# SAFETY DATA SHEET

Date of issue/Date of revision : 27 August 2024 Version : 16.03



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

1.1 Product identifier

Product name : SIGMACOVER 280 LT HARDENER

Product code : 00181453

Other means of identification

Not available.

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

**Product use** : Professional applications, Used by spraying.

Use of the substance/

mixture

: Coating.; Hardener.

**Uses advised against**: Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

Sigma Paint Saudi Arabia Ltd.

PO Box 7509 Dammam 31472 Saudi Arabia

Tel: 00966 138 47 31 00 Fax: 00966 138 47 17 34

e-mail address of person responsible for this SDS

: ndpic@sfda.gov.sa

1.4 Emergency telephone

number

: 00966 138473100 extn 1001

#### **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 Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 2, H411

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

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#### **SECTION 2: Hazards identification**

**Hazard pictograms** 











Signal word : Danger

**Hazard statements** : Flammable liquid and vapour.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction. May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

Toxic to aquatic life with long lasting effects.

**Precautionary statements** 

**Prevention** : Wear protective gloves, protective clothing and eye or face protection. Keep away from

heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid

release to the environment.

Response : Collect spillage.

**Storage** Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents and container in accordance with all local, regional, national and **Disposal** 

international regulations.

P280, P210, P273, P391, P403 + P233, P501

**Hazardous ingredients** : ethylbenzene

2-methylpropan-1-ol

xylene

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids

and triethylenetetramine

2,4,6-tris(dimethylaminomethyl)phenol

3,6-diazaoctanethylenediamin

Supplemental label

elements

: Not applicable.

**Annex XVII - Restrictions** on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant

: Not applicable.

fastenings

**Tactile warning of danger** : Not applicable.

2.3 Other hazards

**Product meets the criteria** for PBT or vPvB

: 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 : Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause

irritation.

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# **SECTION 3: Composition/information on ingredients**

3.2 Mixtures : Mixture

| 3.2 Mixtures  | : Mixture   |             |  |   |         |
|---|---|-------------|--|---|---------|
| Product/ingredient name   | Identifiers   | %           | Classification   | Specific Conc.<br>Limits, M-factors<br>and ATEs                         | Туре    |
| <b>e</b> thylbenzene  | REACH #:<br>01-2119489370-35<br>EC: 202-849-4<br>CAS: 100-41-4<br>Index: 601-023-00-4 | ≥10 - ≤25   | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>STOT RE 2, H373<br>(hearing organs)<br>Asp. Tox. 1, H304<br>Aquatic Chronic 3, H412  | ATE [Inhalation<br>(vapours)] = 17.8 mg/l                               | [1] [2] |
| 2-methylpropan-1-ol   | REACH #:<br>01-2119484609-23<br>EC: 201-148-0<br>CAS: 78-83-1<br>Index: 603-108-00-1  | ≥10 - <20   | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>STOT SE 3, H336  | -   | [1] [2] |
| xylene  | REACH #:<br>01-2119488216-32<br>EC: 215-535-7<br>CAS: 1330-20-7                       | ≥10 - ≤25   | Flam. Liq. 3, H226<br>Acute Tox. 4, H312<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H335<br>Asp. Tox. 1, H304<br>Aquatic Chronic 3, H412             | ATE [Dermal] = 1700<br>mg/kg<br>ATE [Inhalation<br>(vapours)] = 11 mg/l | [1] [2] |
| Fatty acids, C18-unsatd.,<br>dimers, oligomeric reaction<br>products with tall-oil fatty<br>acids and<br>triethylenetetramine | REACH #:<br>01-2119972320-44<br>EC: 500-191-5<br>CAS: 68082-29-1                      | ≥10 - ≤25   | Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Chronic 2, H411  | -   | [1]     |
| 2,4,6-tris<br>(dimethylaminomethyl)<br>phenol   | REACH #:<br>01-2119560597-27<br>EC: 202-013-9<br>CAS: 90-72-2                         | ≥1.0 - ≤5.0 | Acute Tox. 4, H302<br>Acute Tox. 4, H312<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318  | ATE [Oral] = 1200 mg/<br>kg<br>ATE [Dermal] = 1280<br>mg/kg             | [1]     |
| Formaldehyde, polymer with N,N-dimethyl-1,3-propanediamine and phenol   | CAS: 445498-00-0  | ≥1.0 - ≤5.0 | Acute Tox. 4, H302<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410   | ATE [Oral] = 500 mg/<br>kg<br>M [Acute] = 1<br>M [Chronic] = 1          | [1]     |
| 3,6-diazaoctanethylenediamin  | EC: 203-950-6<br>CAS: 112-24-3<br>Index: 612-059-00-5                                 | ≥1.0 - ≤4.2 | 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] = 1716 mg/kg<br>ATE [Dermal] = 1465<br>mg/kg                 | [1] [2] |

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.

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### **SECTION 3: Composition/information on ingredients**

Xylene: Several REACH registrations cover the REACH registered substance with xylene isomers, ethylbenzene (and toluene). The other REACH Registrations include: 01-2119555267-33 reaction mass of ethylbenzene and m-xylene and p-xylene, 01-2119486136-34 Aromatic hydrocarbons, C8, 01-2119539452-40 reaction mass of ethylbenzene and xylene.

Туре

[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.

SUB codes represent substances without registered CAS Numbers.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

**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 recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show the 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. 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.

#### 4.2 Most important symptoms and effects, both acute and delayed

#### Potential acute health effects

Eye contact : Causes serious eye damage.Inhalation : May cause respiratory irritation.

**Skin contact**: Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.

**Ingestion** : Corrosive to the digestive tract. Causes burns.

#### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:

pain watering redness

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness dryness cracking

blistering may occur

**Ingestion**: Adverse symptoms may include the following:

stomach pains

#### 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.

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#### **SECTION 4: First aid measures**

**Specific treatments** : No specific treatment.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media

: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing** 

media

: Do not use water jet.

#### 5.2 Special hazards arising from the substance or mixture

**Hazards from the** substance or mixture : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous combustion** products

: Decomposition products may include the following materials: carbon oxides nitrogen oxides

#### 5.3 Advice for firefighters

Special precautions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective** equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

#### **SECTION 6: Accidental release measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised 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 nonemergency personnel".

#### 6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

#### 6.3 Methods and material for containment and cleaning up

**Small spill** 

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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#### **SECTION 6: Accidental release measures**

#### Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

# 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

#### **Protective measures**

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

# Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

# 7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

#### 7.3 Specific end use(s)

See Section 1.2 for Identified uses.

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# **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  |
|-------------------------|--|
| <b>e</b> thylbenzene    | Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016).  STEL: 543 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours.  Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).  STEL: 125 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. STEL: 543 mg/m³ 15 minutes. TWA: 100 ppm 8 hours.  ACGIH TLV (United States, 7/2023). Ototoxicant. Notes: Substances for which there is a Biological Exposure Index or Indices 2002 Adoption. TWA: 20 ppm 8 hours.     |
| 2-methylpropan-1-ol     | Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016).  TWA: 152 mg/m³ 8 hours.  TWA: 50 ppm 8 hours.  Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006).  TWA: 152 mg/m³ 8 hours.  TWA: 50 ppm 8 hours.  ACGIH TLV (United States, 7/2023).  TWA: 152 mg/m³ 8 hours.  TWA: 50 ppm 8 hours.   |
| xylene                  | Abu Dhabi - OSHAD - Occupational air quality threshold limit values (United Arab Emirates, 7/2016). [xylene (o, m & p isomers)]  STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours.  Cabinet Decree (12) of 2006 Regarding Regulation Concerning Protection of Air from Pollution (United Arab Emirates, 5/2006). [xylene (all isomers)]  STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. STEL: 651 mg/m³ 15 minutes. TWA: 100 ppm 8 hours.  ACGIH TLV (United States, 7/2023). [p-xylene and mixtures containing p-xylene] Ototoxicant. TWA: 20 ppm 8 hours. |

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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.

#### 8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### **Individual protection measures**

**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
Skin protection
Hand protection

: Chemical splash goggles and face shield.

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. 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.

**Gloves** 

: nitrile neoprene

**Body protection** 

: 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 antistatic 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

: 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 Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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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

**Appearance** 

**Physical state** : Liquid.

Colour : Not available. Odour : Amine-like. **Odour threshold** Not available.

Melting point/freezing point : May start to solidify at the following temperature: 12°C (53.6°F) This is based on

data for the following ingredient: 3,6-diazaoctanethylenediamin. Weighted average:

-84.31°C (-119.8°F)

Initial boiling point and

boiling range

: >37.78°C

**Flammability** : Not available.

Upper/lower flammability or

explosive limits

: Greatest known range: Lower: 1.7% Upper: 10.9% (2-methylpropan-1-ol)

: Closed cup: 29°C Flash point **Auto-ignition temperature** : 335°C (635°F)

**Decomposition temperature** 

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

pН : Not applicable. insoluble in water. **Viscosity** Kinematic (40°C): >21 mm<sup>2</sup>/s

**Viscosity** 60 - 100 s (ISO 6mm)

Solubility(ies)

| Media      | Result      |
|------------|-------------|
| cold water | Not soluble |

Partition coefficient: n-octanol/ : Not applicable.

water

Vapour pressure

| Ingradient name   | Vapour Pressure at 20°C |      | Vapour pressure at 50°C |          |     |        |
|-------------------|-------------------------|------|-------------------------|----------|-----|--------|
| Ingredient name   | mm Hg                   | kPa  | Method                  | mm<br>Hg | kPa | Method |
| methylpropan-1-ol | <12.00102               | <1.6 | DIN EN<br>13016-2       |          |     |        |

Highest known value: 0.84 (ethylbenzene) Weighted average: 0.75compared with **Evaporation rate** 

butyl acetate

**Relative density** : 0.92

Vapour density : Highest known value: 5.04 (Air = 1) (3,6-diazaoctanethylenediamin). Weighted

average: 3.34 (Air = 1)

: The product itself is not explosive, but the formation of an explosible mixture of **Explosive properties** 

vapour or dust with air is possible.

**Oxidising properties** 

Particle characteristics

Product does not present an oxidizing hazard.

Median particle size : Not applicable.

#### 9.2 Other information

No additional information.

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### **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** : The product is stable.

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.

Refer to protective measures listed in sections 7 and 8.

**10.5** Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions:

oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products

: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides

### **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

#### **Acute toxicity**

| Product/ingredient name                    | Result                 | Species | Dose        | Exposure |
|--|------------------------|---------|-------------|----------|
| ethylbenzene                               | LC50 Inhalation Vapour | Rat     | 17.8 mg/l   | 4 hours  |
| •  | LD50 Dermal            | Rabbit  | 17.8 g/kg   | -        |
|  | LD50 Oral              | Rat     | 3.5 g/kg    | -        |
| 2-methylpropan-1-ol                        | LC50 Inhalation Vapour | Rat     | 24.6 mg/l   | 4 hours  |
| , · ·                                      | LD50 Dermal            | Rabbit  | 2460 mg/kg  | -        |
|  | LD50 Oral              | Rat     | 2830 mg/kg  | -        |
| xylene                                     | LD50 Dermal            | Rabbit  | 1.7 g/kg    | -        |
|  | LD50 Oral              | Rat     | 4.3 g/kg    | -        |
| Fatty acids, C18-unsatd., dimers,          | LD50 Dermal            | Rat     | >2000 mg/kg | -        |
| oligomeric reaction products with tall-oil |                        |         |             |          |
| fatty acids and triethylenetetramine       |                        |         |             |          |
| •  | LD50 Oral              | Rat     | >2000 mg/kg | -        |
| 2,4,6-tris(dimethylaminomethyl)phenol      | LD50 Dermal            | Rat     | 1280 mg/kg  | -        |
| ,    | LD50 Oral              | Rat     | 1200 mg/kg  | -        |
| 3,6-diazaoctanethylenediamin               | LD50 Dermal            | Rabbit  | 1465 mg/kg  | -        |
| -  | LD50 Oral              | Rat     | 1716 mg/kg  | -        |

Conclusion/Summary

: There are no data available on the mixture itself.

#### **Irritation/Corrosion**

| Product/ingredient name   | Result   | Species          | Score | Exposure             | Observation |
|---|--|------------------|-------|----------------------|-------------|
| kylene<br>Fatty acids, C18-unsatd., dimers,                                     | Skin - Moderate irritant<br>Eyes - Severe irritant | Rabbit<br>Rabbit | -     | 24 hours 500 mg<br>- | -           |
| oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | Skin - Irritant                                    | Human            | _     |                      |             |

#### **Conclusion/Summary**

Skin: There are no data available on the mixture itself.Eyes: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.

**Sensitisation** 

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### **SECTION 11: Toxicological information**

| Product/ingredient name   | Route of exposure | Species    | Result      |
|---|-------------------|------------|-------------|
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | skin              | Mouse      | Sensitising |
| 3,6-diazaoctanethylenediamin  | skin              | Guinea pig | Sensitising |

**Conclusion/Summary** 

Skin : There are no data available on the mixture itself.Respiratory : There are no data available on the mixture itself.

**Mutagenicity** 

**Conclusion/Summary** 

: There are no data available on the mixture itself.

Carcinogenicity

**Conclusion/Summary** 

: There are no data available on the mixture itself.

Reproductive toxicity

**Conclusion/Summary**: There are no data available on the mixture itself.

**Teratogenicity** 

**Conclusion/Summary**: There are no data available on the mixture itself.

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

| Product/ingredient name | Category                 | Route of exposure | Target organs                                 |
|-------------------------|--------------------------|-------------------|---|
|                         | Category 3<br>Category 3 | -                 | Respiratory tract irritation Narcotic effects |
|                         | Category 3               | -                 | Respiratory tract irritation                  |

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

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

#### **Aspiration hazard**

| Product/ingredient name | Result  |  |
|-------------------------|---|--|
| ethylbenzene<br>xylene  | ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 |  |

Information on likely routes of exposure

: Not available.

#### Potential acute health effects

Inhalation : May cause respiratory irritation.

**Ingestion**: Corrosive to the digestive tract. Causes burns.

**Skin contact**: Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.

**Eye contact** : Causes serious eye damage.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

**Ingestion** : Adverse symptoms may include the following:

stomach pains

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### SECTION 11: Toxicological information

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness dryness cracking

blistering may occur

**Eye contact** : Adverse symptoms may include the following:

pain watering redness

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Short term exposure** 

**Potential immediate** 

: Not available.

effects

Potential delayed effects: Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects: Not available.

#### Potential chronic health effects

Not available.

**Conclusion/Summary**: Not available.

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or

repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to

very low levels.

Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

Other information : Not available.

Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Exposure to amine vapor has been reported to cause transient corneal edema described as blue haze, halo effect, foggy or blurred vision for several hours. This condition is typically temporary and does not cause permanent visual effects. When the proper eye protection specified in Section 8 is worn, exposure is significantly reduced and the condition has not been observed.

#### 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

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## **SECTION 12: Ecological information**

| Product/ingredient name   | Result                                       | Species            | Exposure             |
|---|--|--------------------|----------------------|
| <b>e</b> thylbenzene  | Acute EC50 1.8 mg/l Fresh water              | Daphnia            | 48 hours             |
|   | Chronic NOEC 1 mg/l Fresh                    | Daphnia -          | -                    |
|   | water  | Ceriodaphnia dubia |                      |
| 2-methylpropan-1-ol   | Acute EC50 1100 mg/l                         | Daphnia            | 48 hours             |
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine | EC10 1.78 mg/l                               | Algae              | 72 hours             |
| 2,4,6-tris(dimethylaminomethyl)phenol   | Acute LC50 >100 mg/l<br>Acute LC50 >100 mg/l | Daphnia<br>Fish    | 48 hours<br>96 hours |

**Conclusion/Summary**: There are no data available on the mixture itself.

#### 12.2 Persistence and degradability

| Product/ingredient name     | Test  | Result  | Dose | Inoculum |
|-----------------------------|---|---|------|----------|
| (dimethylaminomethyl)phenol | OECD 301D<br>Ready<br>Biodegradability -<br>Closed Bottle | 79 % - Readily - 10 days<br>4 % - Not readily - 28 days | -    | -        |
|                             | Test  |   |      |          |

**Conclusion/Summary**: There are no data available on the mixture itself.

| Product/ingredient name  | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|------------------|
| <b>e</b> thylbenzene   | -                 | -          | Readily          |
| xylene   | -                 | -          | Readily          |
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and | -                 | -          | Not readily      |
| triethylenetetramine 2,4,6-tris(dimethylaminomethyl)phenol                                   | -                 | -          | Not readily      |

#### 12.3 Bioaccumulative potential

| Product/ingredient name               | LogP <sub>ow</sub> | BCF         | Potential |
|---------------------------------------|--------------------|-------------|-----------|
| <b>e</b> thylbenzene                  | 3.6                | 79.43       | Low       |
| 2-methylpropan-1-ol                   | 1                  | -           | Low       |
| xylene                                | 3.12               | 7.4 to 18.5 | Low       |
| 2,4,6-tris(dimethylaminomethyl)phenol | 0.219              | -           | Low       |
| 3,6-diazaoctanethylenediamin          | -1.66 to -1.4      | -           | Low       |

#### **12.4 Mobility in soil**

Soil/water partition : Not available.

coefficient (Koc)

**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.

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|---------|------|----------------------|-------|
|         |      |                      |       |

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# **SECTION 12: Ecological information**

#### 12.7 Other adverse effects

No known significant effects or critical hazards.

### **SECTION 13: Disposal considerations**

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).

#### 13.1 Waste treatment methods

#### **Product**

**Methods of disposal** 

: The generation of waste should be avoided or minimised 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 code | Waste designation   |
|------------|---|
| 08 01 11*  | waste paint and varnish containing organic solvents or other hazardous substances |

#### **Packaging**

**Methods of disposal** 

: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

| Type of packaging | European waste catalogue (EWC) |                 |
|-------------------|--------------------------------|-----------------|
| Container         | 15 01 06                       | mixed packaging |

#### **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. Vapour 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

|                                 | ADR/RID   | IMDG  | IATA   |
|---------------------------------|---|---|--|
| 14.1 UN number or ID number     | UN3469  | UN3469  | UN3469   |
| 14.2 UN proper shipping name    | PAINT RELATED MATERIAL,<br>FLAMMABLE, CORROSIVE | PAINT RELATED MATERIAL,<br>FLAMMABLE, CORROSIVE | PAINT RELATED MATERIAL,<br>FLAMMABLE, CORROSIVE                    |
| 14.3 Transport hazard class(es) | 3 (8)   | 3 (8)   | 3 (8)  |
| 14.4 Packing group              | III   | III   | III  |
| 14.5 Environmental hazards      | Yes.  | Yes.  | Yes. The environmentally hazardous substance mark is not required. |
| Marine pollutant substances     | Not applicable.                                 | (Polyamide)                                     | Not applicable.  |

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|--------------|----------------------|-------|
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### **SECTION 14: Transport information**

**Additional information** 

ADR/RID : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or

≤5 kg.

**Tunnel code** : (D/E)

**IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

**IATA** : The environmentally hazardous substance mark may appear if required by other transportation

regulations.

user

14.6 Special precautions for : 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 IMO

instruments

: Not applicable.

## 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 authorisation** 

**Annex XIV** 

None of the components are listed.

Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions** : Not applicable.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other national and international regulations. : Not applicable. **Explosive precursors** Ozone depleting substances (1005/2009/EU)

Not listed.

assessment

15.2 Chemical safety

: No Chemical Safety Assessment has been carried out.

#### **SECTION 16: Other information**

Indicates information that has changed from previously issued version.

**Abbreviations and** 

: ATE = Acute Toxicity Estimate

acronyms

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/2008] DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

Full text of abbreviated H

statements

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#### **SECTION 16: Other information**

| : | H225 | Highly flammable liquid and vapour.           |
|---|------|---|
|   | H226 | Flammable liquid and vapour.                  |
|   | H302 | Harmful if swallowed.                         |
|   | H304 | May be fatal if swallowed and enters airways. |
|   | H312 | Harmful in contact with skin.                 |
|   | H314 | Causes severe skin burns and eye damage.      |
|   | H315 | Causes skin irritation.                       |
|   | H317 | May cause an allergic skin reaction.          |
|   | H318 | Causes serious eye damage.                    |
|   | H319 | Causes serious eye irritation.                |
|   | H332 | Harmful if inhaled.                           |
|   | H335 | May cause respiratory irritation.             |
|   | H336 | May cause drowsiness or dizziness.            |
|   |      |   |

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

# Full text of classifications [CLP/GHS]

Acute Tox. 4
 Aquatic Acute 1
 Aquatic Chronic 1
 Aquatic Chronic 2
 Aquatic Chronic 3

ACUTE TOXICITY - Category 4
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

Asp. Tox. 1 ASPIRATION HAZARD - Category 1

Eye Dam. 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

Flam. Liq. 2 FLAMMABLE LIQUIDS - Category 2 Flam. Liq. 3 FLAMMABLE LIQUIDS - Category 3

Skin Corr. 1B SKIN CORROSION/IRRITATION - Category 1B Skin Corr. 1C SKIN CORROSION/IRRITATION - Category 1C Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2

Skin Sens. 1 SKIN SENSITISATION - Category 1
Skin Sens. 1A SKIN SENSITISATION - Category 1A

STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED

**EXPOSURE - Category 2** 

STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE

EXPOSURE - Category 3

#### **History**

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#### **Disclaimer**

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