SAFETY DATA SHEET

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

| 1.1 Product identifier | |
|--|---|
| Product name | : MACROPOXY G280 Epoxy Blast Primer - Additive |
| Product code | : G280A |
| 1 2 Polovant identified use | s of the substance or mixture and uses advised against |
| Material uses | - |
| waterial uses | Paint or paint related material.Industrial use only. |
| | |
| 1.3 Details of the supplier o sheet | f the safety data |
| Sherwin-Williams UK Limite | d - Protective & Marine |
| Coatings Division EMEAI | |
| Tower Works | |
| Kestor Street Bolton | |
| BL2 2AL | |
| United Kingdom | |
| +44 (0) 1204 521771 | |
| The Sherwin-Williams Comp | bany |
| Inver France SAS | |
| 2 Rue Jean Revaus - BP 80 | 088 - 79102 |
| Thouars CEDEX France | |
| Transe | |
| e-mail address of person responsible for this SDS | : hse.pm.emea@sherwin.com |
| 1.4 Emergency telephone n | umber |
| <u>National advisory body/Po</u> | <u>vison Center</u> |
| Telephone number | : 421 2 5477 4166 |
| <u>Supplier</u> | |
| Telephone number | : +(44)-870-8200 418 |
| Hours of operation | : Emergency contact available 24 hours a day |
| | |
| SECTION 2: Hazards id | entification |
| 2.1 Classification of the sub | ostance or mixture |
| Product definition | : Mixture |
| Classification according to | o Regulation (EC) No. 1272/2008 [CLP/GHS] |
| Flam. Liq. 2, H225 | |
| Skin Irrit. 2, H315 | |
| Eye Dam. 1, H318 Skin Sens. 1, H317 | |
| Repr. 2, H361d | |
| STOT SE 3, H336 | |
| STOT RE 2, H373 | |
| Asp. Tox. 1, H304 | |
| Date of issue/Date of revision | : 15, Apr, 2024 Date of previous issue : 17, Sep, 2023 Version : 10 |
| | |

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

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SECTION 2: Hazards identification

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

Hazard pictograms

| : Danger |
|---|
| Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause drowsiness or dizziness. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects. |
| |
| : Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapor. |
| : IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| : Not applicable. |
| : Not applicable. |
| Toluene Polyamidoamine Amines, polyethylenepoly-, triethylenetetramine fraction |
| : FOR INDUSTRIAL USE ONLY |
| nents |
| |
| This mixture does not contain any substances that are accessed to be a DPT or a |
| |

| | This mixture does not contain any substances that are assessed to be a PBT or a vPvB. |
|--|---|
| | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Other hazards which do not result in classification | : None known. |

SECTION 3: Composition/information on ingredients :

3.2 Mixture

| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Туре |
|---|---|-----------|--|---|---------|
| Toluene | REACH #: 01-2119471310-51 EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3 | ≥50 - ≤75 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | - | [1] [2] |
| 2-Propanol | REACH #: 01-2119457558-25 EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0 | ≥10 - ≤25 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 | - | [1] [2] |
| Polyamidoamine | REACH #: 01-2119972320-44 EC: 500-191-5 CAS: 68082-29-1 | ≥10 - <25 | Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | - | [1] |
| Amines, polyethylenepoly-, triethylenetetramine fraction | REACH #: 01-2119487919-13 EC: 292-588-2 CAS: 90640-67-8 Index: 612-065-00-8 | ≤3 | Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above. | ATE [Oral] = 500 mg/kg ATE [Dermal] = 1100 mg/kg | [1] |

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, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section. Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

| 4.1 Description of first aid m | easures |
|--------------------------------|---|
| 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 | Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention. |
| 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. |

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SECTION 4: First aid measures

| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. |
|----------------------------|---|
| | 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.

Contains polyethlyenepolyamines. May produce an allergic reaction.

4.3 Indication of any immediate medical attention and special treatment needed

| Notes to physician | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
|---------------------|--|
| 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, CO ₂ , powders, water spray or mist. | | |
| Unsuitable extinguishing media | : Do not use water jet. | | |
| 5.2 Special hazards arising f | from the substance or mixture | | |
| Hazards 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. | | |
| <i>6.4 Reference to other sections</i> | : | 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. | | |
| | -1 | | | |

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. |

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SECTION 7: Handling and storage

| 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 awa 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. Store in closed original container at temperatures between 5°C and 25°C. | | |
| 7.3 Specific end use(s) | | | |
| Recommendations | : Not available. | | |

| Recommendations | : Not available. |
|----------------------------|------------------|
| Industrial sector specific | : Not available. |
| solutions | |

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

| Product/ingredient name | Exposure limit values | | | | |
|-------------------------|---|--|--|--|--|
| Toluene | Government regulation SR c. 355/2006 (Slovakia, 9/2020). Absorbed through skin. TWA: 192 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. STEL: 384 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. | | | | |
| 2-Propanol | Government regulation SR c. 355/2006 (Slovakia, 9/2020). TWA: 500 mg/m ³ 8 hours. TWA: 200 ppm 8 hours. STEL: 1000 mg/m ³ 15 minutes. STEL: 400 ppm 15 minutes. | | | | |

Biological exposure indices

| Product/ingredient name | Exposure indices |
|--|---|
| toluene | Government regulation SR c. 355/2006 (Slovakia, 9/2020) BLV: 1010 μmol/mmol creatinine, hippuric acid [in urine]. Sampling time: at the end of exposure or work shift. BLV: 1.08 μmol/mmol creatinine, o-cresol [in urine]. Sampling time: at the end of exposure or work shift; long-term exposure: after several work shifts. BLV: 1600 mg/g creatinine, hippuric acid [in urine]. Sampling time: at the end of exposure or work shift. BLV: 1.03 mg/g creatinine, o-cresol [in urine]. Sampling time: at the end of exposure or work shift. BLV: 1.03 mg/g creatinine, o-cresol [in urine]. Sampling time: at the end of exposure or work shift; long-term exposure: after several work shifts. BLV: 13399 μmol/l, hippuric acid [in urine]. Sampling time: at the end of exposure or work shift. BLV: 14.3 μmol/l, o-cresol [in urine]. Sampling time: at the end of exposure or work shift; long-term exposure: after several work |
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SECTION 8: Exposure controls/personal protection

| - | |
|--------------------------------------|---|
| | shifts. BLV: 6517 nmol/l, toluene [in blood]. Sampling time: at the end of exposure or work shift. BLV: 2401 mg/l, hippuric acid [in urine]. Sampling time: at the end of exposure or work shift. BLV: 1.5 mg/l, o-cresol [in urine]. Sampling time: at the end of exposure or work shift; long-term exposure: after several work shifts. BLV: 600 μg/l, toluene [in blood]. Sampling time: at the end of exposure or work shift. |
| Recommended monitoring procedures | 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

| Product/ingredient name | Туре | Exposure | Value | Population | Effects |
|---|------|--------------------------|-----------------------|---|----------|
| Toluene | DNEL | Short term Inhalation | 226 mg/m ³ | General population [Human via the | Systemic |
| | DNEL | Short term Inhalation | 226 mg/m³ | environment] General population [Human via the environment] | Local |
| | DNEL | Long term Dermal | 226 mg/m³ | General population [Human via the environment] | Systemic |
| | DNEL | Long term Inhalation | 226 mg/kg bw/day | General population [Human via the environment] | Systemic |
| | DNEL | Long term Inhalation | 56.5 mg/m³ | General population [Human via the environment] | Systemic |
| | DNEL | Long term Oral | 8.13 mg/ kg bw/day | General population [Human via the environment] | Systemic |
| | DNEL | Long term Inhalation | 192 mg/m³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 192 mg/m³ | Workers | Local |
| | DNEL | Short term Inhalation | 384 mg/m³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 384 mg/m³ | Workers | Local |
| | DNEL | Long term Dermal | 384 mg/kg bw/day | Workers | Systemic |
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SECTION 8: Exposure controls/personal protection

| | DNEL | Long term | 56.5 mg/m ³ | General | Local |
|------------|------|------------------|------------------------|-------------------------|----------|
| | | Inhalation | | population | |
| | | | | [Consumers] | |
| 2-Propanol | DNEL | Long term Dermal | 888 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term | 500 mg/m ³ | Workers | Systemic |
| | | Inhalation | Ũ | | , |
| | DNEL | Long term Dermal | 319 mg/kg | General | Systemic |
| | | | bw/day | population | |
| | | | | [Consumers] | |
| | DNEL | Long term | 89 mg/m³ | General | Systemic |
| | | Inhalation | U U | population | |
| | | | | [Consumers] | |
| | DNEL | Long term Oral | 26 mg/kg | General | Systemic |
| | | 5 | bw/day | population | , |
| | | | | [Consumers] | |
| | | | | [• • • • • • • • • •] | |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-------------------------|-----------------------|-----------------|--------------------|
| Toluene | Fresh water sediment | 0.68 mg/l | Assessment Factors |
| | Marine water sediment | 0.68 mg/l | Assessment Factors |
| | Sewage Treatment | 13.61 mg/l | Assessment Factors |
| | Plant | - | |
| | Soil | 2.89 mg/kg | Assessment Factors |
| | Fresh water sediment | 16.39 mg/kg dwt | - |
| | Marine water sediment | 16.39 mg/kg dwt | - |
| 2-Propanol | Fresh water | 140.9 mg/l | - |
| | Marine water | 140.9 mg/l | - |
| | Sewage Treatment | 2251 mg/l | - |
| | Plant | J J | |
| | Sediment | 552 mg/kg dwt | - |
| | Soil | 28 mg/kg | - |
| | Secondary Poisoning | 160 mg/kg | - |

| 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. |
| | : Users are advised to consider national Occupational Exposure Limits or other equivalent values. |
| Individual protection measu | <u>ires</u> |
| 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 | |

SECTION 8: Exposure controls/personal protection

| | 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. |
| Pady protoction | |
| Body protection | Personnel should wear antistatic clothing made of natural fibers or of high- temperature-resistant synthetic fibers. |
| | |
| | : Personal protective equipment for the body should be selected based on the task |
| | being performed and the risks involved and should be approved by a specialist |
| | before handling this product. When there is a risk of ignition from static electricity, |
| | wear anti-static protective clothing. For the greatest protection from static |
| | discharges, clothing should include anti-static overalls, boots and gloves. Refer to |
| | European Standard EN 1149 for further information on material and design requirements and test methods. |
| Other skin protection | • |
| 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. |
| Despiratory, prato sticp | |
| Respiratory protection | : Application methods: Brush or roller. Approved/certified respirator with organic vapor cartridge. Filter type: |
| | A2 P2 (EN14387). |
| | Manual spraying. Use a properly fitted, air-purifying or air-fed respirator complying |
| | with an approved standard if a risk assessment indicates this is necessary. |
| | |
| Environmental exposure | : Do not allow to enter drains or watercourses. |
| 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.

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SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

| <u>Appearance</u> | |
|--|---|
| Physical state : | Liquid. |
| Color : | Colorless. |
| Odor : | Solvent. |
| Odor threshold : | Not Available (Not Tested). |
| рН : | Not relevant/applicable due to nature of the product. insoluble in water. |
| Melting point/freezing point : | Not relevant/applicable due to nature of the product. |
| Initial boiling point and : boiling range | 81°C |
| Flash point : | Closed cup: 13°C [Pensky-Martens Closed Cup] |
| Evaporation rate : | 2 (butyl acetate = 1) |
| Flammability : | Flammable liquid. |
| | LEL: 1% (Toluene) UEL: 12.7% (2-Propanol) |
| Vapor pressure : | 4.4 kPa (33 mm Hg) |
| Relative vapor density : | 2.07 [Air = 1] |
| Relative density : | 0.85 |
| Solubility(ies) : | |
| Media | Result |
| cold water | Not soluble |

Partition coefficient: n-octanol/ : Not relevant/applicable due to nature of the product. water

Auto-ignition temperature

| Auto-ignition temperature | : | | | | | |
|---------------------------|------------|---|-----------------------|--|--|--|
| Ingredient name | | °C | °F | Method | | |
| 2-Propanol Toluene | | 398 480 | 748.4 896 | | | |
| Decomposition temperature | : Not | relevant/applica | able due to nature o | of the product. | | |
| Viscosity | : Kine | ematic (40°C): < | <20.5 mm²/s | | | |
| Explosive properties | : Und | er normal cond | itions of storage ar | d use, hazardous reactions will not occu | | |
| Oxidizing properties | : Und | er normal cond | itions of storage an | d use, hazardous reactions will not occu | | |
| Particle characteristics | | | | | | |
| Median particle size | : Not | : Not relevant/applicable due to nature of the product. | | | | |
| 0.2 Other information | | | | | | |
| Heat of combustion | : 25.4 | 51 kJ/g | | | | |
| SECTION 10: Stability an | d reactiv | ity | | | | |
| 10.1 Reactivity | : No spec | ific test data re | lated to reactivity a | vailable for this product or its ingredients | | |
| 10.2 Chemical stability | : Stable u | Inder recomme | nded storage and h | andling conditions (see Section 7). | | |
| 10.3 Possibility of | : Under n | ormal condition | ns of storage and us | se, hazardous reactions will not occur. | | |

10.3 Possibility of hazardous reactions

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SECTION 10: Stability and reactivity

| 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. |
| 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 hazard classes as defined in Regulation (EC) No 1272/2008

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 polyethlyenepolyamines. May produce an allergic reaction.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------------------|---------|-------------|----------|
| Toluene | LC50 Inhalation Vapor | Rat | 49 g/m³ | 4 hours |
| | LD50 Oral | Rat | 636 mg/kg | - |
| 2-Propanol | LD50 Dermal | Rabbit | 12800 mg/kg | - |
| | LD50 Oral | Rat | 5000 mg/kg | - |

Acute toxicity estimates

| Route | ATE value | |
|--------|----------------|--|
| Oral | 44929.18 mg/kg | |
| Dermal | 98844.21 mg/kg | |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|------------------------------------|--------------------------|--------------------|-------------|--------------|-------------|
| Toluene | Eyes - Mild irritant | Rabbit | - | 0.5 minutes | - |
| | | | | 100 mg | |
| | Eyes - Mild irritant | Rabbit | - | 870 ug | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 2 | - |
| | | | | mg | |
| | Skin - Mild irritant | Pig | - | 24 hours 250 | - |
| | | 5 | | uL | |
| | Skin - Mild irritant | Rabbit | - | 435 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 | - |
| | | | | mg | |
| | Skin - Moderate irritant | Rabbit | - | 500 mg | - |
| Date of issue/Date of revision : 1 | 5, Apr, 2024 Date of p | revious issue : 17 | , Sep, 2023 | Version | :10 11/17 |
| | | | | SHW-A4-EU | J-CLP44-SK |

SECTION 11: Toxicological information

| | licelegical internation | | | | |
|------------|--------------------------|--------|---|--------------|---|
| 2-Propanol | Eyes - Moderate irritant | Rabbit | - | 10 mg | - |
| - | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 | - |
| | | | | mg | |
| | Eyes - Severe irritant | Rabbit | - | 100 mg | - |
| | Skin - Mild irritant | Rabbit | - | 500 mg | - |

Conclusion/Summary : Not available.

Sensitization

No data available

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)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|--------------------------|-------------------|--------------------------------------|
| | Category 3 Category 3 | - | Narcotic effects Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|---------------|
| Toluene | Category 2 | - | - |

Aspiration hazard

| Product/ingredient name | Result | |
|-------------------------|--------------------------------|--|
| Toluene | ASPIRATION HAZARD - Category 1 | |

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 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.

SECTION 12: Ecological information

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|--|--|----------------------|
| Toluene | Acute EC50 >433 ppm Marine water | Algae - Skeletonema costatum | 96 hours |
| | Acute EC50 11600 µg/l Fresh water | Crustaceans - <i>Gammarus</i> <i>pseudolimnaeus</i> - Adult | 48 hours |
| | Acute EC50 6000 μg/l Fresh water | Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| | Acute LC50 5500 μg/l Fresh water | Fish - Oncorhynchus kisutch - Fry | 96 hours |
| | Chronic NOEC 1 mg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| 2-Propanol | Acute EC50 7550 mg/l Fresh water | Daphnia - <i>Daphnia magna</i> - Neonate | 48 hours |
| | Acute LC50 1400000 µg/l Marine water Acute LC50 4200 mg/l Fresh water | Crustaceans - Crangon crangon Fish - Rasbora heteromorpha | 48 hours 96 hours |

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | | Dose | | Inoculum |
|-------------------------|-------------------|--------|------------|------|--------------------|------------|
| No data available | | | | | | |
| Conclusion/Summary | : Not available. | ł | | | | |
| Product/ingredient name | Aquatic half-life | | Photolysis | | Biodeg | radability |
| Toluene 2-Propanol | - | | - | | Readily Readily | |

12.3 Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|-------------------------|--------|-----|-----------|
| Toluene | - | 90 | Low |

| 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 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

SECTION 13: Disposal considerations

| Methods of disposal | : | 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 | | |
| Methods of disposal | : | 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* |
| 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

| | ADR/RID | IMDG | ΙΑΤΑ |
|---|---|--|------------------------|
| 14.1 UN number or ID number | UN1263 | UN1263 | UN1263 |
| 14.2 UN proper shipping name | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL |
| 14.3 Transport Hazard Class(es)/ Label(s) | 3 | 3 | 3 |
| 14.4 Packing group | 11 | II | 11 |
| 14.5 Environmental hazards | No. | No. | No. |
| Additional information | Special provisions 640 (C) Tunnel code D/E | Emergency schedules F-E, S-E | - |

SECTION 14: Transport information

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

14.7 Maritime transport in : Not applicable. bulk according to IMO instruments

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

| Product/ingredient name | | % | Designation [Usage] |
|--|------------------------------------|------------------|------------------------|
| MACROPOXY G280 Epoxy Blast Primer - Addi toluene | | ≥90 ≥50 - ≤75 | 3 48 |
| Labeling: Not applicable.Other EU regulationsVOC content(2010/75/EU):88.8w/w759g/l | | | · |
| Explosive precursors : Not applicable. Seveso Directive | | | |
| This product may add to the calculation for dete major accident hazards. National regulations | mining whether a site is within th | e scope of t | he Seveso Directive on |
| 5.2 Chemical Safety : No Chemical Sa | ety Assessment has been carrie | d out. | |

Assessment

SECTION 16: Other information

Indicates information that has changed from previously issued version. Abbreviations and : ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. acronyms 1272/20081 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

SECTION 16: Other information

| 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 |
| | Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by |
| | Commission Regulation (EU) 2020/878 |
| | Directive 2012/18/EU, and relative amendments & additions |
| | Directive 2008/98/EC, 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]

| Classi | fication | Justification |
|---|--|---|
| Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | | On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method |
| Full text of abbreviated H statements | H302HarmfuH304May beH312HarmfuH314CausesH315CausesH317May caH318CausesH319CausesH361dSuspeceH373May caExposuH411 | flammable liquid and vapor. Il if swallowed. a fatal if swallowed and enters airways. Il in contact with skin. a severe skin burns and eye damage. a skin irritation. use an allergic skin reaction. a serious eye damage. a serious eye irritation. use drowsiness or dizziness. cted of damaging the unborn child. use damage to organs through prolonged or repeated ire. o aquatic life with long lasting effects. Il to aquatic life with long lasting effects. |
| Full text of classifications [CLP/GHS] | : Acute Tox. 4 Aquatic Chronic 2 Aquatic Chronic 3 Asp. Tox. 1 Eye Dam. 1 Eye Irrit. 2 Flam. Liq. 2 Repr. 2 Skin Corr. 1B Skin Irrit. 2 Skin Sens. 1 STOT RE 2 STOT SE 3 | ACUTE TOXICITY - Category 4 AQUATIC HAZARD (LONG-TERM) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3 ASPIRATION HAZARD - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 TOXIC TO REPRODUCTION - Category 2 SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3 |
| Date of printing | : 15, Apr, 2024. | |
| Date of issue/ Date of revision | : 15, Apr, 2024 | |

| MACROPOXY G280 Epoxy Blast | EC) No. 1907/2006 (REACH), Annex II Primer - Additive |
|-------------------------------|---|
| G280A SECTION 16: Other in | formation |
| Date of previous issue | : 17, Sep, 2023 |
| | : If there is no previous validation date please contact your supplier for more |

information.

Notice to reader

In accordance with Regulation (EC) 1907/2006, REACH Regulation, Articles 31, 37, any required hazard-related information on the use of substances received as downstream user will be sent forward. Consequently, the safety data sheets for some products will contain a SUMI - Safe Use of Mixture Information - attached to the safety data sheet.

SUMI(s) will be added to the SDS for products if both the following conditions are met:

• The product is classified as hazardous for health

• The product contains one or more REACH-registered substances for which extended safety data sheets (exposure scenarios) have been provided

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.