

Safety Data Sheet according to GB/T 16483-2008 and GB/T 17519-2013 - China

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

#### 1.1 Product identifier

Product name : Hempel's Curing Agent 97371

Product identity : 9737100000

Product type : Curing agent

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

Field of application : metal industry, ships and shipyards.

Ready-for-use mixture : (see base component)

Identified uses : Industrial applications, Used by spraying.

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

Company details : **Hempel North Asia Holding Co. Ltd.**  
Crystal Plaza, Tower 7, 10F,  
Room 1005-1008, No.6 Lane 100,  
Pingjiaqiao Road, Pudong,  
Shanghai 200126, China.  
Tel: +86 21 3588 6788  
Fax: +86 21 5298 1088  
hempel@hempel.com

#### 1.4 Emergency telephone number

+86 400-6267-911

Manufacturer :

**HEMPEL (KUNSHAN) COATINGS LTD.**  
No.1 Haihong Road, Zhangpu, Kunshan, Jiangsu, China  
Postal Code: 215321  
Tel: +86 512 57440886 Fax: +86 512 57440389  
**HEMPEL (YANTAI) COATINGS LTD.**  
No.80 Chongqing Street, Economic & Tech.  
Development Zone, Yantai, Shandong, China  
Postal Code: 264006  
Tel: 86 535 6936699 Fax: +86 535 6936688  
**HEMPEL (GUANGZHOU) COATINGS LTD.**  
Canghai Si Road No.3, Yonghe District, Guangzhou  
Economic Technology Development  
District, Guangdong, China  
Postal Code: 511356  
Tel: +86 20 32812888 Fax: +86 20 32226478

Date of issue : 17 November 2021

Date of previous issue : No previous validation.

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Product definition : Mixture

Physical state : Liquid.

Color : Transparent

Odor : Solvent-like

#### Emergency overview

Flammable liquid and vapor. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging the unborn child. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life.

#### GHS Classification

FLAMMABLE LIQUIDS - Category 3

SKIN CORROSION/IRRITATION - Category 1B

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SKIN SENSITIZATION - Category 1

CARCINOGENICITY - Category 2

TOXIC TO REPRODUCTION - Category 2

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

AQUATIC HAZARD (ACUTE) - Category 2

See Section 11 for more detailed information on health effects and symptoms.

### SECTION 2: Hazards identification

#### 2.2 Label elements

Hazard pictograms :



Signal word :

Danger

Hazard statements :

H226 - Flammable liquid and vapor.  
H314 - Causes severe skin burns and eye damage.  
H317 - May cause an allergic skin reaction.  
H318 - Causes serious eye damage.  
H351 - Suspected of causing cancer.  
H361 - Suspected of damaging fertility or the unborn child.  
H373 - May cause damage to organs through prolonged or repeated exposure.  
H401 - Toxic to aquatic life.

Precautionary statements :

Prevention :

Obtain special instructions before use. 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. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid release to the environment. Do not breathe vapor, mist or spray.

Response :

IF exposed or concerned: Get medical advice or attention. IF INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage :

Store in a well-ventilated place. Keep cool.

Disposal :

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

Hazardous ingredients :

xylene  
3-aminopropyldiethylamine  
2-methylpropan-1-ol  
ethylbenzene  
m-Xylylene-diamine

#### Physical and chemical hazards

Flammable liquid and vapor.

#### Health hazards

Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging the unborn child. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

#### Environmental hazards

Toxic to aquatic life.

#### 2.3 Other hazards

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

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

| Product/Ingredient name   | Identifiers | %         | GHS Classification  |
|---------------------------|-------------|-----------|---|
| xylene                    | 1330-20-7   | ≥10 - ≤25 | FLAMMABLE LIQUIDS - Category 3<br>SKIN CORROSION/IRRITATION - Category 2<br>AQUATIC HAZARD (ACUTE) - Category 2   |
| 3-aminopropyldiethylamine | 104-78-9    | ≥10 - ≤25 | FLAMMABLE LIQUIDS - Category 3<br>SKIN CORROSION/IRRITATION - Category 1B<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1<br>SKIN SENSITIZATION - Category 1 |
| benzyl alcohol            | 100-51-6    | ≥10 - ≤17 | ACUTE TOXICITY (oral) - Category 4<br>ACUTE TOXICITY (inhalation) - Category 4<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A                              |
| 2-methylpropan-1-ol       | 78-83-1     | ≥5 - ≤10  | FLAMMABLE LIQUIDS - Category 3  |

### SECTION 3: Composition/information on ingredients

|  |           |         |  |
|--|-----------|---------|--|
| ethylbenzene                                 | 100-41-4  | ≥3 - ≤5 | SKIN CORROSION/IRRITATION - Category 2<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3<br>FLAMMABLE LIQUIDS - Category 2<br>CARCINOGENICITY - Category 2<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 |
| m-Xylylene-diamine                           | 1477-55-0 | ≥3 - ≤5 | ASPIRATION HAZARD - Category 1<br>AQUATIC HAZARD (ACUTE) - Category 2<br>ACUTE TOXICITY (oral) - Category 4<br>ACUTE TOXICITY (inhalation) - Category 4<br>SKIN CORROSION/IRRITATION - Category 1B<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1<br>SKIN SENSITIZATION - Category 1B  |
| 3-(2-aminoethylamino) propyltrimethoxysilane | 1760-24-3 | ≥3 - ≤5 | AQUATIC HAZARD (LONG-TERM) - Category 3<br>ACUTE TOXICITY (inhalation) - Category 4<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1<br>SKIN SENSITIZATION - Category 1  |
| salicylic acid                               | 69-72-7   | ≤1.5    | ACUTE TOXICITY (oral) - Category 4<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1<br>TOXIC TO REPRODUCTION - Category 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 and hence require reporting in this section.

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

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

|                              |  |
|------------------------------|--|
| General :                    | In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.  |
| Eye contact :                | Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. 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. Give nothing by mouth. If unconscious, place in recovery position and get medical attention immediately.  |
| 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. In case of burns flush with water until the pain ceases. While flushing remove clothing from the affected area unless it is burnt into the skin. If hospital treatment is necessary flushing must continue during transfer and until the hospital staff takes over the treatment. |
| Ingestion :                  | If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat.   |
| 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. May cause an allergic skin reaction. |
| Ingestion :    | No known significant effects or critical hazards.         |

##### Over-exposure signs/symptoms

|               |   |
|---------------|---|
| Eye contact : | Adverse symptoms may include the following:<br>pain<br>watering<br>redness              |
| Inhalation :  | Adverse symptoms may include the following:<br>respiratory tract irritation<br>coughing |

### SECTION 4: First aid measures

|                |  |
|----------------|--|
| Skin contact : | Adverse symptoms may include the following:<br>pain or irritation<br>redness<br>blistering may occur |
| Ingestion :    | Adverse symptoms may include the following:<br>stomach pains   |

#### 4.3 Indication of any immediate medical attention and special treatment needed

|                       |  |
|-----------------------|--|
| Notes to physician :  | If gasses have been inhaled, from the decomposition of the product, symptoms may be delayed. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments : | No specific treatment.   |

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

|                       |   |
|-----------------------|---|
| Extinguishing media : | Recommended: alcohol resistant foam, CO <sub>2</sub> , powders, water spray.<br>Not to be used: waterjet. |
|-----------------------|---|

#### 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. |
| Hazardous combustion products :         | Decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides  |

#### 5.3 Advice for firefighters

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. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses. 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

Avoid all direct contact with the spilled material. Exclude sources of ignition and be aware of explosion hazard. Ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

#### 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.

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

Stop leak if without risk. Move containers from spill area. 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 (see Section 13). Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilled product.

#### Prevention of secondary hazards:

Keep unnecessary and unprotected personnel from entering. Shut off all ignition sources. No flares, smoking or flames in hazard area. Put on appropriate personal protective equipment.

#### 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

### 7.1 Precautions for safe handling

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. No sparking tools should be used.

Avoid inhalation of vapour, dust and spray mist. Avoid contact with skin and eyes. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Appropriate personal protective equipment: see Section 8. Always keep in containers made from the same material as the original one.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep out of the reach of children. Keep away from: Oxidizing agents, strong alkalis, strong acids. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use(s)

See separate Product Data Sheet for recommendations or industrial sector specific solutions.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

| Product/ingredient name | Exposure limit values   |
|-------------------------|---|
| xylene                  | <b>GBZ 2.1 (China, 8/2019).</b><br>PC-TWA: 50 mg/m <sup>3</sup> 8 hours.<br>PC-STEL: 100 mg/m <sup>3</sup> 15 minutes.  |
| 2-methylpropan-1-ol     | <b>ACGIH TLV (United States, 1/2021).</b><br>TWA: 152 mg/m <sup>3</sup> 8 hours.<br>TWA: 50 ppm 8 hours.                |
| ethylbenzene            | <b>GBZ 2.1 (China, 8/2019).</b><br>PC-STEL: 150 mg/m <sup>3</sup> 15 minutes.<br>PC-TWA: 100 mg/m <sup>3</sup> 8 hours. |
| m-Xylylene-diamine      | <b>ACGIH TLV (United States, 1/2021). Absorbed through skin.</b><br>C: 0.018 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.

### 8.2 Exposure controls

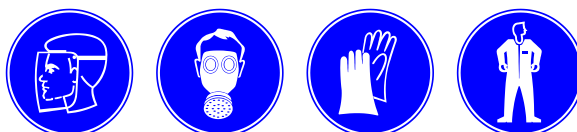
#### Appropriate engineering controls

Arrange sufficient ventilation by local exhaust ventilation and good general ventilation to keep the airborne concentrations of vapors or dust lowest possible and below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

#### Individual protection measures

General :

Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. Safety eyewear should be used when there is a likelihood of exposure.



Hygiene measures :

Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

### SECTION 8: Exposure controls/personal protection

|                          |  |
|--------------------------|--|
| Eye/face protection :    | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.   |
| Hand protection :        | <p>Wear chemical-resistant gloves (tested to EN374) in combination with 'basic' employee training. The quality of the chemical-resistant protective gloves must be chosen as a function of the specific workplace concentrations and quantity of hazardous substances.</p> <p>Since the actual work situation is unknown. Supplier of gloves should be contacted in order to find the appropriate type. Below listed glove(s) should be regarded as generic advice:</p> <p>Recommended: Silver Shield / Barrier / 4H gloves, Viton®</p> <p>May be used: polyvinyl alcohol (PVA), nitrile rubber, neoprene rubber, butyl rubber</p> <p>Short term exposure: natural rubber (latex), polyvinyl chloride (PVC)</p>  |
| Body protection :        | <p>Personal protective equipment for the body should be selected based on the task being performed and the risks involved handling this product.</p> <p>Wear suitable protective clothing. Always wear protective clothing when spraying.</p> <p>Chemical-resistant apron.</p>   |
| Respiratory protection : | Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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 working areas have insufficient ventilation: When the product is applied by means that will not generate an aerosol such as, brush or roller wear half or totally covering mask equipped with gas filter of type A, when grinding use particle filter of type P. When the product is applied by spraying and for continuous or prolonged work always wear an air-fed respirator e.g. hood with supply of fresh or compressed air or a full face, powered air purifying filter. Be sure to use an approved/certified respirator or equivalent. |

### 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

|  |  |
|--|--|
| Physical state :                               | Liquid.  |
| Color :  | Transparent  |
| Odor :   | Solvent-like   |
| pH :   | Testing not relevant or not possible due to nature of the product.   |
| Melting point/freezing point :                 | Testing not relevant or not possible due to nature of the product.   |
| Boiling point/boiling range :                  | Testing not relevant or not possible due to nature of the product.   |
| Flash point :                                  | Closed cup: 25°C (77°F)  |
| Evaporation rate :                             | Testing not relevant or not possible due to nature of the product.   |
| Flammability :                                 | Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.  |
| Lower and upper explosive (flammable) limits : | 0.6 - 13 vol %   |
| Vapor pressure :                               | Testing not relevant or not possible due to nature of the product.   |
| Vapor density :                                | Testing not relevant or not possible due to nature of the product.   |
| Specific gravity :                             | 0.948 g/cm³  |
| Solubility(ies) :                              | Partially soluble in the following materials: cold water and hot water.  |
| Partition coefficient (LogKow) :               | Testing not relevant or not possible due to nature of the product.   |
| Auto-ignition temperature :                    | Lowest known value: 415°C (779°F) (2-methylpropan-1-ol).   |
| Decomposition temperature :                    | Testing not relevant or not possible due to nature of the product.   |
| Viscosity :                                    | Testing not relevant or not possible due to nature of the product.   |
| Explosive properties :                         | <p>Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and oxidizing materials.</p> <p>Slightly explosive in the presence of the following materials or conditions: reducing materials.</p> |
| Oxidizing properties :                         | Testing not relevant or not possible due to nature of the product.   |



### SECTION 9: Physical and chemical properties

#### 9.2 Other information

|                           |                              |
|---------------------------|------------------------------|
| Solvent(s) % by weight :  | Weighted average: 63 %       |
| Water % by weight :       | Weighted average: 0 %        |
| VOC content :             | 504.8 g/l                    |
| VOC content - Hong Kong : | 504.9 g/l                    |
| TOC Content :             | Weighted average: 306 g/l    |
| Solvent Gas :             | Weighted average: 0.136 m³/l |

### 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

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

#### 10.5 Incompatible materials

Highly reactive or incompatible with the following materials: oxidizing materials.

Reactive or incompatible with the following materials: reducing materials.

Slightly reactive or incompatible with the following materials: organic materials.

#### 10.6 Hazardous decomposition products

When exposed to high temperatures (i.e. in case of fire) harmful decomposition products may be formed:

Decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Exposure to component solvent vapor concentrations 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. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation 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. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.

Inhalation of a corrosive substance may result in health effects such as stinging, coughing and in extreme cases, dyspnoea or loss of consciousness with a risk of lung damage, possibly lung oedema. Cauterization of skin and mucous membrane. If splashed in the eyes, the liquid may cause irreversible damage. Accidental swallowing may cause stinging and cauterization to mouth, oesophagus and stomach. Symptoms and signs include bloody vomiting, chock and loss of consciousness.

#### Acute toxicity

| Product/ingredient name   | Result                          | Species | Dose        | Exposure |
|---------------------------|---------------------------------|---------|-------------|----------|
| xylene                    | LC50 Inhalation Gas.            | Rat     | 5000 ppm    | 4 hours  |
|                           | LC50 Inhalation Vapor           | Rat     | 6350 ppm    | 4 hours  |
|                           | LD50 Dermal                     | Rabbit  | >4200 mg/kg | -        |
| 3-aminopropyldiethylamine | LD50 Oral                       | Rat     | 3523 mg/kg  | -        |
|                           | LD50 Dermal                     | Rabbit  | 525 mg/kg   | -        |
|                           | LD50 Oral                       | Rat     | 830 mg/kg   | -        |
| benzyl alcohol            | LC50 Inhalation Dusts and mists | Rat     | >4178 mg/m³ | 4 hours  |
|                           | LD50 Oral                       | Rat     | 1230 mg/kg  | -        |
| 2-methylpropan-1-ol       | LC50 Inhalation Vapor           | Rat     | 19200 mg/m³ | 4 hours  |
|                           | LD50 Dermal                     | Rabbit  | 3400 mg/kg  | -        |
|                           | LD50 Oral                       | Rat     | 2460 mg/kg  | -        |
| ethylbenzene              | LD50 Dermal                     | Rabbit  | >5000 mg/kg | -        |
|                           | LD50 Oral                       | Rat     | 3500 mg/kg  | -        |
| m-Xylylene-diamine        | LC50 Inhalation Dusts and mists | Rat     | 1.34 mg/l   | 4 hours  |

### SECTION 11: Toxicological information

|   |                                 |        |                  |         |
|---|---------------------------------|--------|------------------|---------|
| 3-(2-aminoethylamino)<br>propyltrimethoxysilane | LD50 Dermal                     | Rabbit | >3100 mg/kg      | -       |
|   | LD50 Oral                       | Rat    | 930 mg/kg        | -       |
|   | LC50 Inhalation Dusts and mists | Rat    | 1.49 - 2.44 mg/l | 4 hours |
| salicylic acid                                  | LD50 Dermal                     | Rabbit | 560 mg/kg        | -       |
|   | LD50 Dermal                     | Rat    | >2000 mg/kg      | -       |
|   | LD50 Oral                       | Rat    | 866 mg/kg        | -       |
|   | LD50 Oral                       | Rat    | 2413 mg/kg       | -       |
|   | LC50 Inhalation Dusts and mists | Rat    | >0.9 mg/l        | 1 hours |
|   | LD50 Dermal                     | Rat    | >2000 mg/kg      | -       |
|   | LD50 Oral                       | Rat    | 891 mg/kg        | -       |

#### Acute toxicity estimates

| Route               | ATE value    |
|---------------------|--------------|
| Oral                | 3121.9 mg/kg |
| Dermal              | 2119.3 mg/kg |
| Inhalation (gases)  | 23409.06 ppm |
| Inhalation (vapors) | 47.68 mg/l   |

#### Irritation/Corrosion

| Product/ingredient name                         | Result                        | Species | Score | Exposure                |
|---|-------------------------------|---------|-------|-------------------------|
| xylene  | Eyes - Severe irritant        | Rabbit  | -     | 24 hours 5 milligrams   |
|   | Skin - Moderate irritant      | Rabbit  | -     | 24 hours 500 milligrams |
|   | Skin - Irritant               | Rabbit  | -     | -                       |
| 3-aminopropyldiethylamine                       | Skin - Severe irritant        | Rabbit  | -     | -                       |
|   | Eyes - Severe irritant        | Rabbit  | -     | -                       |
| benzyl alcohol                                  | Eyes - Visible necrosis       | Rabbit  | -     | -                       |
|   | Skin - Mild irritant          | Rabbit  | -     | -                       |
| 2-methylpropan-1-ol                             | Eyes - Irritant               | Rabbit  | -     | -                       |
|   | Skin - Irritant               | Rabbit  | -     | -                       |
| ethylbenzene                                    | Skin - Mild irritant          | Rabbit  | -     | 24 hours 15 milligrams  |
|   | Respiratory - Mild irritant   | Rabbit  | -     | -                       |
| m-Xylylene-diamine                              | Eyes - Mild irritant          | Rabbit  | -     | -                       |
|   | Eyes - Severe irritant        | Rabbit  | -     | 24 hours 50 Micrograms  |
|   | Skin - Severe irritant        | Rabbit  | -     | 24 hours 750 Micrograms |
| 3-(2-aminoethylamino)<br>propyltrimethoxysilane | Respiratory - Severe irritant | Rabbit  | -     | -                       |
|   | Skin - Mild irritant          | Rabbit  | -     | -                       |
| salicylic acid                                  | Eyes - Severe irritant        | Rabbit  | -     | -                       |
|   | Eyes - Severe irritant        | Rabbit  | -     | -                       |

#### Sensitizer

| Product/ingredient name                         | Route of exposure | Species    | Result      |
|---|-------------------|------------|-------------|
| 3-(2-aminoethylamino)<br>propyltrimethoxysilane | skin              | Guinea pig | Sensitizing |
|   | skin              | Mouse      | Sensitizing |

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

| Product/ingredient name   | Category   | Route of exposure | Target organs                |
|---------------------------|------------|-------------------|------------------------------|
| 3-aminopropyldiethylamine | Category 3 |                   | Respiratory tract irritation |
| 2-methylpropan-1-ol       | Category 3 |                   | Respiratory tract irritation |
|                           | Category 3 |                   | Narcotic effects             |

#### 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            | ASPIRATION HAZARD - Category 1 |

#### Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

#### Potential chronic health effects

Sensitization : Contains 3-aminopropyldiethylamine, m-Xylylene-diamine, 3-(2-aminoethylamino) propyltrimethoxysilane. May produce an allergic reaction.



### SECTION 11: Toxicological information

Other information : No additional known significant effects or critical hazards.

### SECTION 12: Ecological information

#### 12.1 Toxicity

Do not allow to enter drains or watercourses.

| Product/ingredient name                     | Result  | Species   | Exposure  |
|---|---|---|---|
| benzyl alcohol                              | Acute EC50 230 mg/l<br>Acute IC50 770 mg/l<br>Acute LC50 460 mg/l                           | Daphnia<br>Algae<br>Fish                            | 48 hours<br>72 hours<br>96 hours                |
| 2-methylpropan-1-ol                         | Chronic NOEC 4000 µg/l Fresh water  | Daphnia - Daphnia magna                             | 21 days   |
| ethylbenzene                                | Chronic NOEC <1000 µg/l Fresh water   | Algae - Pseudokirchneriella subcapitata             | 96 hours  |
| m-Xylylene-diamine                          | Acute EC50 20.3 mg/l<br>Acute EC50 15.2 mg/l<br>Acute LC50 87.6 mg/l<br>Acute NOEC 4.7 mg/l | Algae<br>Daphnia - Daphnia<br>Fish - Leuciscus idus | 72 hours<br>48 hours<br>96 hours                |
| 3-(2-aminoethylamino)propyltrimethoxysilane | Acute NOEC 4.7 mg/l<br>Acute EC50 126 mg/l<br><br>Acute EC50 81 mg/l<br>Acute LC50 597 mg/l | Daphnia<br>Algae<br><br>Daphnia<br>Fish             | 21 days<br>72 hours<br><br>48 hours<br>96 hours |

#### 12.2 Persistence and degradability

| Product/ingredient name                     | Test | Result   | Dose | Inoculum |
|---|------|--|------|----------|
| xylene                                      | -    | 90 - 98 % - Readily - 28 days<br>>60 % - Readily - 28 days     | -    | -        |
| 3-aminopropyl-diethylamine                  | -    | 90 % - Readily - 28 days                                       | -    | -        |
| benzyl alcohol                              | -    | 95 - 97 % - Readily - 21 days<br>92 - 96 % - Readily - 14 days | -    | -        |
| ethylbenzene                                | -    | >70 % - Readily - 28 days                                      | -    | -        |
| m-Xylylene-diamine                          | -    | 49 % - Inherent - 28 days                                      | -    | -        |
| 3-(2-aminoethylamino)propyltrimethoxysilane | -    | 39 % - Not readily - 28 days                                   | -    | -        |
| salicylic acid                              | -    | 100 % - Readily - 14 days                                      | -    | -        |

| Product/ingredient name                     | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------|
| xylene                                      | -                 | -          | Readily          |
| 3-aminopropyl-diethylamine                  | -                 | -          | Readily          |
| benzyl alcohol                              | -                 | -          | Readily          |
| ethylbenzene                                | -                 | -          | Readily          |
| m-Xylylene-diamine                          | -                 | -          | Inherent         |
| 3-(2-aminoethylamino)propyltrimethoxysilane | -                 | -          | Not readily      |
| salicylic acid                              | -                 | -          | Readily          |

#### 12.3 Bioaccumulative potential

| Product/ingredient name                     | LogP <sub>ow</sub> | BCF        | Potential |
|---|--------------------|------------|-----------|
| xylene                                      | 3.12               | 8.1 - 25.9 | low       |
| 3-aminopropyl-diethylamine                  | 0.3                | 6.3        | low       |
| benzyl alcohol                              | 0.87               | 1.37       | low       |
| 2-methylpropan-1-ol                         | 1                  | -          | low       |
| ethylbenzene                                | 3.6                | -          | low       |
| m-Xylylene-diamine                          | 0.18               | 2.69       | low       |
| 3-(2-aminoethylamino)propyltrimethoxysilane | -0.77              | -          | low       |
| salicylic acid                              | 2.21 - 2.26        | -          | low       |

#### 12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : No known data available in our database.

Mobility : No known data available in our database.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods







The generation of waste should be avoided or minimized wherever possible. Residues of the product is listed as hazardous waste. Dispose of according to all state and local applicable regulations. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Spillage, remains, discarded clothes and similar should be discarded in a fireproof container.

#### Packaging

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.

### SECTION 14: Transport information

Transport may take place according to national regulation or ADR for transport by road, RID for transport by train, IMDG for transport by sea, IATA for transport by air.

|                   | 14.1<br>UN no. | 14.2<br>Proper shipping name  | 14.3<br>Transport hazard class(es)  | 14.4<br>PG* | 14.5<br>Env* | Additional information              |
|-------------------|----------------|---|---|-------------|--------------|-------------------------------------|
| <b>UN Class</b>   | UN2733         | AMINES, FLAMMABLE, CORROSIVE, N.O.S.<br>(3-aminopropyldiethylamine, xylene) | 3<br>8<br>      | III         | No.          | -                                   |
| <b>IMDG Class</b> | UN2733         | AMINES, FLAMMABLE, CORROSIVE, N.O.S.<br>(3-aminopropyldiethylamine, xylene) | 3<br>8<br>      | III         | No.          | <u>Emergency schedules</u> F-E, S-C |
| <b>IATA Class</b> | UN2733         | AMINES, FLAMMABLE, CORROSIVE, N.O.S.<br>(3-aminopropyldiethylamine, xylene) | 3<br>8<br>  | III         | No.          | -                                   |

PG\* : Packing group

Env.\* : Environmental hazards

#### 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 IMO instruments

Not applicable.

### SECTION 15: Regulatory information

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

##### List of Goods banned for Importing

None of the components are listed.

##### Inventory of Hazardous Chemicals

xylene  
3-aminopropyldiethylamine  
2-methylpropan-1-ol  
ethylbenzene

##### List of Goods banned for Exporting

None of the components are listed.

##### List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

##### Inventory of Highly Toxic Articles

None of the components are listed.

##### Catalogue of Hazardous Chemicals of Priority Management

methanol  
phenol

### SECTION 16: Other information

Abbreviations and acronyms :

ATE = Acute Toxicity Estimate  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
DNEL = Derived No Effect Level  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
IMDG = International Maritime Dangerous Goods  
IATA = International Air Transport Association  
CAS = Chemical Abstracts Service  
LC50 = Median lethal concentration  
EC50 = Half maximal effective concentration  
LD50 = Median lethal dose

#### GHS Classification

| Classification  | Justification   |
|---|---|
| FLAMMABLE LIQUIDS - Category 3<br>SKIN CORROSION/IRRITATION - Category 1B<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1<br>SKIN SENSITIZATION - Category 1<br>CARCINOGENICITY - Category 2<br>TOXIC TO REPRODUCTION - Category 2<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2<br>AQUATIC HAZARD (ACUTE) - Category 2 | On basis of test data<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method |

#### Notice to reader

▀ Indicates information that has changed from previously issued version.

The information contained in this safety data sheet is based on the present state of knowledge and EU and national legislation. It provides guidance on health, safety and environmental aspects for handling the product in a safe way and should not be construed as any guarantee of the technical performance or suitability for particular applications.

It is always the duty of the user/employer to ascertain that the work is planned and carried out in accordance with the national regulations.