SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: MACROPOXY® 646 Fast Cure Epoxy (Part B) - Hardener
Product code: B58V600

1.2 Relevant identified uses of the substance or mixture and uses advised against

Material uses: Paint or paint related material.
Industrial use only.

1.3 Details of the supplier of the safety data sheet

Mfg. in U.S.A and exported by:
The Sherwin-Williams Company
101 Prospect Avenue N.W.
Cleveland, OH 44115

Imported by: Valspar B.V.
Zuiveringweg 89
8243 PE Lelystad
P.O. Box 2139
The Netherlands
Phone: +31 (0)320 29 22 00

e-mail address of person responsible for this SDS: sds@sherwin.com

1.4 Emergency telephone number

National advisory body/Poison Center
Telephone number: +372 626 93 90

Supplier
Telephone number: +1 703-741-5970
Hours of operation: Emergency contact available 24 hours a day

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Flam. Liq. 3, H226
Skin Irrit. 2, H315
Eye Irrit. 2, H319
Skin Sens. 1, H317
STOT RE 1, H372
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements
SECTION 2: Hazards identification

Hazard pictograms:

- Flammable (Flame)
- Skin Irritant (Person)
- Poisoning (Exclamation Mark)

Signal word: Danger

Hazard statements:
- Causes serious eye irritation.
- Causes skin irritation.
- May cause an allergic skin reaction.
- Causes damage to organs through prolonged or repeated exposure.
- Hazardous to aquatic life with long lasting effects.

Precautionary statements:

Prevention:
- Wear protective gloves.
- Wear protective clothing.
- Wear eye or face protection.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
- No smoking.
- Avoid release to the environment.
- Do not breathe vapor.

Response:
- IF ON SKIN (or hair): Take off immediately all contaminated clothing.
- Rinse skin with water.
- IF IN EYES: Rinse cautiously with water for several minutes.
- Call a POISON CENTER or doctor/physician.

Storage:
- Not applicable.

Disposal:
- Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients:
- Crystalline Silica, respirable powder
- Epoxy Polymer

Supplemental label elements:
- FOR INDUSTRIAL USE ONLY

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:
- Not applicable.

Special packaging requirements:
- Not applicable.

2.3 Other hazards:

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification:
- None known.

SECTION 3: Composition/information on ingredients

3.2 Mixture:

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica, respirable powder</td>
<td>EC: 238-878-4, CAS: 14808-60-7, REACH #: 01-2119456619-26, EC: 216-823-5</td>
<td>≥50 - ≤75</td>
<td>STOT RE 1, H372 (inhalation)</td>
<td>[1]</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 27, Mar, 2020
Date of previous issue: 10, Feb, 2020
Version: 5.02
SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS:</th>
<th>Index:</th>
<th>REACH #:</th>
<th>EC:</th>
<th>CAS:</th>
<th>Index:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene, mixed isomers</td>
<td>108-10-1</td>
<td>606-004-00-4</td>
<td>01-2119488216-32</td>
<td>215-535-7</td>
<td>1330-20-7</td>
<td>601-022-00-9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance classified with a health or environmental hazard</td>
<td>Substance with a workplace exposure limit</td>
<td>Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII</td>
<td>Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</td>
<td>Substance of equivalent concern</td>
<td>Additional disclosure due to company policy</td>
<td></td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

SECTION 4: First aid measures

4.1 Description of first aid measures

**General:** In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

**Eye contact:** Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

**Inhalation:** Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

**Skin contact:** Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

**Ingestion:** If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

**Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.
SECTION 4: First aid measures

Contains bis-[4-(2,3-epoxipropoxy)phenyl]propane. May produce an allergic reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Recommended: alcohol-resistant foam, carbon dioxide, powders.

Unsuitable extinguishing media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazard from the substance or mixture: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous combustion products: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters: Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters: Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8. Keep unnecessary and unprotected personnel from entering.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions: Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and materials for containment and cleaning up: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

6.4 Reference to other sections: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.
SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses.

Information on fire and explosion protection

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapors in all cases. In such circumstances, they should wear a compressed-air-fed respirator during the spraying process and until the particulate and solvent vapor concentrations have fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidizing agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Contaminated absorbent material may pose the same hazard as the spilled product.

7.3 Specific end use(s)

Recommendations

Not available.

Industrial sector specific solutions

Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.
## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica, respirable powder</td>
<td>Occupational exposure limits, Regulation No. 293 (Estonia, 3/2018). TWA: 0.1 mg/m³ 8 hours. Form: respirable dust</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>Occupational exposure limits, Regulation No. 293 (Estonia, 3/2018). TWA: 83 mg/m³ 8 hours. TWA: 20 ppm 8 hours. STEL: 208 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes.</td>
</tr>
<tr>
<td>Xylene, mixed isomers</td>
<td>Occupational exposure limits, Regulation No. 293 (Estonia, 3/2018). Absorbed through skin. TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. STEL: 450 mg/m³ 15 minutes. TWA: 200 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

#### Recommended monitoring procedures

- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

- Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

#### DNELs/DMELs

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Type</th>
<th>Exposure</th>
<th>Value</th>
<th>Population</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>DNEL Short term</td>
<td>Inhalation</td>
<td>208 mg/m³</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>DNEL Long term</td>
<td>Inhalation</td>
<td>83 mg/m³</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>DNEL Long term</td>
<td>Dermal</td>
<td>11.8 mg/kg bw/day</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>DNEL Short term</td>
<td>Inhalation</td>
<td>155.2 mg/m³</td>
<td>General population [Consumers]</td>
<td>Systemic</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>DNEL Long term</td>
<td>Inhalation</td>
<td>14.7 mg/m³</td>
<td>General population [Consumers]</td>
<td>Systemic</td>
</tr>
</tbody>
</table>
SECTION 8: Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Compartment Detail</th>
<th>Value</th>
<th>Method Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>Fresh water</td>
<td>0.6 mg/l</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.06 mg/l</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sewage Treatment</td>
<td>27.5 mg/l</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>8.27 mg/kg dwt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marine water sediment</td>
<td>0.83 mg/kg dwt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>1.3 mg/kg dwt</td>
<td></td>
</tr>
<tr>
<td>Xylene, mixed isomers</td>
<td>Fresh water</td>
<td>0.327 mg/l</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.327 mg/l</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>12.46 mg/l</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sewage Treatment</td>
<td>6.58 mg/l</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>2.31 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marine water sediment</td>
<td>12.46 mg/l</td>
<td></td>
</tr>
</tbody>
</table>

PNECs

8.2 Exposure controls

Appropriate engineering controls: Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

Individual protection measures

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Date of previous issue: 10, Feb, 2020
Version: 5.02
SECTION 8: Exposure controls/personal protection

**Hygiene measures**
- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**
- Use safety eyewear designed to protect against splash of liquids.

**Skin protection**

**Hand protection**
- Wear suitable gloves tested to EN374.
- Gloves for short term exposure/splash protection (less than 10 min.): Nitrile > 0.12 mm
- Gloves for splash protection need to be changed immediately when in contact with chemicals.
- Gloves for repeated or prolonged exposure (breakthrough time > 240 min.) When the hazardous ingredients in Section 3 contain any of the following: Aromatic solvents (Xylene, Toluene) or Aliphatic solvents or Mineral Oil use: Polyvinyl alcohol (PVA) gloves 0.2-0.3 mm
- Otherwise use: Butyl gloves > 0.3 mm
- For long term exposure or spills (breakthrough time > 480 min.): Use PE laminated gloves as under gloves
- Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.
- The recommendation for the type or types of glove to use when handling this product is based on information from the following source: Solvent resin manufacturers and European Solvents Industry Group (ESIG)
- There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
- The breakthrough time must be greater than the end use time of the product.
- The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
- Gloves should be replaced regularly and if there is any sign of damage to the glove material.
- Always ensure that gloves are free from defects and that they are stored and used correctly.
- The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
- Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.
- The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

**Body protection**
- Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.

**Other skin protection**
- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**
- Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Recommended: A2P2 (EN14387). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
SECTION 8: Exposure controls/personal protection

Environmental exposure controls

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user’s own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.
Color : Not available.
Odor : Solvent.
Odor threshold : Not Available (Not Tested).
pH : Not relevant/applicable due to nature of the product.
Melting point/freezing point : Not relevant/applicable due to nature of the product.
Initial boiling point and boiling range : 113°C
Flash point : Closed cup: 23°C [Pensky-Martens Closed Cup]
Evaporation rate : 1.62 (butyl acetate = 1)
Flammability (solid, gas) : Not relevant/applicable due to nature of the product.
Upper/lower flammability or explosive limits : LEL: 1% (Xylene, mixed isomers)
UEL: 7.5% (Methyl Isobutyl Ketone)
Vapor pressure : 2.1 kPa [at 20°C]
Vapor density : 3.45 [Air = 1]
Relative density : 1.61
Solubility(ies) : Not relevant/applicable due to nature of the product.
Partition coefficient: n-octanol/water : Not relevant/applicable due to nature of the product.
Auto-ignition temperature : Not relevant/applicable due to nature of the product.
Decomposition temperature : Not relevant/applicable due to nature of the product.
Viscosity : Kinematic (40°C): >0.205 cm²/s
Explosive properties : Under normal conditions of storage and use, hazardous reactions will not occur.
Oxidizing properties : Under normal conditions of storage and use, hazardous reactions will not occur.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : Stable under recommended storage and handling conditions (see Section 7).

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products

Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains bis-[4-(2,3-epoxipropoxy)phenyl]propane. May produce an allergic reaction.

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy Polymer</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>20 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2080 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Xylene, mixed isomers</td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>5000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4300 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>60812.02 mg/kg</td>
</tr>
<tr>
<td>Inhalation (gases)</td>
<td>276418.29 ppm</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>114.56 mg/l</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy Polymer</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours</td>
<td>2 mg</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>500 mg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>24 hours 100</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>40 mg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>24 hours 500</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Xylene, mixed isomers</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>87 mg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>24 hours 5</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rat</td>
<td>8 hours 60 UI</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>24 hours 500</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>100 %</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary

Sensitization

No data available
SECTION 11: Toxicological information

**Conclusion/Summary**: Not available.

**Mutagenicity**: 
No data available

**Carcinogenicity**: 
No data available

**Reproductive toxicity**: 
No data available

**Teratogenicity**: 
No data available

**Specific target organ toxicity (single exposure)**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>Xylene, mixed isomers</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

**Specific target organ toxicity (repeated exposure)**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica, respirable powder</td>
<td>Category 1</td>
<td>Inhalation</td>
<td>Not determined</td>
</tr>
<tr>
<td>Xylene, mixed isomers</td>
<td>Category 2</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

**Aspiration hazard**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene, mixed isomers</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

**Other information**: Not available.

SECTION 12: Ecological information

**12.1 Toxicity**

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>Acute LC50 505000 µg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 78 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 168 mg/l Fresh water</td>
<td>Fish - Pimephales promelas - Embryo</td>
<td>33 days</td>
</tr>
<tr>
<td>Xylene, mixed isomers</td>
<td>Acute LC50 8500 µg/l Marine water</td>
<td>Crustaceans - Palaemonetes pugio</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 13400 µg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**12.2 Persistence and degradability**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion/Summary**: Not available.
SECTION 12: Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td>Xylene, mixed isomers</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{low}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene, mixed isomers</td>
<td>-</td>
<td>8.1 to 25.9</td>
<td>low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

- **Soil/water partition coefficient (K_{OC})**: Not available.
- **Mobility**: Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

- No known significant effects or critical hazards.
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

**Product**

- **Waste treatment methods**
  - The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste**

- Yes.

**European waste catalogue (EWC)**

- waste paint and varnish containing organic solvents or other hazardous substances 08 01 11*

**Disposal considerations**

- Do not allow to enter drains or watercourses.
- Dispose of according to all federal, state and local applicable regulations.
- If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.
- For further information, contact your local waste authority.

**Packaging**

- **Waste treatment methods**
  - The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

- **Disposal considerations**
  - Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

- **European waste catalogue (EWC)**
  - packaging containing residues of or contaminated by hazardous substances 15 01 10*
SECTION 13: Disposal considerations

**Special precautions**: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
</tr>
</tbody>
</table>

**14.2 UN proper shipping name**: PAINT

**14.3 Transport Hazard Class(es)/Label(s)**: 3

**14.4 Packing group**: III

**14.5 Environmental hazards**: No.

**Additional information**
- **Tunnel code**: D/E
- **Emergency schedules**: F-E, S-E

**14.6 Special precautions for user**: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**: Not applicable.

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XIV - List of substances subject to authorization**

**Annex XIV**: None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**: Not applicable.
SECTION 15: Regulatory information

**Other EU regulations**

- **VOC content (2010/75/EU)**: 12.1 w/w
  
- **g/l**: 196

**Seveso Directive**

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

**National regulations**

**15.2 Chemical Safety Assessment**

- No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

- Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative
- N/A = Not available

**Key literature references and sources for data**

- Regulation (EC) No. 1272/2008 [CLP]
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- IATA = International Air Transport Association
- IMDG = International Maritime Dangerous Goods
- Directive 2012/18/EU, and relative amendments & additions
- Directive 2009/161/EU, and relative amendments & additions
- CEPE Guidelines

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 3, H226</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Irrit. 2, H319</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Sens. 1, H317</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT RE 1, H372</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 3, H412</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

**Full text of abbreviated H statements**

- H225: Highly flammable liquid and vapor.
- H226: Flammable liquid and vapor.
- H304: May be fatal if swallowed and enters airways.
- H312: Harmful in contact with skin.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H332: Harmful if inhaled.
- H335: May cause respiratory irritation.
- H372: Causes damage to organs through prolonged or repeated exposure if inhaled.

Date of issue/Date of revision: 27, Mar, 2020
Date of previous issue: 10, Feb, 2020
Version: 5.02
### Full text of classifications [CLP/GHS]

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

**Acute Tox. 4, H312**  
ACUTE TOXICITY (dermal) - Category 4

**Acute Tox. 4, H332**  
ACUTE TOXICITY (inhalation) - Category 4

**Aquatic Chronic 2, H411**  
AQUATIC HAZARD (LONG-TERM) - Category 2

**Aquatic Chronic 3, H412**  
AQUATIC HAZARD (LONG-TERM) - Category 3

**Asp. Tox. 1, H304**  
ASPIRATION HAZARD - Category 1

**EUH066**  
Repeated exposure may cause skin dryness or cracking.

**Eye Irrit. 2, H319**  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

**Flam. Liq. 2, H225**  
FLAMMABLE LIQUIDS - Category 2

**Flam. Liq. 3, H226**  
FLAMMABLE LIQUIDS - Category 3

**Skin Irrit. 2, H315**  
SKIN CORROSION/IRRITATION - Category 2

**Skin Sens. 1, H317**  
SKIN SENSITIZATION - Category 1

**STOT RE 1, H372**  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 1

**STOT RE 1, H372**  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

**STOT RE 2, H373**  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

**STOT SE 3, H335**  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

**Notice to reader**

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.