

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758 - United Kingdom (UK)

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

#### 1.1 Product identifier

Product name : Hempel's Curing Agent 98000  
Product identity : 9800000000, 0013885E  
Product type : curing agent

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

Field of application : used only as part of two- or multi component products  
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 UK Ltd  
Berwyn House, The Pavilions  
Llantarnam Park  
Cwmbran  
South Wales NP44 3FD  
Telephone: 01633 833600  
hempel@hempel.com

#### 1.4 Emergency telephone number

Emergency telephone number (with hours of operation)

UK: **01633 833600** (08.00 - 17.00)  
Ireland: **01 809 2166** (National Poisons Information Centre,  
Monday-Sunday; 08:00-22:00)

See Section 4 of the safety data sheet (first aid measures).

Date of issue : 17 January 2024  
Date of previous issue : 22 December 2022.

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Product definition : Mixture

##### Classification according to UK CLP/GHS

|                         |                                    |
|-------------------------|------------------------------------|
| Flam. Liq. 3, H226      | FLAMMABLE LIQUIDS                  |
| Skin Irrit. 2, H315     | SKIN CORROSION/IRRITATION          |
| Eye Dam. 1, H318        | SERIOUS EYE DAMAGE/EYE IRRITATION  |
| Skin Sens. 1, H317      | SKIN SENSITISATION                 |
| Repr. 1B, H360F         | REPRODUCTIVE TOXICITY              |
| Aquatic Chronic 2, H411 | LONG-TERM (CHRONIC) AQUATIC HAZARD |

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

#### 2.2 Label elements

Hazard pictograms :



Signal word : **Danger**

Hazard statements :  
H226 - Flammable liquid and vapour.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H318 - Causes serious eye damage.  
H360F - May damage fertility.  
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention : Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment.

Response : Collect spillage. IF exposed or concerned: 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.

Hazardous ingredients : polymers with 3-[(2-aminoethyl)amino]propyl Ph silsesquioxanes, methoxy-terminated 3-(2-aminoethylamino)propyltrimethoxysilane dimethyl dimethoxy silane

### SECTION 2: Hazards identification

Supplemental label elements :  Restricted to professional users.

#### Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.


#### 2.3 Other hazards

This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.

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

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

| Product/ingredient name   | Identifiers   | %         | GB CLP Classification   | Type           |
|---|---|-----------|---|----------------|
|  polymers with 3-[(2-aminoethyl) amino]propyl Ph silsesquioxanes, methoxy-terminated | CAS: 477725-72-7  | ≥50 - ≤75 | Skin Irrit. 2, H315<br>Eye Dam. 1, H318   | [1]            |
| 3-(2-aminoethylamino) propyltrimethoxysilane  | EC: 217-164-6<br>CAS: 1760-24-3   | ≤5        | Eye Dam. 1, H318<br>Skin Sens. 1B, H317<br>STOT SE 3, H335  | [1]            |
| xylene  | REACH #: 01-2119488216-32<br>EC: 215-535-7<br>CAS: 1330-20-7<br>Index: 601-022-00-9 | ≤5        | Flam. Liq. 3, H226<br>Acute Tox. 4, H312<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315   | [1] [2]        |
| ethylbenzene  | REACH #: 01-2119489370-35<br>EC: 202-849-4<br>CAS: 100-41-4<br>Index: 601-023-00-4  | ≤3        | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>STOT RE 2, H373 (hearing organs)<br>Asp. Tox. 1, H304   | [1] [2]        |
| dimethyl dimethoxy silane   | REACH #: 01-2119976290-35<br>EC: 214-189-4<br>CAS: 1112-39-6                        | ≤1        | Flam. Liq. 2, H225<br>Repr. 1B, H360F   | [1]            |
| methanol  | REACH #: 01-2119433307-44<br>EC: 200-659-6<br>CAS: 67-56-1<br>Index: 603-001-00-X   | ≤1        | Flam. Liq. 2, H225<br>Acute Tox. 3, H301<br>Acute Tox. 3, H311<br>Acute Tox. 3, H331<br>STOT SE 1, H370 (central nervous system (CNS), eyes) (oral) | [1] [2]        |
| toluene   | REACH #: 01-2119471310-51<br>EC: 203-625-9<br>CAS: 108-88-3<br>Index: 601-021-00-3  | <1        | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>Repr. 2, H361d<br>STOT SE 3, H336<br>STOT RE 2, H373<br>Asp. Tox. 1, H304                              | [1] [2]        |
| octamethylcyclotetrasiloxane  | REACH #: 01-2119529238-36<br>EC: 209-136-7<br>CAS: 556-67-2<br>Index: 014-018-00-1  | ≤1        | Repr. 2, H361f<br>Aquatic Chronic 1, H410 (M=10)  | [1] [3]<br>[4] |

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.

#### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit, see section 8.

[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

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 112 and give immediate treatment (first aid).

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/advice.

### SECTION 4: First aid measures

|                              |   |
|------------------------------|---|
| Inhalation :                 | Remove to fresh air and keep at rest in a position comfortable for breathing. Give nothing by mouth. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. 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 recognised 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 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 :   | No known significant effects or critical hazards.            |
| Skin contact : | Causes skin irritation. 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>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations  |
| Skin contact : | Adverse symptoms may include the following:<br>pain or irritation<br>redness<br>blistering may occur<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations |
| Ingestion :    | Adverse symptoms may include the following:<br>stomach pains<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations   |

### 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 vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous combustion products :         | Decomposition products may include the following materials: carbon oxides nitrogen oxides metal oxide/oxides   |

## SECTION 5: Firefighting measures

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

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

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilt product.

### 6.4 Reference to other sections

See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 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


### SECTION 8: Exposure controls/personal protection

| Product/ingredient name  | Exposure limit values  |
|--|--|
| <div>                      xylene                 </div><br>ethylbenzene | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-,p- or mixed isomers] Absorbed through skin.</b><br>STEL: 441 mg/m <sup>3</sup> 15 minutes.<br>TWA: 50 ppm 8 hours.<br>TWA: 220 mg/m <sup>3</sup> 8 hours.<br>STEL: 100 ppm 15 minutes. |
| methanol   | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b><br>STEL: 552 mg/m <sup>3</sup> 15 minutes.<br>STEL: 125 ppm 15 minutes.<br>TWA: 441 mg/m <sup>3</sup> 8 hours.<br>TWA: 100 ppm 8 hours.                                    |
| toluene  | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b><br>STEL: 333 mg/m <sup>3</sup> 15 minutes.<br>STEL: 250 ppm 15 minutes.<br>TWA: 266 mg/m <sup>3</sup> 8 hours.<br>TWA: 200 ppm 8 hours.                                    |
|  | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b><br>STEL: 384 mg/m <sup>3</sup> 15 minutes.<br>TWA: 191 mg/m <sup>3</sup> 8 hours.<br>TWA: 50 ppm 8 hours.<br>STEL: 100 ppm 15 minutes.                                     |


#### 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.

#### Derived effect levels

| Product/ingredient name   | Type | Exposure             | Value                  | Population | Effects  |
|---|------|----------------------|------------------------|------------|----------|
| <div>                      (2-aminoethylamino)propyltrimethoxysilane                 </div><br>xylene | DNEL | Long term Inhalation | 35.5 mg/m <sup>3</sup> | Workers    | Systemic |
|   | DNEL | Long term Dermal     | 5 mg/kg bw/day         | Workers    | Systemic |
| ethylbenzene  | DNEL | Long term Inhalation | 77 mg/m <sup>3</sup>   | Workers    | Systemic |
|   | DNEL | Long term Dermal     | 212 mg/kg bw/day       | Workers    | Systemic |
|   | DNEL | Long term Dermal     | 180 mg/kg bw/day       | Workers    | Systemic |
| dimethyl dimethoxy silane   | DNEL | Long term Inhalation | 77 mg/m <sup>3</sup>   | Workers    | Systemic |
| methanol  | DNEL | Long term Inhalation | 7.44 mg/kg bw/day      | Workers    | Systemic |
|   | DNEL | Long term Inhalation | 260 mg/m <sup>3</sup>  | Workers    | Systemic |
| toluene   | DNEL | Long term Dermal     | 40 mg/kg bw/day        | Workers    | Systemic |
|   | DNEL | Long term Dermal     | 384 mg/kg bw/day       | Workers    | Systemic |
|   | DNEL | Long term Inhalation | 192 mg/m <sup>3</sup>  | Workers    | Systemic |
| octamethylcyclotetrasiloxane  | DNEL | Long term Inhalation | 73 mg/m <sup>3</sup>   | Workers    | Systemic |

#### Predicted effect concentrations

| Product/ingredient name   | Compartment Detail     | Value            | Method Detail |
|---|------------------------|------------------|---------------|
| <div>                      (2-aminoethylamino)propyltrimethoxysilane                 </div><br>xylene | Fresh water            | 0.062 mg/l       | -             |
|   | Marine water           | 0.0062 mg/l      | -             |
|   | Sewage Treatment Plant | 25 mg/l          | -             |
|   | Fresh water sediment   | 0.22 mg/kg dwt   | -             |
|   | Marine water sediment  | 0.022 mg/kg dwt  | -             |
|   | Soil                   | 0.0085 mg/kg dwt | -             |
| ethylbenzene  | Fresh water            | 0.327 mg/l       | -             |
|   | Marine water           | 0.327 mg/l       | -             |
|   | Fresh water sediment   | 12.46 mg/kg      | -             |
|   | Marine water sediment  | 12.46 mg/kg      | -             |
|   | Soil                   | 2.31 mg/kg       | -             |
|   | Sewage Treatment Plant | 6.68 mg/l        | -             |
| dimethyl dimethoxy silane   | Fresh water            | 0.1 mg/l         | -             |
|   | Marine water           | 0.01 mg/l        | -             |
|   | Sewage Treatment Plant | 9.6 mg/l         | -             |
|   | Fresh water sediment   | 13.7 mg/kg       | -             |
|   | Soil                   | 2.68 mg/kg       | -             |
|   | Fresh water            | 0.24 mg/l        | -             |
|   | Marine water           | 0.024 mg/l       | -             |
|   | Fresh water sediment   | 0.22 mg/kg       | -             |

### SECTION 8: Exposure controls/personal protection

|                              |                        |                  |   |
|------------------------------|------------------------|------------------|---|
| methanol                     | Marine water sediment  | 0.022 mg/kg      | - |
|                              | Soil                   | 0.053 mg/kg      | - |
|                              | Sewage Treatment Plant | 10 mg/l          | - |
|                              | Fresh water            | 0.062 mg/l       | - |
|                              | Marine water           | 0.0062 mg/l      | - |
|                              | Fresh water sediment   | 0.22 mg/kg dwt   | - |
| toluene                      | Marine water sediment  | 0.022 mg/kg dwt  | - |
|                              | Soil                   | 0.0085 mg/kg dwt | - |
|                              | Sewage Treatment Plant | 25 mg/l          | - |
|                              | Fresh water            | 0.68 mg/l        | - |
|                              | Marine water           | 0.68 mg/l        | - |
|                              | Sewage Treatment Plant | 13.61 mg/l       | - |
| octamethylcyclotetrasiloxane | Fresh water sediment   | 16.39 mg/kg      | - |
|                              | Marine water sediment  | 16.39 mg/kg      | - |
|                              | Soil                   | 2.89 mg/kg       | - |
|                              | Fresh water            | 1.5 µg/l         | - |
|                              | Fresh water            | 0.15 µg/l        | - |
|                              | Sewage Treatment Plant | 10 mg/l          | - |
|                              | Fresh water sediment   | 3 mg/kg dwt      | - |
|                              | Marine water sediment  | 0.3 mg/kg dwt    | - |
|                              | Soil                   | 0.54 mg/kg dwt   | - |

#### 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.   |
| 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, polyvinyl alcohol (PVA), Viton®<br/> May be used: nitrile rubber<br/> Short term exposure: neoprene rubber, butyl rubber, 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>   |
| Respiratory protection : | <p>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. Wear appropriate respirator when ventilation is inadequate. Be sure to use approved/certified respirator or equivalent. It is not possible to specify precise filter type, since the actual work situation is unknown. Supplier of respirators should be contacted in order to find the appropriate filter.</p>  |

##### 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.   |
| Colour :                                       | Transparent   |
| Odour :  | Non-characteristic.   |
| 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: 38°C (100.4°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 - 12 vol %  |
| Vapour pressure :                              | 1.3 kPa This is based on data for the following ingredient: methoxy functional phenyl/methyl siloxane                         |
| Vapour density :                               | Testing not relevant or not possible due to nature of the product.  |
| Specific gravity :                             | 1.12 g/cm <sup>3</sup>  |
| Partition coefficient (LogKow) :               | Testing not relevant or not possible due to nature of the product.  |
| Auto-ignition temperature :                    | Lowest known value: 432°C (809.6°F) (xylene).   |
| Decomposition temperature :                    | Testing not relevant or not possible due to nature of the product.  |
| Viscosity :                                    | Aspiration hazard (H304) Not classified. Testing not relevant due to nature of the product.                                   |
| Explosive properties :                         | Testing not relevant or not possible due to nature of the product.  |
| Oxidising properties :                         | Testing not relevant or not possible due to nature of the product.  |

#### 9.2 Other information

|                          |   |
|--------------------------|---|
| Solvent(s) % by weight : | Weighted average: 9 %                     |
| Water % by weight :      | Weighted average: 0 %                     |
| VOC content :            | 109.6 g/l                                 |
| TOC Content :            | Weighted average: 87 g/l                  |
| Solvent Gas :            | Weighted average: 0.027 m <sup>3</sup> /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 pressurise, 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: oxidising materials.  
Reactive or incompatible with the following materials: reducing 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 hazard classes as defined in Regulation (EC) No 1272/2008

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.

Direct contact with the eyes can cause irreversible damage, including blindness.

#### Acute toxicity

| Product/ingredient name                    | Result                          | Species | Dose             | Exposure |
|--|---------------------------------|---------|------------------|----------|
| (2-aminoethylamino) propyltrimethoxysilane | LC50 Inhalation Dusts and mists | Rat     | 1.49 - 2.44 mg/l | 4 hours  |
|  | LD50 Dermal                     | Rabbit  | 560 mg/kg        | -        |
|  | LD50 Dermal                     | Rat     | >2000 mg/kg      | -        |
|  | LD50 Oral                       | Rat     | 866 mg/kg        | -        |
| xylene                                     | LD50 Oral                       | Rat     | 2413 mg/kg       | -        |
|  | LC50 Inhalation Gas.            | Rat     | 5000 ppm         | 4 hours  |
|  | LC50 Inhalation Vapour          | Rat     | 6350 ppm         | 4 hours  |
|  | LD50 Dermal                     | Rabbit  | >4200 mg/kg      | -        |
| ethylbenzene                               | LD50 Oral                       | Rat     | 3523 mg/kg       | -        |
|  | LD50 Dermal                     | Rabbit  | >5000 mg/kg      | -        |
| dimethyl dimethoxy silane                  | LD50 Oral                       | Rat     | 3500 mg/kg       | -        |
|  | LD50 Oral                       | Rat     | >2000 mg/kg      | -        |
| methanol                                   | LC50 Inhalation Gas.            | Rat     | 64000 ppm        | 4 hours  |
|  | LC50 Inhalation Gas.            | Rat     | 64000 ppm        | 8 hours  |
|  | LD50 Dermal                     | Rabbit  | 15800 mg/kg      | -        |
|  | LD50 Dermal                     | Rat     | 300 mg/kg        | -        |
| toluene                                    | LD50 Oral                       | Rat     | 5600 mg/kg       | -        |
|  | LC50 Inhalation Vapour          | Rat     | >20 mg/l         | 4 hours  |
|  | LD50 Oral                       | Rat     | 636 mg/kg        | -        |
|  | LC50 Inhalation Dusts and mists | Rat     | 36 mg/l          | 4 hours  |
| octamethylcyclotetrasiloxane               | LD50 Dermal                     | Rat     | >2400 mg/kg      | -        |
|  | LD50 Oral                       | Rat     | >4800 mg/kg      | -        |

#### Acute toxicity estimates

| Product/ingredient name      | Oral mg/kg | Dermal mg/kg | Inhalation (gases) ppm | Inhalation (vapours) mg/l | Inhalation (dusts and mists) mg/l |
|------------------------------|------------|--------------|------------------------|---------------------------|-----------------------------------|
| Hempel's Curing Agent 98000  | 18196.3    | 17198.3      | 66781.3                | 228.7                     |                                   |
| xylene                       | 3523       | 1100         | 5000                   |                           |                                   |
| ethylbenzene                 | 3500       |              | 4500                   | 11                        |                                   |
| methanol                     | 100        | 300          | 64000                  | 3                         |                                   |
| octamethylcyclotetrasiloxane |            |              |                        |                           | 36                                |

#### Irritation/Corrosion

| Product/ingredient name   | Result                      | Species | Score | Exposure                   |
|---|-----------------------------|---------|-------|----------------------------|
| Polymers with 3-[(2-aminoethyl) amino]propyl Ph silsesquioxanes, methoxy-terminated | Eyes - Severe irritant      | Rabbit  | -     | -                          |
|   | Skin - Irritant             | Rabbit  | -     | -                          |
| 3-(2-aminoethylamino) propyltrimethoxysilane  | Eyes - Severe irritant      | Rabbit  | -     | -                          |
|   | Skin - Mild irritant        | Rabbit  | -     | -                          |
| xylene  | Eyes - Severe irritant      | Rabbit  | -     | 24 hours 5 milligrams      |
|   | Skin - Irritant             | Rabbit  | -     | -                          |
| ethylbenzene  | Skin - Moderate irritant    | Rabbit  | -     | 24 hours 500 milligrams    |
|   | Eyes - Mild irritant        | Rabbit  | -     | -                          |
| dimethyl dimethoxy silane   | Respiratory - Mild irritant | Rabbit  | -     | -                          |
|   | Skin - Mild irritant        | Rabbit  | -     | 24 hours 15 milligrams     |
| methanol  | Eyes - Moderate irritant    | Rabbit  | -     | 24 hours 100 microliters   |
|   | Eyes - Moderate irritant    | Rabbit  | -     | 24 hours 100 milligrams    |
| toluene   | Skin - Moderate irritant    | Rabbit  | -     | 24 hours 20 milligrams     |
|   | Eyes - Mild irritant        | Rabbit  | -     | 0.5 minutes 100 milligrams |
| octamethylcyclotetrasiloxane  | Skin - Moderate irritant    | Rabbit  | -     | 24 hours 20 milligrams     |
|   | Eyes - Mild irritant        | Rabbit  | -     | 24 hours 500 milligrams    |
|   | Skin - Mild irritant        | Rabbit  | -     | 24 hours 500 milligrams    |

#### Sensitiser



### SECTION 11: Toxicological information

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

#### Mutagenic effects

No known significant effects or critical hazards.

#### Carcinogenicity

No known significant effects or critical hazards.

#### Reproductive toxicity

May damage fertility.

#### Teratogenic effects

No known significant effects or critical hazards.

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

| Product/ingredient name  | Category                               | Route of exposure | Target organs  |
|--|--|-------------------|--|
| 3-(2-aminoethylamino)propyltrimethoxysilane<br>methanol<br>toluene | Category 3<br>Category 1<br>Category 3 | oral              | Respiratory tract irritation<br>central nervous system (CNS), eyes<br>Narcotic effects |

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

| Product/ingredient name | Category                 | Route of exposure | Target organs       |
|-------------------------|--------------------------|-------------------|---------------------|
| ethylbenzene<br>toluene | Category 2<br>Category 2 | -<br>-            | hearing organs<br>- |

#### Aspiration hazard

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

#### Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

#### Potential chronic health effects

No known significant effects or critical hazards.

Sensitisation : Contains 3-(2-aminoethylamino)propyltrimethoxysilane. May produce an allergic reaction.

#### 11.2 Information on other hazards

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. Toxic to aquatic life with long lasting effects.

| Product/ingredient name                     | Result                                 | Species                                 | Exposure |
|---|--|---|----------|
| 3-(2-aminoethylamino)propyltrimethoxysilane | Acute EC50 126 mg/l                    | Algae                                   | 72 hours |
|   | Acute EC50 81 mg/l                     | Daphnia                                 | 48 hours |
| ethylbenzene                                | Acute LC50 597 mg/l                    | Fish                                    | 96 hours |
|   | Chronic NOEC <1000 µg/l Fresh water    | Algae - Pseudokirchneriella subcapitata | 96 hours |
| dimethyl dimethoxy silane                   | Acute LC50 >118 mg/l                   | Algae                                   | 72 hours |
|   | Acute LC50 >119 mg/l                   | Daphnia                                 | 48 hours |
| methanol                                    | Acute LC50 >126 mg/l                   | Fish                                    | 96 hours |
|   | Chronic NOEC 9.96 mg/l Marine water    | Algae - Ulva pertusa                    | 96 hours |
| toluene                                     | Chronic NOEC <500000 µg/l Fresh water  | Algae - Pseudokirchneriella subcapitata | 96 hours |
|   | Chronic NOEC 1000 µg/l Fresh water     | Daphnia - Daphnia magna                 | 21 days  |
| octamethylcyclotetrasiloxane                | Acute EC50 >0.022 mg/l                 | Algae                                   | 96 hours |
|   | Acute EC50 0.015 mg/l                  | Daphnia                                 | 48 hours |
|   | Acute LC50 >0.022 mg/l                 | Fish                                    | 96 hours |
|   | Chronic NOEC 1.7 - 15 µg/l Fresh water | Daphnia - Daphnia magna                 | 21 days  |
|   | Chronic NOEC 4.4 µg/l Fresh water      | Fish - Oncorhynchus mykiss - Egg        | 93 days  |

### SECTION 12: Ecological information

#### 12.2 Persistence and degradability

| Product/ingredient name                   | Test   | Result                        | Dose | Inoculum |
|---|--|-------------------------------|------|----------|
| (2-aminoethylamino)propyltrimethoxysilane | OECD 301A Ready Biodegradability - DOC Die-Away Test                                 | 39 % - Not readily - 28 days  | -    | -        |
| xylene                                    | OECD 301F Ready Biodegradability - Manometric Respirometry Test                      | 90 - 98 % - Readily - 28 days | -    | -        |
| ethylbenzene                              | -  | >60 % - Readily - 28 days     | -    | -        |
| toluene                                   | -  | >70 % - Readily - 28 days     | -    | -        |
| octamethylcyclotetrasiloxane              | OECD 310 Ready Biodegradability - CO <sub>2</sub> in Sealed Vessels (Headspace Test) | 100 % - Readily - 14 days     | -    | -        |
|   |  | 3.7 % - Not readily - 28 days | -    | -        |

| Product/ingredient name                   | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------|
| (2-aminoethylamino)propyltrimethoxysilane | -                 | -          | Not readily      |
| xylene                                    | -                 | -          | Readily          |
| ethylbenzene                              | -                 | -          | Readily          |
| toluene                                   | -                 | -          | Readily          |
| octamethylcyclotetrasiloxane              | -                 | -          | Not readily      |

#### 12.3 Bioaccumulative potential

| Product/ingredient name                   | LogP <sub>ow</sub> | BCF        | Potential |
|---|--------------------|------------|-----------|
| (2-aminoethylamino)propyltrimethoxysilane | -0.77              | -          | low       |
| xylene                                    | 3.12               | 8.1 - 25.9 | low       |
| ethylbenzene                              | 3.6                | -          | low       |
| methanol                                  | -0.77              | <10        | low       |
| toluene                                   | 2.73               | 90         | low       |
| octamethylcyclotetrasiloxane              | 6.488              | 13400      | high      |

#### 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.

#### 12.5 Results of PBT and vPvB assessment

| Product/ingredient name  | PBT                | P         | B         | T         | vPvB               | vP        | vB        |
|--|--------------------|-----------|-----------|-----------|--------------------|-----------|-----------|
| Polymers with 3-[(2-aminoethyl)amino]propyl Ph silsesquioxanes, methoxy-terminated | No                 | N/A       | N/A       | No        | N/A                | N/A       | N/A       |
| 3-(2-aminoethylamino)propyltrimethoxysilane  | No                 | N/A       | N/A       | No        | N/A                | N/A       | N/A       |
| xylene   | No                 | N/A       | No        | No        | No                 | N/A       | No        |
| methanol   | No                 | N/A       | No        | No        | No                 | N/A       | No        |
| toluene  | No                 | N/A       | No        | Yes       | No                 | N/A       | No        |
| octamethylcyclotetrasiloxane   | SVHC (Recommended) | Specified | Specified | Specified | SVHC (Recommended) | Specified | Specified |

#### 12.6 Other adverse effects

No known significant effects or critical hazards.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

The generation of waste should be avoided or minimised 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.

European waste catalogue no. (EWC) is given below.

European waste catalogue (EWC) : 08 01 11\*






#### Packaging

### SECTION 13: Disposal considerations

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

### 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 / ID 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>ADR/RID Class</b> | UN1263              | PAINT   | 3<br>  | III         | Yes.         | The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.<br><b>Tunnel code</b> (D/E) |
| <b>IMDG Class</b>    | UN1263              | PAINT.<br>(octamethylcyclotetrasiloxane (D4)) | 3<br>  | III         | Yes.         | The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.<br><b>Emergency schedules</b><br>F-E, S-E      |
| <b>IATA Class</b>    | UN1263              | PAINT   | 3<br>   | III         | Yes.         | The environmentally hazardous substance mark may appear if required by other transportation regulations.                             |

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 Maritime transport in bulk according to IMO instruments

Not applicable.

### SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorisation - Substances of very high concern

##### Annex XIV

None of the components are listed.

##### Substances of very high concern

| Ingredient name              | Intrinsic property | Status      | Reference number | Date of revision |
|------------------------------|--------------------|-------------|------------------|------------------|
| octamethylcyclotetrasiloxane | PBT                | Recommended | ED/71/2019       | 4/14/2021        |
| octamethylcyclotetrasiloxane | vPvB               | Recommended | ED/71/2019       | 4/14/2021        |

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

 Restricted to professional users.

#### Other EU regulations

##### Seveso category

This product is controlled under the Seveso III Directive.

| Seveso category   |
|---|
| P5c: Flammable liquids 2 and 3 not falling under P5a or P5b<br>E2: Hazardous to the aquatic environment - Chronic 2 |

#### 15.2 Chemical safety assessment




### SECTION 16: Other information


Abbreviations and acronyms :


ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 EUH statement = CLP-specific Hazard statement  
 RRN = REACH Registration Number  
 DNEL = Derived No Effect Level  
 PNEC = Predicted No Effect Concentration

Full text of abbreviated H statements :


 H225 Highly flammable liquid and vapour.  
 H226 Flammable liquid and vapour.  
 H301 Toxic if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H311 Toxic in contact with skin.  
 H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H331 Toxic if inhaled.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H360F May damage fertility.  
 H361d Suspected of damaging the unborn child.  
 H361f Suspected of damaging fertility.  
 H370 Causes damage to organs.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H411 Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS] :

 Acute Tox. 3 ACUTE TOXICITY - Category 3  
 Acute Tox. 4 ACUTE TOXICITY - Category 4  
 Aquatic Chronic 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1  
 Aquatic Chronic 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2  
 Asp. Tox. 1 ASPIRATION HAZARD - Category 1  
 Eye Dam. 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1  
 Flam. Liq. 2 FLAMMABLE LIQUIDS - Category 2  
 Flam. Liq. 3 FLAMMABLE LIQUIDS - Category 3  
 Repr. 1B REPRODUCTIVE TOXICITY - Category 1B  
 Repr. 2 REPRODUCTIVE TOXICITY - Category 2  
 Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2  
 Skin Sens. 1 SKIN SENSITISATION - Category 1  
 Skin Sens. 1B SKIN SENSITISATION - Category 1B  
 STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2  
 STOT SE 1 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1  
 STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

| Classification   | Justification   |
|--|---|
|  FLAMMABLE LIQUIDS<br>SKIN CORROSION/IRRITATION<br>SERIOUS EYE DAMAGE/EYE IRRITATION<br>SKIN SENSITISATION<br>REPRODUCTIVE TOXICITY<br>LONG-TERM (CHRONIC) AQUATIC HAZARD | On basis of test data<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.

# Safe Use of Mixture Information

## Hempel's Curing Agent 98000



This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

### General description of the process covered

Indoor or outdoor spray painting by professionals for specialist applications, with good general room ventilation plus respiratory protection

**This safe use information is linked to** : Professional spray painting, near-industrial setting  
Expert judgment

**Sector(s) of use** : Industrial uses - Professional uses

**Product category(ies)** : Coatings and paints, thinners, paint removers

### Operational conditions

**Place of use** : Indoor or outdoor use

**Range of application/Process conditions** : Assumes a good standard of occupational hygiene and safety management has been implemented. Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

**Others** : Depending on actual conditions of application. Please consult your local HEMPEL representative for further advice.

### Risk management measures (RMM)

| Contributing activity   | Process category (ies) | Maximum duration  | Ventilation                              |       | Respiratory   | Eye                                     | Hands  |
|---|------------------------|-------------------|--|-------|---|---|--|
|   |                        |                   | Type and air changes per hour            |       |   |   |  |
| Preparation of material for application                                     | PROC05                 | More than 4 hours | Good general room ventilation - Outdoors | 3 - 5 | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.                                | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. |
| Loading of application equipment and handling of coated parts before curing | PROC08b                | More than 4 hours | Good general room ventilation - Outdoors | 3 - 5 | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.                                | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. |
| Industrial application of coatings by spraying                              | PROC07                 | More than 4 hours | Good general room ventilation - Outdoors | 3 - 5 | Use a properly fitted, air-purifying or air-fed respirator. EN 14594 with an assigned protection factor of at least 20. | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. |
| Film formation - force drying, stoving and other technologies               | PROC04                 | More than 4 hours | Good general room ventilation - Outdoors | 3 - 5 | None  | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374.  |
| Cleaning  | PROC05                 | More than 4 hours | Good general room ventilation - Outdoors | 3 - 5 | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.                                | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. |
| Waste management  | PROC08b                | More than 4 hours | Good general room ventilation - Outdoors | 3 - 5 | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.                                | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. |

See chapter 8 of this Safety Data Sheet for specifications.

