

# SAFETY DATA SHEET



Date of issue/Date of revision : 7 December 2019 Version : 16.03

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

### 1.1 Product identifier

**Product name** : SIGMACOVER 256/435/456/522 HARDENER

**Product code** : 00141100

**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.

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

### 1.3 Details of the supplier of the safety data sheet

PPG Coatings SPRL/BVBA  
Tweemontstraat 104  
B-2100 Deurne  
Belgium  
Telephone +32-33606311  
Fax +32-33606435

**e-mail address of person  
responsible for this SDS** : PMC.Safety@PPG.com

### 1.4 Emergency telephone number

**Supplier**

+31 20 4075210

## 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 Dam. 1, H318

Skin Sens. 1, H317

STOT SE 3, H335

STOT SE 3, H336

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.

Code : 00141100

Date of issue/Date of revision

: 7 December 2019

SIGMACOVER 256/435/456/522 HARDENER

## SECTION 2: Hazards identification

### 2.2 Label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Flammable liquid and vapor.  
Causes serious eye damage.  
Causes skin irritation.  
May cause an allergic skin reaction.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
Harmful 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 breathing vapor.

Response

: IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

: Store in a well-ventilated place. Keep cool.

Disposal

: Not applicable.  
P280, P210, P261, P304 + P340, P303 + P361 + P353, P305 + P351 + P338, P403, P235

Hazardous ingredients

: 1-methylpropan-1-ol  
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines  
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 fastenings

: Not applicable.

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.

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures : Mixture

| Product/ingredient name   | Identifiers   | % by weight | Classification<br>Regulation (EC) No.<br>1272/2008 [CLP]  | Type    |
|---|---|-------------|---|---------|
| methylpropan-1-ol   | REACH #: 01-2119484609-23<br>EC: 201-148-0<br>CAS: 78-83-1<br>Index: 603-108-00-1   | ≥25 - ≤50   | 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 #: 01-2119488216-32<br>EC: 215-535-7<br>CAS: 1330-20-7<br>Index: 601-022-00-9 | ≥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 | [1] [2] |
| Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines | CAS: 68410-23-1   | ≥10 - <25   | Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Chronic 2, H411   | [1]     |
| ethylbenzene  | REACH #: 01-2119489370-35<br>EC: 202-849-4<br>CAS: 100-41-4<br>Index: 601-023-00-4  | ≥1.0 - ≤5.0 | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>STOT RE 2, H373<br>(hearing organs)<br>Asp. Tox. 1, H304  | [1] [2] |
| 2,4,6-tris(dimethylaminomethyl) phenol  | REACH #: 01-2119560597-27<br>EC: 202-013-9<br>CAS: 90-72-2<br>Index: 603-069-00-0   | ≥1.0 - ≤3.5 | Acute Tox. 4, H302<br>Acute Tox. 4, H312<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1B, H317  | [1]     |
| 3,6-diazaoctanethylenediamin  | EC: 203-950-6<br>CAS: 112-24-3<br>Index: 612-059-00-5                               | ≤1.4        | Acute Tox. 4, H312<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>Aquatic Chronic 3, H412                                      | [1] [2] |
|   |   |             | <b>See Section 16 for the full text of the H statements declared above.</b>   |         |

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.

Xylene: Several REACH registrations cover the REACH registered substance with xylene isomers, ethylbenzene (and toluene). The other REACH Registrations include: 01-211955267-33 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.

#### Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

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

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## SECTION 3: Composition/information on ingredients

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 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. 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** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : Corrosive to the digestive tract. Causes burns. Can cause central nervous system (CNS) depression.

#### 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  
 nausea or vomiting  
 headache  
 drowsiness/fatigue  
 dizziness/vertigo  
 unconsciousness
- 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.

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
SIGMACOVER 256/435/456/522 HARDENER

## 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 vapor. 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 harmful 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**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

: Avoid dispersal of spilled 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.

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

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## SECTION 6: Accidental release measures

- 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.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach 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 spilled 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). 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. 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 ingest. Avoid breathing vapor or mist. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. 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** : Storage temperature: 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 oxidizing 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## SECTION 7: Handling and storage

### 7.3 Specific end use(s)

See Section 1.2 for Identified uses.

## 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   |
|------------------------------|---|
| 2-methylpropan-1-ol          | <b>ACGIH TLV (United States, 3/2019).</b><br>TWA: 152 mg/m <sup>3</sup> 8 hours.  |
| xylene                       | TWA: 50 ppm 8 hours.<br><b>EU OEL (Europe, 2/2017). Absorbed through skin.</b><br>STEL: 442 mg/m <sup>3</sup> 15 minutes.<br>STEL: 100 ppm 15 minutes.<br>TWA: 221 mg/m <sup>3</sup> 8 hours. |
| ethylbenzene                 | TWA: 50 ppm 8 hours.<br><b>EU OEL (Europe, 2/2017). Absorbed through skin.</b><br>STEL: 884 mg/m <sup>3</sup> 15 minutes.<br>STEL: 200 ppm 15 minutes.<br>TWA: 442 mg/m <sup>3</sup> 8 hours. |
| 3,6-diazaoctanethylenediamin | TWA: 100 ppm 8 hours.<br><b>IPEL (PPG). Absorbed through skin.</b><br>TWA: 1 ppm  |

**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.

#### DNELs

| Product/ingredient name | Type | Exposure              | Value                  | Population         | Effects  |
|-------------------------|------|-----------------------|------------------------|--------------------|----------|
| 2-methylpropan-1-ol     | DNEL | Long term Inhalation  | 55 mg/m <sup>3</sup>   | General population | Local    |
| xylene                  | DNEL | Long term Inhalation  | 310 mg/m <sup>3</sup>  | Workers            | Local    |
|                         | DNEL | Short term Inhalation | 260 mg/m <sup>3</sup>  | General population | Systemic |
|                         | DNEL | Short term Inhalation | 260 mg/m <sup>3</sup>  | General population | Local    |
|                         | DNEL | Long term Dermal      | 125 mg/kg bw/day       | General population | Systemic |
|                         | DNEL | Long term Inhalation  | 65.3 mg/m <sup>3</sup> | General population | Systemic |
|                         | DNEL | Long term Oral        | 12.5 mg/kg bw/day      | General population | Systemic |
|                         | DNEL | Long term Inhalation  | 221 mg/m <sup>3</sup>  | Workers            | Systemic |



|  |   |
|--|---|
| <b>Code</b> : 00141100                     | <b>Date of issue/Date of revision</b> : 7 December 2019 |
| <b>SIGMACOVER 256/435/456/522 HARDENER</b> |   |

**SECTION 8: Exposure controls/personal protection**

|   |      |                       |                        |                    |          |
|---|------|-----------------------|------------------------|--------------------|----------|
| Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines | DNEL | Short term Inhalation | 442 mg/m <sup>3</sup>  | Workers            | Systemic |
|   | DNEL | Long term Inhalation  | 221 mg/m <sup>3</sup>  | Workers            | Local    |
|   | DNEL | Short term Inhalation | 442 mg/m <sup>3</sup>  | Workers            | Local    |
|   | DNEL | Long term Dermal      | 212 mg/kg bw/day       | Workers            | Systemic |
|   | DNEL | Long term Oral        | 0.56 mg/kg bw/day      | General population | Systemic |
| ethylbenzene  | DNEL | Long term Dermal      | 0.56 mg/kg bw/day      | General population | Systemic |
|   | DNEL | Long term Inhalation  | 0.97 mg/m <sup>3</sup> | General population | Systemic |
|   | DNEL | Long term Dermal      | 1.1 mg/kg bw/day       | Workers            | Systemic |
|   | DNEL | Long term Inhalation  | 3.9 mg/m <sup>3</sup>  | Workers            | Systemic |
|   | DNEL | Long term Oral        | 1.6 mg/kg bw/day       | General population | Systemic |
|   | DNEL | Long term Inhalation  | 15 mg/m <sup>3</sup>   | General population | Systemic |
|   | DNEL | Long term Inhalation  | 77 mg/m <sup>3</sup>   | Workers            | Systemic |
|   | DNEL | Long term Dermal      | 180 mg/kg bw/day       | Workers            | Systemic |
|   | DNEL | Short term Inhalation | 293 mg/m <sup>3</sup>  | Workers            | Local    |

**PNECs**

| Product/ingredient name | Type | Compartment Detail     | Value           | Method Detail            |
|-------------------------|------|------------------------|-----------------|--------------------------|
| xylene                  | -    | Fresh water            | 0.4 mg/l        | Assessment Factors       |
|                         | -    | Marine water           | 0.04 mg/l       | Assessment Factors       |
|                         | -    | Sewage Treatment Plant | 10 mg/l         | Assessment Factors       |
|                         | -    | Fresh water sediment   | 1.56 mg/kg dwt  | Equilibrium Partitioning |
|                         | -    | Marine water sediment  | 0.156 mg/kg dwt | -                        |
|                         | -    | Soil                   | 0.076 mg/kg dwt | Equilibrium Partitioning |
|                         | -    | Fresh water            | 0.327 mg/l      | -                        |
|                         | -    | Marine water           | 0.327 mg/l      | -                        |
|                         | -    | Sewage Treatment Plant | 6.58 mg/l       | -                        |
|                         | -    | Fresh water sediment   | 12.46 mg/kg dwt | -                        |
| ethylbenzene            | -    | Marine water sediment  | 12.46 mg/kg dwt | -                        |
|                         | -    | Soil                   | 2.31 mg/kg      | -                        |
|                         | -    | Fresh water            | 0.1 mg/l        | Assessment Factors       |
|                         | -    | Marine water           | 0.01 mg/l       | Assessment Factors       |
|                         | -    | Sewage Treatment Plant | 9.6 mg/l        | Assessment Factors       |
|                         | -    | Fresh water sediment   | 13.7 mg/kg dwt  | Equilibrium Partitioning |
|                         | -    | Marine water sediment  | 1.37 mg/kg dwt  | Equilibrium Partitioning |
|                         | -    | Soil                   | 2.68 mg/kg dwt  | Equilibrium Partitioning |
|                         | -    | Secondary Poisoning    | 20 mg/kg        | -                        |

**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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**



Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## 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** : Chemical splash goggles and face shield. Use eye protection according to EN 166.
- Skin protection**
- Hand protection** : 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** : butyl rubber
- 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 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** : 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** : 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. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapor (Type A) and particulate filter P3
- 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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Amine-like.
- Odor threshold** : Not available.
- pH** : insoluble in water.

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## SECTION 9: Physical and chemical properties

- 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: -84.56°C (-120.2°F)
- Initial boiling point and boiling range** : >37.78°C
- Flash point** : Closed cup: 25°C
- Evaporation rate** : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.71 compared with butyl acetate
- Flammability (solid, gas)** : liquid
- Upper/lower flammability or explosive limits** : Greatest known range: Lower: 1.7% Upper: 10.9% (2-methylpropan-1-ol)
- Vapor pressure** : Highest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropan-1-ol). Weighted average: 0.8 kPa (6 mm Hg) (at 20°C)
- Vapor density** : Highest known value: 5.04 (Air = 1) (3,6-diazaoctanethylenediamin). Weighted average: 3.17 (Air = 1)
- Relative density** : 0.95
- Solubility(ies)** : Insoluble in the following materials: cold water.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Auto-ignition temperature** : 430°C
- Decomposition temperature** : Stable under recommended storage and handling conditions (see Section 7).
- Viscosity** : Kinematic (room temperature): >4 cm<sup>2</sup>/s  
Kinematic (40°C): >0.21 cm<sup>2</sup>/s
- Viscosity** : 60 - 100 s (ISO 6mm)
- Explosive properties** : The product itself is not explosive, but the formation of an explosible mixture of vapor or dust with air is possible.
- Oxidizing properties** : Product does not present an oxidizing hazard.

### 9.2 Other information

No additional information.

## 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: oxidizing agents, strong alkalis, strong acids.
- 10.6 Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

| Product/ingredient name               | Result                | Species | Dose       | Exposure |
|---------------------------------------|-----------------------|---------|------------|----------|
| 2-methylpropan-1-ol                   | LC50 Inhalation Vapor | 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   | -        |
| ethylbenzene                          | LC50 Inhalation Vapor | Rat     | 17.8 mg/l  | 4 hours  |
|                                       | LD50 Dermal           | Rabbit  | 17.8 g/kg  | -        |
|                                       | LD50 Oral             | Rat     | 3.5 g/kg   | -        |
| 2,4,6-tris(dimethylaminomethyl)phenol | LD50 Dermal           | Rabbit  | 1.28 g/kg  | -        |
|                                       | LD50 Dermal           | Rat     | 1280 mg/kg | -        |
|                                       | LD50 Oral             | Rat     | 1200 mg/kg | -        |
| 3,6-diazaoctanethylenediamin          | LD50 Dermal           | Rabbit  | 805 mg/kg  | -        |
|                                       | LD50 Oral             | Rat     | 2500 mg/kg | -        |

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

#### Acute toxicity estimates

| Route               | ATE value     |
|---------------------|---------------|
| Oral                | 48000 mg/kg   |
| Dermal              | 4214.81 mg/kg |
| Inhalation (vapors) | 43.22 mg/l    |

#### Irritation/Corrosion

| Product/ingredient name               | Result                   | Species | Score | Exposure        | Observation |
|---------------------------------------|--------------------------|---------|-------|-----------------|-------------|
| xylene                                | Skin - Moderate irritant | Rabbit  | -     | 24 hours 500 mg | -           |
| 2,4,6-tris(dimethylaminomethyl)phenol | Skin - Visible necrosis  | Rabbit  | -     | 4 hours         | 7 days      |

#### 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.

#### Sensitization

| Product/ingredient name   | Route of exposure | Species    | Result      |
|---|-------------------|------------|-------------|
| Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines | skin              | Mouse      | Sensitizing |
| 2,4,6-tris(dimethylaminomethyl)phenol   | skin              | Guinea pig | Sensitizing |
| 3,6-diazaoctanethylenediamin  | skin              | Guinea pig | Sensitizing |

#### 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

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## SECTION 11: Toxicological information

**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                |
|-------------------------|------------|-------------------|------------------------------|
| 2-methylpropan-1-ol     | Category 3 | Not applicable.   | Narcotic effects             |
| xylene                  | Category 3 | Not applicable.   | Respiratory tract irritation |
|                         | Category 3 | Not applicable.   | Respiratory tract irritation |

### Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category   | Route of exposure | Target organs  |
|-------------------------|------------|-------------------|----------------|
| ethylbenzene            | Category 2 | Not determined    | hearing organs |

### Aspiration hazard

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

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Ingestion** : Corrosive to the digestive tract. Causes burns. Can cause central nervous system (CNS) depression.
- Skin contact** : Causes skin irritation. 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  
 nausea or vomiting  
 headache  
 drowsiness/fatigue  
 dizziness/vertigo  
 unconsciousness
- Ingestion** : Adverse symptoms may include the following:  
 stomach pains
- 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 and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## SECTION 11: Toxicological information

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**Conclusion/Summary** : Not available.

**General** : 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.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Other information** : Not available.

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. 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 Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines, 2,4,6-tris(dimethylaminomethyl)phenol, 3,6-diazaoctanethylenediamin. May produce an allergic reaction.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name  | Result                                    | Species | Exposure |
|--|---|---------|----------|
| 2-methylpropan-1-ol<br>Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines<br>ethylbenzene | Acute EC50 1100 mg/l                      | Daphnia | 48 hours |
|  | EC50 4.11 mg/l Fresh water                | Algae   | 72 hours |
| 2,4,6-tris(dimethylaminomethyl)phenol  | Acute LC50 150 to 200 mg/l<br>Fresh water | Fish    | 96 hours |
|  | Acute LC50 175 mg/l                       | Fish    | 96 hours |

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

### 12.2 Persistence and degradability

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## SECTION 12: Ecological information

| Product/ingredient name   | Test | Result         | Dose | Inoculum |
|---|------|----------------|------|----------|
| Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines | -    | 15 % - 28 days | -    | -        |

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

| Product/ingredient name   | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------|
| xylene  | -                 | -          | Readily          |
| Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines | -                 | -          | Not readily      |
| ethylbenzene  | -                 | -          | Readily          |

### 12.3 Bioaccumulative potential

| Product/ingredient name      | LogP <sub>ow</sub> | BCF         | Potential |
|------------------------------|--------------------|-------------|-----------|
| 2-methylpropan-1-ol          | 0.76               | -           | low       |
| xylene                       | 3.16               | 7.4 to 18.5 | low       |
| ethylbenzene                 | 3.15               | 79.43       | low       |
| 3,6-diazaoctanethylenediamin | -1.66 to -1.4      | -           | low       |

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : 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.

## 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 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 code | Waste designation   |
|------------|---|
| 08 01 11*  | waste paint and varnish containing organic solvents or other hazardous substances |

#### Packaging

Code : 00141100 Date of issue/Date of revision : 7 December 2019  
 SIGMACOVER 256/435/456/522 HARDENER

## SECTION 13: Disposal considerations

**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.

| 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. 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.

## 14. Transport information

|  | ADR/RID                | ADN                    | IMDG                   | IATA                   |
|--|------------------------|------------------------|------------------------|------------------------|
| <b>14.1 UN number</b>                  | UN1263                 | UN1263                 | UN1263                 | UN1263                 |
| <b>14.2 UN proper shipping name</b>    | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL |
| <b>14.3 Transport hazard class(es)</b> | 3                      | 3                      | 3                      | 3                      |
| <b>14.4 Packing group</b>              | III                    | III                    | III                    | III                    |
| <b>14.5 Environmental hazards</b>      | No.                    | Yes.                   | No.                    | No.                    |
| <b>Marine pollutant substances</b>     | Not applicable.        | Not applicable.        | Not applicable.        | Not applicable.        |

### Additional information

**ADR/RID** : This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.2.3.1.5.1.

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

**ADN** : The product is only regulated as an environmentally hazardous substance when transported in tank vessels. This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.2.3.1.5.1.

**IMDG** : This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.

**IATA** : None identified.

**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.



|                                     |  |
|-------------------------------------|--|
| Code : 00141100                     | Date of issue/Date of revision : 7 December 2019 |
| SIGMACOVER 256/435/456/522 HARDENER |  |

## 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.

###### Substances of very high concern

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.

##### Ozone depleting substances (1005/2009/EU)

Not listed.

##### Seveso Directive

This product is controlled under the Seveso Directive.

##### Danger criteria

|                 |
|-----------------|
| <b>Category</b> |
| P5c             |

**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]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- PBT = Persistent, Bioaccumulative and Toxic
- vPvB = Very Persistent and Very Bioaccumulative
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
- IMDG = International Maritime Dangerous Goods
- IATA = International Air Transport Association

### **Full text of abbreviated H statements**

|      |   |
|------|---|
| H225 | Highly flammable liquid and vapor.            |
| H226 | Flammable liquid and vapor.                   |
| 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.                    |

|  |   |
|--|---|
| <b>Code</b> : 00141100                     | <b>Date of issue/Date of revision</b> : 7 December 2019 |
| <b>SIGMACOVER 256/435/456/522 HARDENER</b> |   |

**SECTION 16: Other information**

|      |  |
|------|--|
| 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. |
| 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, H302      | ACUTE TOXICITY (oral) - Category 4   |
| 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   |
| Eye Dam. 1, H318        | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  |
| 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 Corr. 1B, H314     | SKIN CORROSION/IRRITATION - Category 1B  |
| Skin Corr. 1C, H314     | SKIN CORROSION/IRRITATION - Category 1C  |
| Skin Irrit. 2, H315     | SKIN CORROSION/IRRITATION - Category 2   |
| Skin Sens. 1, H317      | SKIN SENSITIZATION - Category 1  |
| Skin Sens. 1A, H317     | SKIN SENSITIZATION - Category 1A   |
| Skin Sens. 1B, H317     | SKIN SENSITIZATION - Category 1B   |
| 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 |
| STOT SE 3, H336         | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3             |

**History**

|  |                   |
|--|-------------------|
| <b>Date of issue/ Date of revision</b> | : 7 December 2019 |
| <b>Date of previous issue</b>          | : 5 October 2019  |
| <b>Prepared by</b>                     | : EHS             |
| <b>Version</b>                         | : 16.03           |

**Disclaimer**

*The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by us, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.*