                  |
| 3. Composition / Indications to components             | Trade name: SIMONA® PVDF-GK glass fibre backed<br>Chemical characteristics: Highly crystalline polyvinylidene fluoride<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                      |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                         |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                             |

Trade name: **SIMONA® PVDF-GK glass fibre backed**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: 338° F - 341.6° F</p> <p><u>Other remarks</u></p> <p>Density: 1.780 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10. Stability and reactivity               | <p>Stability (normal conditions): Stable<br/>Thermal decomposition: from 662 °F</p> <p>Dangerous decomposition products:<br/>Above 662 °F decomposition in toxic fluor containing substances. During the burning process hydrofluoric acid, carbon dioxide and water will develop, in case of incomplete burning also carbon monoxide and low molecular fluorocarbons may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: Contact with alkali, acids and solvents</p>                                                                                          |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable<br/>Accumulation: not applicable<br/>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Trade name: **SIMONA® PVDF-GK glass fibre backed**

Revision: 02.11.2012

Date of printing: 04.02.2016

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| 13. Waste-disposal indications | Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br>Waste key for the unused product: EAK-Code 120 105<br><br>Waste name: waste of polyvinylidene fluoride                                                                                                                                                                                                                                                                                         |
| 14. Transport indications      | This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br>Notice/symbol transport containers: none<br>No dangerous product in respect to / according to transport regulations<br><br>Notice/symbol transport containers: none<br>Special marking for containers: none<br>Proper shipping name: not regulated<br>Since empty containers retain product residue, follow hazard precautions even after container is emptied. |
| 15. Instructions               | All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br>Water hazard class: 0 (self-classification)                                                                                                                                                                                                                                                                                                                                      |

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Trade name: **SIMOLIFE HDPE**

Revision: 30.07.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: High-Density Polyethylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                |
| 3. Composition / Indications to components             | Trade name: SIMOLIFE HDPE<br>Synonyms: High-Density Polyethylene<br>Chemical characteristics: polymer of ethylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                        |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMOLIFE HDPE**

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: natural, flesh-coloured, black<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: &gt; 176 °F<br/>         Flash point: ~ 662 °F<br/>         Flash point: not applicable °F</p> <p><u>Other remarks</u></p> <p>Density: 0.963 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                           |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F / 300°C</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PE will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none<br/>         Exothermic reactions: none<br/>         Notices regarding state of aggregation: none<br/>         Conditions to be avoided: none<br/>         Substances/media to be avoided: none<br/>         HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                               |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable<br/>         Accumulation: not applicable<br/>         Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Trade name: **SIMOLIFE HDPE**

Revision: 30.07.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |



Trade name: **SIMOLIFE UHMWPE**

Revision: 30.07.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Ultra-high molecular weight Polyethylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                 |
| 3. Composition / Indications to components             | Trade name: SIMOLIFE UHMW<br>Synonyms: Ultra-high molecular weight Polyethylene<br>Chemical characteristics: polymer of ethylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                         |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMOLIFE UHMWPE**

Revision: 30.07.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/> Color: natural<br/> Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: &gt; 176 °F<br/> Flash point: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 0.930 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F / 300°C<br/> Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PE will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none<br/> Exothermic reactions: none<br/> Notices regarding state of aggregation: none<br/> Conditions to be avoided: none<br/> Substances/media to be avoided: none<br/> HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                         |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/> Mobility: not applicable<br/> Accumulation: not applicable<br/> Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/> Waste key for the unused product: EAK-Code 120 105<br/> Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

Trade name: **SIMOLIFE UHMWPE**

Revision: 30.07.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMOLIFE LDPE**

Revision: 30.07.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Low-Density Polyethylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                 |
| 3. Composition / Indications to components             | Trade name: SIMOLIFE LDPE<br>Synonyms: Low-Density Polyethylene<br>Chemical characteristics: polymer of ethylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                         |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMOLIFE LDPE**  
Date of printing: 04.02.2016

Revision: 30.07.2014

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| <p>8. Exposure controls / personal protection</p> | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.<br/>                     Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.<br/>                     Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.<br/>                     Eye protection/body protection: No special safety equipment required.</p> |
| <p>9. Physical and chemical properties</p>        | <p><u>Phenotype</u><br/>                     Phenotype / form: semi-finished product, solid state<br/>                     Color: natural<br/>                     Smell: not applicable</p> <p><u>Change of state</u><br/>                     Crystalline melting range: &gt; 176 °F<br/>                     Flash point: not applicable</p> <p><u>Other remarks</u><br/>                     Density: 0.920 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                    |
| <p>10. Stability and reactivity</p>               | <p>Thermal decomposition: above appr. 572°F / 300°C<br/>                     Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PE will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none<br/>                     Exothermic reactions: none<br/>                     Notices regarding state of aggregation: none<br/>                     Conditions to be avoided: none<br/>                     Substances/media to be avoided: none<br/>                     HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                       |
| <p>11. Toxic indications</p>                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p>12. Ecological indications</p>                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.<br/>                     Mobility: not applicable<br/>                     Accumulation: not applicable<br/>                     Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p>13. Waste-disposal indications</p>             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.<br/>                     Waste key for the unused product: EAK-Code 120 105<br/>                     Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Trade name: **SIMOLIFE LDPE**

Revision: 30.07.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMOLIFE PP-Homopolymer**

Revision: 30.07.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Homopolymer polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP-H Orthotic and Prosthetic<br>Synonyms: PP Homopolymer<br>Chemical characteristics: polymer of polypropylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                       |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMOLIFE PP-Homopolymer**

Revision: 30.07.2014

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: natural, flesh-coloured, black<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: &gt;212° F</p> <p><u>Other remarks</u></p> <p>Density: 0.905 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                            |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



Trade name: **SIMOLIFE PP-Homopolymer**

Revision: 30.07.2014

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMOLIFE PP-Copolymer**

Revision: 30.07.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AMERICA Inc.<br>101 Power Boulevard<br>Archbald, PA 18403<br>USA<br><br>Phone: +1 866 501 2992<br>Fax: +1 800 522 4857                                                                                                                                                                                                                                                                                                                                                               |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Copolymer polypropylene<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                                                  |
| 3. Composition / Indications to components             | Trade name: SIMONA® PP-C Orthotic and Prosthetic<br>Synonyms: Copolymer Polypropylene<br>Chemical characteristics: polymer of propylene<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                  |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                                        |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO <sub>2</sub> , foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                                      |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                                          |

Trade name: **SIMOLIFE PP-Copolymer**

Revision: 30.07.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment:</p> <p>Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/>         Color: natural, black<br/>         Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: &gt;176° F</p> <p><u>Other remarks</u></p> <p>Density: 0.910 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 572°F</p> <p>Dangerous decomposition products: Besides carbon black also carbon dioxide and water as well as low molecular parts of PP will develop during the burning process. In case of incomplete burning also carbon monoxide may arise.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                            |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of propylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Trade name: **SIMOLIFE PP-Copolymer**

Revision: 30.07.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMOLIFE PETG**

Revision: 08.08.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                                        |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>Component: Polycondensation products of terephthalate acid and diolen copolyester<br/>ACGIH TLV: not applicable<br/>OSHA PEL: not applicable<br/>Carcinogen status (NTP): No<br/>IARC monograph: No<br/>OSHA regulated: No</p>                                                                                             |
| 3. Composition / Indications to components             | <p>Trade name: SIMOLIFE PETG<br/>Chemical characteristics: Polycondensation products of terephthalate acid and diolen copolyester<br/>CAS-Registration-No.: not applicable<br/>Formula: not applicable</p>                                                                                                                                                                                                                                                                                          |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>Symptoms / effects: Not expected.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>Environmental protection measures: not applicable<br/>Cleaning equipment: not applicable<br/>Unsuitable cleaning products: not applicable<br/>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                                  |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                          |

Trade name: **SIMOLIFE PETG**

Revision: 08.08.2014

Date of printing: 04.02.2016

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/> Color: transparent<br/> Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: not applicable<br/> Flash point: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 1.270 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                         |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 250°C</p> <p>Dangerous decomposition products:<br/> Besides carbon black also carbon dioxide and water as well as low molecular parts will develop during the burning process.</p> <p>Use of stabilisers: none</p> <p>Exothermic reactions: none</p> <p>Notices regarding state of aggregation: none</p> <p>Conditions to be avoided: none</p> <p>Substances/media to be avoided: none</p> <p>HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                                                                                                    |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable</p> <p>Accumulation: not applicable</p> <p>Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105</p> <p>Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Trade name: **SIMOLIFE PETG**

Revision: 08.08.2014

Date of printing: 04.02.2016

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMOLIFE EVA flex**

Revision: 30.07.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | <p>SIMONA AG<br/>Teichweg 16<br/>D-55606 Kirn<br/>Germany</p> <p>Phone: +49 (0) 67 52 14-0<br/>Fax: +49 (0) 67 52 14-211</p>                                                                                                                                                                                                                                                                                                                                                                        |
| 2. Possible dangers                                    | <p>This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br/>It will not result in exposure to hazardous chemicals under normal conditions of use.<br/>Component: Copolymer of ethylene and vinyl acetate<br/>ACGIH TLV: not applicable<br/>OSHA PEL: not applicable<br/>Carcinogen status (NTP): No<br/>IARC monograph: No<br/>OSHA regulated: No</p>                                                                                                                            |
| 3. Composition / Indications to components             | <p>Trade name: SIMOLIFE EVA flex<br/>Chemical characteristics: Copolymer of ethylene and vinyl acetate<br/>CAS-Registration-No.: not applicable<br/>Formula: not applicable</p>                                                                                                                                                                                                                                                                                                                     |
| 4. First-aid measures                                  | <p>General comment: Medical aid is not necessary<br/>Symptoms / effects: Not expected.<br/>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br/>Routes of exposure: none</p>                                                                                                                                                                                                                                                                      |
| 5. Fire-fighting measures                              | <p>Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br/>Fire extinguishing media: CO<sub>2</sub>, foam, dry chemical, water spray or fog.<br/>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br/>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity.</p> |
| 6. Measures in case of unintended release              | <p>Person-related measures: none<br/>Environmental protection measures: not applicable<br/>Cleaning equipment: not applicable<br/>Unsuitable cleaning products: not applicable<br/>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br/>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.</p>                                                                  |
| 7. Handling and storage                                | <p>Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br/>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.</p>                                                          |



Trade name: **SIMOLIFE EVA flex**

Revision: 30.07.2014

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| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/> Color: natural<br/> Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: &gt; 149 °F<br/> Flash point: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 0.934 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 300°C<br/> Dangerous decomposition products:<br/> Besides carbon black also carbon dioxide and water as well as other dangerous products will develop during the burning process. In case of incomplete burning also carbon monoxide and acetic acid may arise.</p> <p>Use of stabilisers: none<br/> Exothermic reactions: none<br/> Notices regarding state of aggregation: none<br/> Conditions to be avoided: none<br/> Substances/media to be avoided: none<br/> HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                             |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable<br/> Accumulation: not applicable<br/> Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105<br/> Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Trade name: **SIMOLIFE EVA flex**

Revision: 30.07.2014

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none</p> <p>Special marking for containers: none</p> <p>Proper shipping name: not regulated</p> <p>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)</p> <p>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                                      |

Trade name: **SIMOLIFE EVA superflex**

Revision: 30.07.2014

Date of printing: 04.02.2016

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|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identification of substance/preparation and company | SIMONA AG<br>Teichweg 16<br>D-55606 Kirn<br>Germany<br><br>Phone: +49 (0) 67 52 14-0<br>Fax: +49 (0) 67 52 14-211                                                                                                                                                                                                                                                                                                                                                              |
| 2. Possible dangers                                    | This product is an "article" as defined in 29 C.F.R. Section 1910.1200.<br>It will not result in exposure to hazardous chemicals under normal conditions of use.<br>Component: Copolymer of ethylene and vinyl acetate<br>ACGIH TLV: not applicable<br>OSHA PEL: not applicable<br>Carcinogen status (NTP): No<br>IARC monograph: No<br>OSHA regulated: No                                                                                                                     |
| 3. Composition / Indications to components             | Trade name: SIMOLIFE EVA superflex<br>Chemical characteristics: Copolymer of ethylene and vinyl acetate<br>CAS-Registration-No.: not applicable<br>Formula: not applicable                                                                                                                                                                                                                                                                                                     |
| 4. First-aid measures                                  | General comment: Medical aid is not necessary<br>Symptoms / effects: Not expected.<br>If symptoms persist, get medical attention. Never give anything by mouth to an unconscious person.<br>Routes of exposure: none                                                                                                                                                                                                                                                           |
| 5. Fire-fighting measures                              | Flammable limits (STP in air): Lower limits: not applicable - Upper limits: not applicable<br>Fire extinguishing media: CO2, foam, dry chemical, water spray or fog.<br>Personal protection for fighting fire: Fire fighters must wear positive-pressure, self-contained breathing apparatus and full protective clothing.<br>Hazard warning notice: Because static sparking can occur during handling, all flammable materials should be removed from the immediate vicinity. |
| 6. Measures in case of unintended release              | Person-related measures: none<br>Environmental protection measures: not applicable<br>Cleaning equipment: not applicable<br>Unsuitable cleaning products: not applicable<br>In case of spill: Shovel spilled material into suitable container. Do not contaminate soil, groundwater, or surface water<br>Disposal method: Incinerate or use RCRA permitted landfill. Follow all federal, state, and local regulations.                                                         |
| 7. Handling and storage                                | Handling: Measures during which smoke gases and vapours are released should be performed with good ventilation. Do not store or consume food in the processing area. Dust and fine particles of dust may develop during processing. Powder, dust and/or fine dust can constitute the risk of a dust explosion.<br>Storage: Avoid excess heat. Do not store near combustible agents. Storage rooms with sprinklers are recommended.                                             |

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|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8. Exposure controls / personal protection | <p>Technical measures (in processing): Always ensure there is effective ventilation and – where necessary – a local extraction system in order to keep away any smoke gases, vapours and/or dust.</p> <p>Personal safety equipment: Breathing masks: If ventilation is adequate, there is no need to wear a breathing mask. Small particles of this product may form during processing. If it is not possible to avoid inhaling particles, a breathing mask must be worn to protect against dust.</p> <p>Hand protection: No special safety equipment required. If material is hot, protective gloves must be worn for handling.</p> <p>Eye protection/body protection: No special safety equipment required.</p> |
| 9. Physical and chemical properties        | <p><u>Phenotype</u></p> <p>Phenotype / form: semi-finished product, solid state<br/> Color: natural<br/> Smell: not applicable</p> <p><u>Change of state</u></p> <p>Crystalline melting range: &gt; 149 °F<br/> Flash point: not applicable</p> <p><u>Other remarks</u></p> <p>Density: 0.955 g/cm<sup>3</sup></p>                                                                                                                                                                                                                                                                                                                                                                                                |
| 10. Stability and reactivity               | <p>Thermal decomposition: above appr. 300°C<br/> Dangerous decomposition products:<br/> Besides carbon black also carbon dioxide and water as well as other dangerous products will develop during the burning process. In case of incomplete burning also carbon monoxide and acetic acid may arise.</p> <p>Use of stabilisers: none<br/> Exothermic reactions: none<br/> Notices regarding state of aggregation: none<br/> Conditions to be avoided: none<br/> Substances/media to be avoided: none<br/> HMIS ratings (scale 0-4): health = 0, flammability = 1, reactivity = 0</p>                                                                                                                             |
| 11. Toxic indications                      | <p>No toxicity tests have been performed for this material. No harm to health was observed over a period spanning several years.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. Ecological indications                 | <p>No biodegradation, no solubility in water, no effects being harmful to the environment must be expected.</p> <p>Mobility: not applicable<br/> Accumulation: not applicable<br/> Eco-toxicity: not applicable</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 13. Waste-disposal indications             | <p>Waste must be recycled or incinerated at approved facilities or disposed of at refuse tips in accordance with federal, state and local regulations.</p> <p>Waste key for the unused product: EAK-Code 120 105<br/> Waste name: waste of polypropylene.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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| 14. Transport indications | <p>This product is not subject to any regulations as far as national or international transport is concerned. No dangerous product in respect to / according to transport regulations<br/>Notice/symbol transport containers: none<br/>No dangerous product in respect to / according to transport regulations</p> <p>Notice/symbol transport containers: none<br/>Special marking for containers: none<br/>Proper shipping name: not regulated<br/>Since empty containers retain product residue, follow hazard precautions even after container is emptied.</p> |
| 15. Instructions          | <p>All parts of this product are included either on the list of chemicals in the U.S. Poison Control Act or meet TSCA regulations (U.S. TOXIC SUBSTANCES ACT à TSAC)<br/>Water hazard class: 0 (self-classification)</p>                                                                                                                                                                                                                                                                                                                                          |