

This is a kit that contains the following components: POWERPLY ENDURE BIO ADHESIVE PT A MEDI VULKEM 950 CATALYST



Version: 1.0 Revision Date: 08/25/2020

# SAFETY DATA SHEET

## 1. Identification

Product identifier: POWERPLY ENDURE BIO ADHESIVE PT A MEDI Product Code: 365420PK805

#### Recommended use and restriction on use

Recommended use: Adhesive Restrictions on use: Not known.

#### Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S. Roofing 3735 Green Road Beachwood OH 44122 US

Contact person: Telephone: Emergency telephone number: EH&S Department 216-292-5000 1-800-424-9300 (US); 1-613-996-6666 (Canada)

#### 2. Hazard(s) identification

#### **Hazard Classification**

| Flammable liquids | Category 4 |
|-------------------|------------|
| Health Hazards    |            |

| Health Hazards |            |          |
|----------------|------------|----------|
| Δ.             | 1. 1. 1.11 | 1.1.1.0. |

| Acute toxicity (Inhalation - dust and mist) | Category 4  |
|---|-------------|
| Skin Corrosion/Irritation                   | Category 2  |
| Serious Eye Damage/Eye Irritation           | Category 2A |
| Carcinogenicity                             | Category 1A |

#### **Unknown toxicity - Health**

| Acute toxicity, oral              | 69.38 % |
|-----------------------------------|---------|
| Acute toxicity, dermal            | 80.99 % |
| Acute toxicity, inhalation, vapor | 94.51 % |
| Acute toxicity, inhalation, dust  | 82.72 % |
| or mist                           |         |

# Label Elements

Hazard Symbol:



| Signal Word:                                  | Danger   |
|---|--|
| Hazard Statement:                             | Combustible liquid.<br>Harmful if inhaled.<br>Causes skin irritation.<br>Causes serious eye irritation.<br>May cause cancer.   |
| Precautionary<br>Statements                   |  |
| Prevention:                                   | Keep away from heat, hot surfaces, sparks, open flames and other ignition<br>sources. No smoking. Wear protective gloves/protective clothing/eye<br>protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray.<br>Use only outdoors or in a well-ventilated area. Wash thoroughly after<br>handling. Obtain special instructions before use. Do not handle until all<br>safety precautions have been read and understood. Use personal protective<br>equipment as required.  |
| Response:                                     | IF INHALED: Remove person to fresh air and keep comfortable for<br>breathing. IF IN EYES: Rinse cautiously with water for several minutes.<br>Remove contact lenses, if present and easy to do. Continue rinsing. If eye<br>irritation persists: Get medical advice/attention. IF ON SKIN: Wash with<br>plenty of water/ If skin irritation occurs: Get medical advice/attention. Call<br>a POISON CENTER/doctor if you feel unwell. Specific treatment (see on<br>this label). Take off contaminated clothing. In case of fire: Use to<br>extinguish. |
| Storage:                                      | Store in a well-ventilated place. Keep cool. Store locked up.  |
| Disposal:                                     | Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.   |
| Hazard(s) not otherwise<br>classified (HNOC): | None.  |

# 3. Composition/information on ingredients

## Mixtures

| Chemical Identity  | Common<br>name and<br>synonyms | CAS number | Content in percent<br>(%)* |
|--------------------|--------------------------------|------------|----------------------------|
| Castor oil         |                                | 8001-79-4  | 50 - <100%                 |
| Talc               |                                | 14807-96-6 | 10 - <20%                  |
| Aluminum hydroxide |                                | 21645-51-2 | 10 - <20%                  |



| Calcium carbonate                        | 471-34-1   | 5 - <10%  |
|--|------------|-----------|
| Calcium oxide                            | 1305-78-8  | 5 - <10%  |
| Calcium Carbonate (Limestone)            | 1317-65-3  | 1 - <5%   |
| Hydrotreated heavy naphthenic distillate | 64742-52-5 | 0.1 - <1% |
| Magnesite                                | 546-93-0   | 0.1 - <1% |
| Dolomite                                 | 16389-88-1 | 0.1 - <1% |

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# 4. First-aid measures

# Description of necessary first-aid measures

| Inhalation:                                       | Move to fresh air.  |
|---|---|
| Skin Contact:                                     | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention.  |
| Eye contact:                                      | Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.  |
| Ingestion:  | Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.  |
| Personal Protection for First-<br>aid Responders: | Firefighters must use standard protective equipment including flame<br>retardant coat, helmet with face shield, gloves, rubber boots, and in<br>enclosed spaces, SCBA. Firefighters must use standard protective<br>equipment including flame retardant coat, helmet with face shield,<br>gloves, rubber boots, and in enclosed spaces, SCBA. |
| Most important symptoms/effe                      | cts, acute and delayed  |
| Symptoms:   | Respiratory tract irritation. Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.   |
| Hazards:  | No data available.  |
| Indication of immediate medica                    | al attention and special treatment needed   |
| Treatment:  | Symptoms may be delayed.  |
| 5. Fire-fighting measures                         |   |
| General Fire Hazards:                             | Move containers from fire area if you can do so without risk.   |
| Suitable (and unsuitable) extinguishing media     |   |
| Suitable extinguishing media:                     | Use fire-extinguishing media appropriate for surrounding materials. Use fire-extinguishing media appropriate for surrounding materials.   |

| Unsuitable extinguishing | Avoid water in straight hose stream; will scatter and spread fire. Avoid |
|--------------------------|--|
| media:                   | water in straight hose stream; will scatter and spread fire.             |

Specific hazards arising from<br/>the chemical:During fire, gases hazardous to health may be formed. During fire, gases<br/>hazardous to health may be formed.



F

# Special protective equipment and precautions for firefighters

| Special fire fighting procedures:               | No data available.  |
|---|---|
| Special protective equipment for fire-fighters: | Firefighters must use standard protective equipment including flame<br>retardant coat, helmet with face shield, gloves, rubber boots, and in<br>enclosed spaces, SCBA. Firefighters must use standard protective<br>equipment including flame retardant coat, helmet with face shield, gloves,<br>rubber boots, and in enclosed spaces, SCBA. |

| 6. Accidental release measures   |  |
|--|--|
| Personal precautions,<br>protective equipment and<br>emergency procedures: | ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.   |
| Accidental release measures:   | In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.  |
| Methods and material for<br>containment and cleaning<br>up:                | Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.  |
| Environmental Precautions:   | Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.   |
| 7. Handling and storage  |  |
| Handling   |  |
| Technical measures (e.g. Local and general ventilation):                   | Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.   |
| Safe handling advice:  | Provide adequate ventilation. Wear appropriate personal protective<br>equipment. Observe good industrial hygiene practices.Wash hands<br>thoroughly after handling. Do not handle until all safety precautions have<br>been read and understood. Obtain special instructions before use. Use<br>personal protective equipment as required. Avoid contact with eyes. Keep<br>away from heat, hot surfaces, sparks, open flames and other ignition<br>sources. No smoking. Avoid contact with skin.Provide adequate ventilation.<br>Wear appropriate personal protective equipment. Observe good industrial<br>hygiene practices.Wash hands thoroughly after handling. Do not handle<br>until all safety precautions have been read and understood. Obtain special<br>instructions before use. Use personal protective equipment as required.<br>Avoid contact with eyes. Keep away from heat, hot surfaces, sparks, open<br>flames and other ignition sources. No smoking. Avoid contact with skin. |
| Contact avoidance measures:  | No data available.   |



| Hygiene measures:         | Observe good industrial hygiene practices. Wash hands before breaks and<br>immediately after handling the product. Avoid contact with eyes. When<br>using do not smoke. Wash contaminated clothing before reuse. Avoid<br>contact with skin. |
|---------------------------|--|
| Storage                   |  |
| Safe storage conditions:  | Store locked up. Store in a well-ventilated place. Store in a cool place.Store locked up. Store in a well-ventilated place. Store in a cool place.   |
| Safe packaging materials: | No data available.   |

# 8. Exposure controls/personal protection

## **Control Parameters**

# **Occupational Exposure Limits**

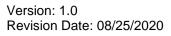
| Chemical Identity  | Туре | Exposure Limit Values                                    | Source  |
|--|------|--|---|
| Talc - Respirable fraction.  | TWA  | 2 mg/m3  | US. ACGIH Threshold Limit Values, as amended (2011)   |
| Talc   | TWA  | 20 millions of<br>particles per<br>cubic foot of<br>air  | US. OSHA Table Z-3 (29 CFR 1910.1000), as<br>amended (2000)                                   |
| Talc - Respirable.   | TWA  | 2.4 millions<br>of particles<br>per cubic foot<br>of air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)                                      |
|  | TWA  | 0.1 mg/m3  | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)                                      |
| Aluminum hydroxide -<br>Respirable fraction.                         | TWA  | 1 mg/m3  | US. ACGIH Threshold Limit Values, as<br>amended (2011)  |
| ·  | TWA  | 5 mg/m3  | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                                   |
| Aluminum hydroxide - Total dust.                                     | TWA  | 15 mg/m3   | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                                   |
|  | TWA  | 50 millions of<br>particles per<br>cubic foot of<br>air  | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                                   |
| Aluminum hydroxide -<br>Respirable fraction.                         | TWA  | 15 millions of<br>particles per<br>cubic foot of<br>air  | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                                   |
| Calcium carbonate - Total dust.                                      | PEL  | 15 mg/m3   | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000), as<br>amended (02 2006) |
| Calcium carbonate -<br>Respirable fraction.                          | PEL  | 5 mg/m3  | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000), as<br>amended (02 2006) |
| Calcium oxide  | TWA  | 2 mg/m3  | US. ACGIH Threshold Limit Values, as<br>amended (2011)  |
|  | PEL  | 5 mg/m3  | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000), as<br>amended (02 2006) |
| Calcium Carbonate<br>(Limestone) - Total dust.                       | PEL  | 15 mg/m3   | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000), as<br>amended (02 2006) |
| Calcium Carbonate<br>(Limestone) - Respirable<br>fraction.           | PEL  | 5 mg/m3  | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000), as<br>amended (02 2006) |
| Hydrotreated heavy<br>naphthenic distillate -<br>Inhalable fraction. | TWA  | 5 mg/m3  | US. ACGIH Threshold Limit Values, as amended (03 2014)  |



| Hydrotreated heavy<br>naphthenic distillate         | PEL | 500 ppm 2,000 mg/m3                                     | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000), as<br>amended (02 2006) |
|---|-----|---|---|
| Hydrotreated heavy<br>naphthenic distillate - Mist. | PEL | 5 mg/m3   | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000), as<br>amended (02 2006) |
| Magnesite - Total dust.                             | PEL | 15 mg/m3  | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000), as<br>amended (02 2006) |
| Magnesite - Respirable<br>fraction.                 | PEL | 5 mg/m3   | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000), as<br>amended (02 2006) |
| Dolomite - Inhalable<br>particles.                  | TWA | 10 mg/m3  | US. ACGIH Threshold Limit Values, as amended (03 2016)  |
| Dolomite - Respirable<br>particles.                 | TWA | 3 mg/m3   | US. ACGIH Threshold Limit Values, as amended (03 2016)  |
| Dolomite - Respirable fraction.                     | TWA | 15 millions of<br>particles per<br>cubic foot of<br>air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                                   |
| Dolomite - Total dust.                              | TWA | 50 millions of<br>particles per<br>cubic foot of<br>air | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                                   |
|   | TWA | 15 mg/m3  | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                                   |
| Dolomite - Respirable fraction.                     | TWA | 5 mg/m3   | US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)                                   |



| Chemical name                                  | Туре | Exposure Limit Values | Source   |
|--|------|-----------------------|--|
| Talc - Respirable.                             | TWA  | 2 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Talc - Respirable dust.                        | TWA  | 3 mg/m3               | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |
| Talc   | TWA  | 2 Fibers/cc           | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(08 2017)   |
| Talc - Respirable fraction.                    | TWA  | 2 mg/m3               | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(08 2017)   |
| Aluminum hydroxide -<br>Respirable.            | TWA  | 1 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Aluminum hydroxide -<br>Respirable fraction.   | TWA  | 3 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (05 2013) |
| Aluminum hydroxide - Total<br>dust.            | TWA  | 10 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (05 2013) |
| Aluminum hydroxide -<br>Respirable fraction.   | TWA  | 1 mg/m3               | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(11 2010)   |
| Aluminum hydroxide -<br>Inhalable fraction.    | TWA  | 10 mg/m3              | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |
| Aluminum hydroxide -<br>Respirable fraction.   | TWA  | 3 mg/m3               | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |
| Aluminum hydroxide - Total dust.               | TWA  | 10 mg/m3              | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |
| Calcium carbonate - Total dust.                | STEL | 20 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Calcium carbonate -<br>Respirable fraction.    | TWA  | 3 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Calcium carbonate - Total dust.                | TWA  | 10 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Calcium carbonate - Total dust.                | TWA  | 10 mg/m3              | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |
| Calcium oxide                                  | TWA  | 2 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Calcium oxide                                  | TWA  | 2 mg/m3               | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(11 2010)   |
| Calcium oxide                                  | TWA  | 2 mg/m3               | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |
| Calcium Carbonate<br>(Limestone) - Total dust. | STEL | 20 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation                                  |





|  |      |           | 296/97, as amended) (07 2007)  |
|--|------|-----------|--|
|  | TWA  | 10 mg/m3  | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Calcium Carbonate<br>(Limestone) - Respirable<br>fraction.           | TWA  | 3 mg/m3   | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Calcium Carbonate<br>(Limestone) - Total dust.                       | TWA  | 10 mg/m3  | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |
| Hydrotreated heavy<br>naphthenic distillate - Mist.                  | TWA  | 0.2 mg/m3 | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (05 2013) |
|  | TWA  | 1 mg/m3   | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (05 2013) |
| Hydrotreated heavy<br>naphthenic distillate -<br>Inhalable fraction. | TWA  | 5 mg/m3   | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |
|  | TWA  | 5 mg/m3   | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |
| Hydrotreated heavy naphthenic distillate - Mist.                     | STEL | 10 mg/m3  | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |
|  | TWA  | 5 mg/m3   | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |



| Magnesite - Total dust.   | TWA | 10 mg/m3    | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |
|---|-----|-------------|--|
| Dolomite - Respirable fraction.                                       | TWA | 3 mg/m3     | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (05 2013) |
| Dolomite - Total dust.  | TWA | 10 mg/m3    | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (05 2013) |
| Dolomite - Respirable fraction.                                       | TWA | 3 mg/m3     | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |
| Dolomite - Inhalable fraction.  | TWA | 10 mg/m3    | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |
| Dolomite - Total dust.  | TWA | 10 mg/m3    | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |
| Stearic acid  | TWA | 10 mg/m3    | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Stearic acid  | TWA | 10 mg/m3    | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(11 2010)   |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable<br>fraction. | TWA | 0.025 mg/m3 | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable<br>fraction. | TWA | 0.10 mg/m3  | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable dust.        | TWA | 0.1 mg/m3   | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |

## Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

#### Individual protection measures, such as personal protective equipment

| Eye/face protection:                | Wear safety glasses with side shields (or goggles). Wear safety glasses with side shields (or goggles).   |
|-------------------------------------|---|
| Skin Protection<br>Hand Protection: | Additional Information: Use suitable protective gloves if risk of skin contact.Additional Information: Use suitable protective gloves if risk of skin contact.  |
| Skin and Body Protection:           | Wear suitable protective clothing. Wear chemical-resistant gloves,<br>footwear, and protective clothing appropriate for the risk of exposure.<br>Contact health and safety professional or manufacturer for specific<br>information. Wear suitable protective clothing. Wear chemical-resistant<br>gloves, footwear, and protective clothing appropriate for the risk of<br>exposure. Contact health and safety professional or manufacturer for<br>specific information. |



| Respiratory Protection: | In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor. In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.  |
|-------------------------|--|
| Hygiene measures:       | Observe good industrial hygiene practices. Wash hands before breaks and<br>immediately after handling the product. Avoid contact with eyes. When<br>using do not smoke. Wash contaminated clothing before reuse. Avoid<br>contact with skin. |

# 9. Physical and chemical properties

| Appearance                                    |   |
|---|---|
| Physical state:                               | liquid  |
| Form:   | Viscous Liquid  |
| Color:  | Tan   |
| Odor:   | Slight odor   |
| Odor threshold:                               | No data available.  |
| pH:   | No data available.  |
| Melting point/freezing point:                 | No data available.  |
| Initial boiling point and boiling range:      | No data available.  |
| Flash Point:                                  | 77 °C 171 °F  |
| Evaporation rate:                             | Slower than n-Butyl Acetate   |
| Flammability (solid, gas):                    | No  |
| Upper/lower limit on flammability or explosi- | ve limits   |
| Flammability limit - upper (%):               | No data available.  |
| Flammability limit - lower (%):               | No data available.  |
| Explosive limit - upper:                      | No data available.  |
| Explosive limit - lower:                      | No data available.  |
| Vapor pressure:                               | No data available.  |
| Vapor density:                                | Vapors are heavier than air and may travel along the floor and in the bottom of containers. |
| Relative density:                             | 1.36  |
| Solubility(ies)                               |   |
| Solubility in water:                          | Insoluble in water  |
| Solubility (other):                           | No data available.  |
| Partition coefficient (n-octanol/water):      | No data available.  |
| Auto-ignition temperature:                    | No data available.  |
| Decomposition temperature:                    | No data available.  |
| Viscosity:                                    | No data available.  |
|   |   |

# 10. Stability and reactivity

| Reactivity:                         | No data available.                          |  |
|-------------------------------------|---|--|
| Chemical Stability:                 | Material is stable under normal conditions. |  |
| Possibility of hazardous reactions: | No data available.                          |  |



| Conditions to avoid:                 | Heat, sparks, flames. Heat, sparks, flames.   |
|--------------------------------------|---|
| Incompatible Materials:              | Alcohols. Amines. Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases. Water, moisture.   |
| Hazardous Decomposition<br>Products: | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |

# 11. Toxicological information

#### Information on likely routes of exposure

| Inhalation:  | In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes. |  |
|--|---|--|
| Skin Contact:  | May be harmful in contact with skin. Causes skin irritation.                                  |  |
| Eye contact:   | Causes serious eye irritation.  |  |
| Ingestion:   | May be harmful if swallowed.  |  |
| Symptoms related to the physical, chemical and toxicological characteristics |   |  |
| Inhalation:  | No data available   |  |

| Inhalation:   | No data available. |
|---------------|--------------------|
| Skin Contact: | No data available. |
| Eye contact:  | No data available. |
| Ingestion:    | No data available. |

## Information on toxicological effects

# Acute toxicity (list all possible routes of exposure)

| Oral<br>Product:                              | Not classified for acute toxicity based on available data. |
|---|--|
| Specified substance(s):<br>Aluminum hydroxide | LD 50 (Rat): > 2,000 mg/kg                                 |
| Calcium carbonate                             | LD 50 (Rat): > 2,000 mg/kg                                 |
| Hydrotreated heavy naphthenic distillate      | LD 50 (Rat): > 5,000 mg/kg                                 |
| Magnesite                                     | LD 50 (Rat): > 2,000 mg/kg                                 |
| Dermal<br>Product:                            | Not classified for acute toxicity based on available data. |



| Specified substance(s):<br>Calcium carbonate                           | LD 50 (Rat): > 2,000 mg/kg   |
|--|--|
| Hydrotreated heavy naphthenic distillate                               | LD 50 (Rabbit): > 5,000 mg/kg  |
| Inhalation<br>Product:   | ATEmix: 2.94 mg/l  |
| Repeated dose toxicity<br>Product:                                     | No data available.   |
| Skin Corrosion/Irritation<br>Product:                                  | No data available.   |
| Specified substance(s):<br>Aluminum hydroxide                          | in vivo (Rabbit): Not classified as an Irritant                        |
| Calcium carbonate  | in vivo (Rabbit): Not irritant   |
| Hydrotreated heavy naphthenic distillate                               | in vivo (Rabbit): Not irritant   |
| Magnesite  | In vitro (Human, in vitro reconstituted epidermis model): Not irritant |
| Serious Eye Damage/Eye Irritati<br>Product:<br>Specified substance(s): | <b>on</b><br>No data available.  |
| Aluminum hydroxide   | Rabbit, 24 hrs: Not irritating   |
| Calcium carbonate  | Rabbit, 24 - 72 hrs: Not irritating                                    |
| Hydrotreated heavy naphthenic distillate                               | Rabbit, 24 hrs: Not irritating   |

Magnesite Reconstituted Corneal Epithelium model, 10 min: Not irritating

#### Respiratory or Skin Sensitization Product: No

t: No data available.

# Carcinogenicity Product:

No data available.



#### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Talc

Overall evaluation: Not classifiable as to carcinogenicity to humans. Overall evaluation: Possibly carcinogenic to humans.

Hydrotreated heavy Overall evaluation: Not classifiable as to carcinogenicity to humans. naphthenic distillate

| US. National Toxicology Program (NTP) Report on Carcinogens: |
|--|
| Hydrotreated heavy   |
| naphthenic distillate  |

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended: No carcinogenic components identified

#### **Germ Cell Mutagenicity**

| In vitro<br>Product:                     | No data available.                                 |
|--|--|
| In vivo<br>Product:                      | No data available.                                 |
| Reproductive toxicity<br>Product:        | No data available.                                 |
| Specific Target Organ Toxici<br>Product: | <b>ity - Single Exposure</b><br>No data available. |
| Specific Target Organ Toxici<br>Product: | ity - Repeated Exposure<br>No data available.      |
| Aspiration Hazard<br>Product:            | No data available.                                 |
| Other effects:                           | No data available.                                 |

# Other effects:

## 12. Ecological information

**Ecotoxicity:** 

Acute hazards to the aquatic environment:



| Fish<br>Product:  | No data available.  |
|---|---|
| Aquatic Invertebrates<br>Product:   | No data available.  |
| Chronic hazards to the aquation   | c environment:  |
| Fish<br>Product:  | No data available.  |
| <b>Specified substance(s):</b><br>Hydrotreated heavy<br>naphthenic distillate | NOAEL (Oncorhynchus mykiss, 14 d): >= 1,000 mg/l QSAR QSAR,<br>Supporting study   |
| Aquatic Invertebrates<br>Product:   | No data available.  |
| Toxicity to Aquatic Plants<br>Product:  | No data available.  |
| Persistence and Degradability   |   |
| Biodegradation<br>Product:  | No data available.  |
| BOD/COD Ratio<br>Product:   | No data available.  |
| Bioaccumulative potential<br>Bioconcentration Factor (BC<br>Product:          | <b>CF)</b><br>No data available.  |
| Partition Coefficient n-octanol / w<br>Product:                               | vater (log Kow)<br>No data available.   |
| Mobility in soil:   | No data available.  |
| Other adverse effects:  | No data available.  |
| 13. Disposal considerations   |   |
| Disposal methods:   | Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |
| Contaminated Packaging:   | No data available.  |



## 14. Transport information

#### TDG:

Not Regulated

# CFR / DOT:

Not Regulated

## IMDG:

Not Regulated

# 15. Regulatory information

#### **US Federal Regulations**

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

# US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

## US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

| Chemical Identity     |
|-----------------------|
| Crystalline Silica    |
| (Quartz)/ Silica Sand |

OSHA hazard(s) kidney effects lung effects immune system effects Cancer

## CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Fire Hazard Immediate (Acute) Health Hazards Delayed (Chronic) Health Hazard Flammable (gases, aerosols, liquids, or solids) Acute toxicity (any route or exposure) Skin Corrosion or Irritation Serious eye damage or eye irritation Carcinogenicity



# US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) None present or none present in regulated quantities.
- Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3) None present or none present in regulated quantities.

#### **US State Regulations**

US. California Proposition 65



WARNING Cancer - www.P65Warnings.ca.gov

#### US. New Jersey Worker and Community Right-to-Know Act

<u>Chemical Identity</u> Talc Calcium carbonate Calcium oxide Calcium Carbonate (Limestone) Hydrotreated heavy naphthenic distillate

#### **US. Massachusetts RTK - Substance List**

# Chemical Identity

Talc Calcium carbonate Calcium Carbonate (Limestone) Crystalline Silica (Quartz)/ Silica Sand

#### US. Pennsylvania RTK - Hazardous Substances

<u>Chemical Identity</u> Talc Calcium carbonate Calcium oxide Calcium Carbonate (Limestone)

# US. Rhode Island RTK

<u>Chemical Identity</u> Talc Aluminum hydroxide Calcium carbonate Calcium Carbonate (Limestone)

## International regulations

# Montreal protocol

Not applicable

#### Stockholm convention

Not applicable



# **Rotterdam convention**

Not applicable

# Kyoto protocol Not applicable

## VOC:

| Regulatory VOC (less water and exempt solvent) | : | 1 g/l  |
|--|---|--------|
| VOC Method 310                                 | : | 0.07 % |



Version: 1.0 Revision Date: 08/25/2020

| Inventory Status:<br>Australia AICS:     | One or more components in this product are not listed on or exempt from the Inventory. |
|--|--|
| Canada DSL Inventory List:               | All components in this product are listed on or exempt from the Inventory.             |
| Canada NDSL Inventory:                   | One or more components in this product are not listed on or exempt from the Inventory. |
| Ontario Inventory:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| China Inv. Existing Chemical Substances: | All components in this product are listed on or exempt from the Inventory.             |
| Japan (ENCS) List:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan ISHL Listing:                      | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan Pharmacopoeia Listing:             | One or more components in this product are not listed on or exempt from the Inventory. |
| Korea Existing Chemicals Inv. (KECI):    | All components in this product are listed on or exempt from the Inventory.             |
| Mexico INSQ:                             | One or more components in this product are not listed on or exempt from the Inventory. |
| New Zealand Inventory of Chemicals:      | All components in this product are listed on or exempt from the Inventory.             |
| Philippines PICCS:                       | All components in this product are listed on or exempt from the Inventory.             |
| Taiwan Chemical Substance Inventory:     | One or more components in this   |



|                        | product are not listed on or exempt from the Inventory.                                |
|------------------------|--|
| US TSCA Inventory:     | All components in this product are<br>listed on or exempt from the<br>Inventory.       |
| EINECS, ELINCS or NLP: | One or more components in this product are not listed on or exempt from the Inventory. |

# 16.Other information, including date of preparation or last revision

| Revision Date:       | 08/25/2020  |
|----------------------|---|
| Version #:           | 1.0   |
| Further Information: | No data available.  |
| Disclaimer:          | For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition. |



# SAFETY DATA SHEET

# 1. Identification

#### Product identifier: VULKEM 950 CATALYST Product Code: 365420PK805

#### Recommended use and restriction on use

Recommended use: Curative Restrictions on use: Not known.

#### Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S. Roofing 3735 Green Road Beachwood OH 44122 US

Contact person: Telephone: Emergency telephone number: EH&S Department 216-292-5000 1-800-424-9300 (US); 1-613-996-6666 (Canada)

#### 2. Hazard(s) identification

#### **Hazard Classification**

# Health Hazards

| Category 4               |
|--------------------------|
|                          |
| Category 2               |
| Category 2A              |
| Category 1               |
| Category 1               |
| Category 2               |
| Category 3 <sup>1.</sup> |
| Category 2               |
|                          |

#### Target Organs

1. Respiratory tract irritation.

#### **Unknown toxicity - Health**

| Acute toxicity, oral                     | 48.76 % |
|--|---------|
| Acute toxicity, dermal                   | 48.76 % |
| Acute toxicity, inhalation, vapor        | 33.53 % |
| Acute toxicity, inhalation, dust or mist | 33.53 % |



# Label Elements

Hazard Symbol:

| Signal Word:                                  | Danger   |
|---|--|
| Hazard Statement:                             | Causes skin irritation.<br>May cause allergy or asthma symptoms or breathing difficulties if inhaled.<br>May cause an allergic skin reaction.<br>Suspected of causing cancer.  |
| Precautionary<br>Statements                   |  |
| Prevention:                                   | Wash thoroughly after handling. Wear protective gloves/protective<br>clothing/eye protection/face protection. Avoid breathing<br>dust/fume/gas/mist/vapors/spray. [In case of inadequate ventilation] wear<br>respiratory protection. Contaminated work clothing should not be allowed<br>out of the workplace. Obtain special instructions before use. Do not handle<br>until all safety precautions have been read and understood. Use personal<br>protective equipment as required. |
| Response:                                     | IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor/ IF ON SKIN: Wash with plenty of water/ If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Specific treatment (see on this label). Wash contaminated clothing before reuse.   |
| Storage:                                      | Store locked up.   |
| Disposal:                                     | Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.   |
| Hazard(s) not otherwise<br>classified (HNOC): | None.  |

# 3. Composition/information on ingredients

#### Mixtures



| Chemical Identity                    | Common<br>name and<br>synonyms | CAS number | Content in percent<br>(%)* |
|--------------------------------------|--------------------------------|------------|----------------------------|
| 4,4'-Methylene bis(phenylisocyanate) |                                | 101-68-8   | 50 - <100%                 |
| Diphenylmethane diisocyanate         |                                | 26447-40-5 | 10 - <20%                  |

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# 4. First-aid measures

### Description of necessary first-aid measures

| Inhalation:                                       | Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.  |  |  |
|---|--|--|--|
| Skin Contact:                                     | Get medical attention. Destroy or thoroughly clean contaminated<br>shoes. Immediately remove contaminated clothing and shoes and<br>wash skin with soap and plenty of water. If skin irritation or an allergic<br>skin reaction develops, get medical attention. |  |  |
| Eye contact:                                      | Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.   |  |  |
| Ingestion:  | Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.   |  |  |
| Personal Protection for First-<br>aid Responders: | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.  |  |  |
| Most important symptoms/effe                      | cts, acute and delayed   |  |  |
| Symptoms:   | Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Respiratory tract irritation.  |  |  |
| Hazards:  | No data available.   |  |  |
| Indication of immediate medica                    | al attention and special treatment needed  |  |  |
| Treatment:  | Symptoms may be delayed.   |  |  |
| 5. Fire-fighting measures                         |  |  |  |
| General Fire Hazards:                             | No unusual fire or explosion hazards noted.  |  |  |
| Suitable (and unsuitable) extinguishing media     |  |  |  |
| Suitable extinguishing media:                     | Use fire-extinguishing media appropriate for surrounding materials.  |  |  |
| Unsuitable extinguishing media:                   | Do not use water jet as an extinguisher, as this will spread the fire.   |  |  |
| Specific hazards arising from the chemical:       | During fire, gases hazardous to health may be formed.  |  |  |



# Special protective equipment and precautions for firefighters

| Special fire fighting<br>procedures:            | No data available.  |
|---|---|
| Special protective equipment for fire-fighters: | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |

# 6. Accidental release measures

| Personal precautions,<br>protective equipment and<br>emergency procedures: | Ventilate closed spaces before entering them. Evacuate area. See Section<br>8 of the SDS for Personal Protective Equipment. Keep upwind. Keep<br>unauthorized personnel away. Do not touch damaged containers or spilled<br>material unless wearing appropriate protective clothing.  |
|--|---|
| Accidental release measures:   | In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.   |
| Methods and material for<br>containment and cleaning<br>up:                | Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.   |
| Environmental Precautions:   | Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.  |
| 7. Handling and storage  |   |
| Handling   |   |
| Technical measures (e.g. Local and general ventilation):                   | Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.  |
| Safe handling advice:  | Provide adequate ventilation. Wear appropriate personal protective<br>equipment. Observe good industrial hygiene practices.Wash hands<br>thoroughly after handling. Do not handle until all safety precautions have<br>been read and understood. Obtain special instructions before use. Use<br>personal protective equipment as required. Avoid contact with eyes. Do not<br>breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid<br>contact with eyes, skin, and clothing. |
| Contact avoidance measures:  | No data available.  |
| Hygiene measures:  | Observe good industrial hygiene practices. Wash hands before breaks and<br>immediately after handling the product. Avoid contact with eyes. Wash<br>contaminated clothing before reuse. Avoid contact with skin. Contaminated<br>work clothing should not be allowed out of the workplace.  |
| Storage  |   |
| Safe storage conditions:   | Store locked up.  |
| Safe packaging materials:  | No data available.  |



# 8. Exposure controls/personal protection

# **Control Parameters**

# **Occupational Exposure Limits**

| Chemical Identity     | Туре    | Exposure Limi | t Values  | Source                               |
|-----------------------|---------|---------------|-----------|--------------------------------------|
| 4,4'-Methylene        | TWA     | 0.005 ppm     |           | US. ACGIH Threshold Limit Values, as |
| bis(phenylisocyanate) |         |               |           | amended (2011)                       |
|                       | Ceiling | 0.02 ppm      | 0.2 mg/m3 | US. OSHA Table Z-1 Limits for Air    |
|                       |         |               |           | Contaminants (29 CFR 1910.1000), as  |
|                       |         |               |           | amended (02 2006)                    |

| Chemical name                           | Туре    | Exposure Limit Values | Source   |
|---|---------|-----------------------|--|
| 4,4'-Methylene<br>bis(phenylisocyanate) | CEILING | 0.01 ppm              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
|   | TWA     | 0.005 ppm             | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| 4,4'-Methylene<br>bis(phenylisocyanate) | TWA     | 0.005 ppm             | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |
|   | CEV     | 0.02 ppm              | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |
| 4,4'-Methylene<br>bis(phenylisocyanate) | TWA     | 0.005 ppm 0.051 mg/m3 | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |
| Polymethylene polyphenyl<br>isocyanate  | TWA     | 0.005 ppm             | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
|   | CEILING | 0.01 ppm              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Diphenylmethane<br>diisocyanate         | TWA     | 0.005 ppm             | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
|   | CEILING | 0.01 ppm              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |

| Chemical name                           | Туре    | Exposure Limit Values | Source   |
|---|---------|-----------------------|--|
| 4,4'-Methylene<br>bis(phenylisocyanate) | CEILING | 0.01 ppm              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
|   | TWA     | 0.005 ppm             | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| 4,4'-Methylene<br>bis(phenylisocyanate) | TWA     | 0.005 ppm             | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |
|   | CEV     | 0.02 ppm              | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents), as amended<br>(06 2015)   |



| 4,4'-Methylene<br>bis(phenylisocyanate) | TWA     | 0.005 ppm 0.051 mg/m3 | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation respecting occupational health and<br>safety), as amended (09 2017)  |
|---|---------|-----------------------|--|
| Polymethylene polyphenyl<br>isocyanate  | TWA     | 0.005 ppm             | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
|   | CEILING | 0.01 ppm              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Diphenylmethane<br>diisocyanate         | TWA     | 0.005 ppm             | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
|   | CEILING | 0.01 ppm              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |

#### Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

## Individual protection measures, such as personal protective equipment

| Eye/face protection:                | Wear safety glasses with side shields (or goggles).   |
|-------------------------------------|---|
| Skin Protection<br>Hand Protection: | Additional Information: Use suitable protective gloves if risk of skin contact.   |
| Skin and Body Protection:           | Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.  |
| Respiratory Protection:             | If engineering controls do not maintain airborne concentrations below<br>recommended exposure limits (where applicable) or to an acceptable level<br>(in countries where exposure limits have not been established), an<br>approved respirator must be worn. Air-purifying respirator with an<br>appropriate, government approved (where applicable), air-purifying filter,<br>cartridge or canister. Contact health and safety professional or<br>manufacturer for specific information. |
| Hygiene measures:                   | Observe good industrial hygiene practices. Wash hands before breaks and<br>immediately after handling the product. Avoid contact with eyes. Wash<br>contaminated clothing before reuse. Avoid contact with skin. Contaminated<br>work clothing should not be allowed out of the workplace.  |

# 9. Physical and chemical properties

#### Appearance

| Physical state: | liquid |
|-----------------|--------|
| Form:           | liquid |
| Color:          | Amber  |



| Odor:   | Mild  |
|---|---|
| Odor threshold:                               | No data available.  |
| pH:   | No data available.  |
| Melting point/freezing point:                 | No data available.  |
| Initial boiling point and boiling range:      | No data available.  |
| Flash Point:                                  | > 177 °C > 350 °F(Pensky-Martens Closed Cup)  |
| Evaporation rate:                             | Slower than Ether   |
| Flammability (solid, gas):                    | No  |
| Upper/lower limit on flammability or explosi- | ve limits   |
| Flammability limit - upper (%):               | No data available.  |
| Flammability limit - lower (%):               | No data available.  |
| Explosive limit - upper:                      | No data available.  |
| Explosive limit - lower:                      | No data available.  |
| Vapor pressure:                               | No data available.  |
| Vapor density:                                | Vapors are heavier than air and may travel along the floor and in the bottom of containers. |
| Relative density:                             | 1.22  |
| Solubility(ies)                               |   |
| Solubility in water:                          | Practically Insoluble   |
| Solubility (other):                           | No data available.  |
| Partition coefficient (n-octanol/water):      | No data available.  |
| Auto-ignition temperature:                    | No data available.  |
| Decomposition temperature:                    | No data available.  |
| Viscosity:                                    | No data available.  |
|   |   |

# 10. Stability and reactivity

| Reactivity:                            | No data available.  |
|--|---|
| Chemical Stability:                    | Material is stable under normal conditions.   |
| Possibility of hazardous<br>reactions: | No data available.  |
| Conditions to avoid:                   | Avoid heat or contamination.  |
| Incompatible Materials:                | Alcohols. Amines. Strong acids. Strong bases. Water, moisture.                                  |
| Hazardous Decomposition<br>Products:   | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |

# 11. Toxicological information

# Information on likely routes of exposure

| Inhalation:   | In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes. |
|---------------|---|
| Skin Contact: | Causes skin irritation. May cause an allergic skin reaction.                                  |
| Eye contact:  | Causes serious eye irritation.  |



| Ingestion:  | May be harmful if swallowed.                               |
|---|--|
| Symptoms related to the physica   | II, chemical and toxicological characteristics             |
| Inhalation:   | No data available.   |
| Skin Contact:   | No data available.   |
| Eye contact:  | No data available.   |
| Ingestion:  | No data available.   |
| Information on toxicological effe   | cts  |
| Acute toxicity (list all possible   | routes of exposure)  |
| Oral<br>Product:  | ATEmix: 2,000 mg/kg  |
| Dermal<br>Product:  | Not classified for acute toxicity based on available data. |
| <b>Specified substance(s):</b><br>4,4'-Methylene<br>bis(phenylisocyanate)   | LD 50 (Rabbit): > 9,400 mg/kg                              |
| Inhalation<br>Product:  | ATEmix: 11 mg/l<br>ATEmix : 1.5 mg/l                       |
| Repeated dose toxicity<br>Product:  | No data available.   |
| Skin Corrosion/Irritation<br>Product:   | No data available.   |
| <b>Specified substance(s):</b><br>4,4'-Methylene<br>bis(phenylisocyanate)   | in vivo (Rabbit): Irritating                               |
| Serious Eye Damage/Eye Irritation<br>Product: No data available.  |  |
| Respiratory or Skin SensitizationProduct:May cause allergy or asthma symptoms or breathing difficulties if inhaled.<br>May cause sensitization by inhalation. |  |
| Carcinogenicity<br>Product:   | Suspected of causing cancer.                               |



| IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:<br>No carcinogenic components identified              |  |  |
|--|--|--|
| US. National Toxicology Program (NTP) Report on Carcinogens:<br>No carcinogenic components identified                    |  |  |
| US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:<br>No carcinogenic components identified |  |  |
| Germ Cell Mutagenicity   |  |  |
| In vitro<br>Product:   | No data available.                               |  |
| In vivo<br>Product:  | No data available.                               |  |
| Reproductive toxicity<br>Product:  | No data available.                               |  |
| Specific Target Organ Toxicity<br>Product:   | <b>y - Single Exposure</b><br>No data available. |  |
| Specific Target Organ Toxicity - Repeated Exposure<br>Product: No data available.  |  |  |
| <b>Target Organs</b><br>Specific Target Organ Toxicity - Single Exposure: Respiratory tract irritation.                  |  |  |
| Aspiration Hazard<br>Product:  | No data available.                               |  |
| Other effects:   | No data available.                               |  |
|  |  |  |

# 12. Ecological information

# Ecotoxicity:

# Acute hazards to the aquatic environment:

Fish Product:

No data available.

#### Aquatic Invertebrates Product:

No data available.

Chronic hazards to the aquatic environment:



Fish

| Product:  | No data available.  |  |
|---|---|--|
| Aquatic Invertebrates<br>Product:   | No data available.  |  |
| Toxicity to Aquatic Plants<br>Product:  | No data available.  |  |
| Persistence and Degradability   |   |  |
| Biodegradation<br>Product:  | No data available.  |  |
| BOD/COD Ratio<br>Product:   | No data available.  |  |
| Bioaccumulative potential<br>Bioconcentration Factor (BCF)<br>Product: No data available. |   |  |
| Partition Coefficient n-octanol / water (log Kow)   Product: No data available.           |   |  |
| Mobility in soil:   | No data available.  |  |
| Other adverse effects:  | No data available.  |  |
| 13. Disposal considerations   |   |  |
| Disposal methods:   | Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |  |
| Contaminated Packaging:   | No data available.  |  |
| 14. Transport information   |   |  |
|   |   |  |

# TDG:

Not Regulated

# CFR / DOT:



Not Regulated

IMDG:

Not Regulated

## 15. Regulatory information

#### **US Federal Regulations**

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

# US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended None present or none present in regulated quantities.

#### CERCLA Hazardous Substance List (40 CFR 302.4):

| Chemical Identity     | <b>Reportable quantity</b> |
|-----------------------|----------------------------|
| 4,4'-Methylene        | 5000 lbs.                  |
| bis(phenylisocyanate) |                            |

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### **Hazard categories**

Immediate (Acute) Health Hazards Delayed (Chronic) Health Hazard Acute toxicity (any route or exposure) Skin Corrosion or Irritation Serious eye damage or eye irritation Respiratory or Skin Sensitization Carcinogenicity Specific target organ toxicity (single or repeated exposure)

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

#### **Chemical Identity**

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3) None present or none present in regulated quantities.

#### US State Regulations

#### US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.



# US. New Jersey Worker and Community Right-to-Know Act

#### **Chemical Identity**

4,4'-Methylene bis(phenylisocyanate) Polymethylene polyphenyl isocyanate Diphenylmethane diisocyanate

# **US. Massachusetts RTK - Substance List**

<u>Chemical Identity</u> 4,4'-Methylene bis(phenylisocyanate)

#### US. Pennsylvania RTK - Hazardous Substances

#### Chemical Identity

4,4'-Methylene bis(phenylisocyanate)

## US. Rhode Island RTK

<u>Chemical Identity</u> 4,4'-Methylene bis(phenylisocyanate)

#### International regulations

## **Montreal protocol**

Not applicable

#### Stockholm convention

Not applicable

## **Rotterdam convention**

Not applicable

## Kyoto protocol

Not applicable

# VOC:

| Regulatory VOC (less water and exempt solvent) | : | 0 g/l  |
|--|---|--------|
| VOC Method 310                                 | : | 0.00 % |



| Inventory Status:<br>Australia AICS:     | All components in this product are listed on or exempt from the Inventory.             |
|--|--|
| Canada DSL Inventory List:               | All components in this product are listed on or exempt from the Inventory.             |
| EINECS, ELINCS or NLP:                   | One or more components in this product are not listed on or exempt from the Inventory. |
| China Inv. Existing Chemical Substances: | All components in this product are listed on or exempt from the Inventory.             |
| Korea Existing Chemicals Inv. (KECI):    | All components in this product are listed on or exempt from the Inventory.             |
| Canada NDSL Inventory:                   | One or more components in this product are not listed on or exempt from the Inventory. |
| Philippines PICCS:                       | All components in this product are listed on or exempt from the Inventory.             |
| US TSCA Inventory:                       | All components in this product are listed on or exempt from the Inventory.             |
| New Zealand Inventory of Chemicals:      | All components in this product are listed on or exempt from the Inventory.             |
| Japan Pharmacopoeia Listing:             | One or more components in this product are not listed on or exempt from the Inventory. |
| Mexico INSQ:                             | One or more components in this product are not listed on or exempt from the Inventory. |
| Ontario Inventory:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| Taiwan Chemical Substance Inventory:     | One or more components in this   |



|                     | product are not listed on or exempt from the Inventory.                                |
|---------------------|--|
| Japan (ENCS) List:  | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan ISHL Listing: | One or more components in this product are not listed on or exempt from the Inventory. |

# 16.Other information, including date of preparation or last revision

| Revision Date:       | 08/25/2020  |
|----------------------|---|
| Version #:           | 1.0   |
| Further Information: | No data available.  |
| Disclaimer:          | For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition. |