### **Safety Data Sheet**

### **Hempel's Curing Agent 9843A**



1.4 Emergency telephone number

01633 833600 (08.00 - 17.00)

measures).

Emergency telephone number (with hours of operation)

See Section 4 of the safety data sheet (first aid

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878 - United Kingdom: Northern Ireland

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

1.1 Product identifier

Product name: Hempel's Curing Agent 9843A

Product identity: 9843A00000
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

Date of issue : 17 December 2021

Date of previous issue : No previous validation.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226 FLAMMABLE LIQUIDS

Skin Corr. 1C, H314 SKIN CORROSION/IRRITATION

Eye Dam. 1, H318 SERIOUS EYE DAMAGE/EYE IRRITATION

Skin Sens. 1, H317 SKIN SENSITISATION

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.

H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction.

Precautionary statements:

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

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

Response: IF INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a

POISON CENTER or doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. 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 : 2,4,6-tris(dimethylaminomethyl)phenol

3,6-diazaoctanethylenediamin bis[(dimethylamino)methyl]phenol

Supplemental label elements : Special packaging requirements

Version: 0.01 Page: 1/12



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

Containers to be fitted with child-

Not applicable.

resistant fastenings:

Tactile warning of danger: Not applicable.

### 2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result None known.

in classification:

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

#### 3.2 Mixtures

| Product/ingredient name                | Identifiers   | %         | Regulation (EC) No. 1272/2008 [   | CLP]            | Туре    |
|--|---|-----------|---|-----------------|---------|
| xylene                                 | REACH #: 01-2119488216-32<br>EC: 215-535-7<br>CAS: 1330-20-7<br>Index: 601-022-00-9 | ≥10 - ≤25 | Flam. Liq. 3, H226<br>Acute Tox. 4, H312<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315   | С               | [1] [2] |
| benzyl alcohol                         | REACH #: 01-2119492630-38<br>EC: 202-859-9<br>CAS: 100-51-6<br>Index: 603-057-00-5  | ≥10 - ≤25 | Acute Tox. 4, H302<br>Acute Tox. 4, H332<br>Eye Irrit. 2, H319  | -               | [1]     |
| ethylbenzene                           | REACH #: 01-2119489370-35<br>EC: 202-849-4<br>CAS: 100-41-4<br>Index: 601-023-00-4  | ≥5 - <10  | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>STOT RE 2, H373 (hearing organs)<br>Asp. Tox. 1, H304   | -               | [1] [2] |
| 2,4,6-tris(dimethylaminomethyl) phenol | REACH #: 01-2119560597-27<br>EC: 202-013-9<br>CAS: 90-72-2                          | ≥3 - ≤5   | Acute Tox. 4, H302<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318   | -               | [1]     |
| 3,6-diazaoctanethylenediamin           | REACH #: 01-2119487919-13<br>EC: 203-950-6<br>CAS: 112-24-3<br>Index: 612-059-00-5  | ≥1 - ≤3   | Acute Tox. 3, H311<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>Aquatic Chronic 3, H412  | -               | [1]     |
| bis[(dimethylamino)methyl]<br>phenol   | EC: 275-162-0<br>CAS: 71074-89-0  | <1        | Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1B, H317  | -               | [1]     |
| toluene                                | REACH #: 01-2119471310-51<br>EC: 203-625-9<br>CAS: 108-88-3<br>Index: 601-021-00-3  | ≤0.3      | 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<br>See Section 16 for the full text of the H statements above. | -<br>s declared | [1] [2] |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment 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
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

### **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.

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

recognised skin cleanser. Do NOT use solvents or thinners.

Version: 0.01 Page: 2/12



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

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 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:

pain watering redness

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion: Adverse symptoms may include the following:

stomach pains

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

Notes to physician: 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, CO2, powders, water spray.

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.

Hazardous combustion products: Decomposition products may include the following materials: carbon oxides nitrogen 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.

Version: 0.01 Page: 3/12



### **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 vapour 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 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).

### 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

| Product/ingredient name | Exposure limit values  |
|-------------------------|--|
| xylene                  | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 441 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 220 mg/m³ 8 hours. STEL: 100 ppm 15 minutes.  |
| ethylbenzene            | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 552 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 441 mg/m³ 8 hours. TWA: 100 ppm 8 hours. |
| toluene                 | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 384 mg/m³ 15 minutes. TWA: 191 mg/m³ 8 hours. TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes.  |

Recommended monitoring procedures

Version: 0.01 Page: 4/12



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

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               | Туре | Exposure             | Value             | Population | Effects  |
|---------------------------------------|------|----------------------|-------------------|------------|----------|
| xylene                                | DNEL | Long term Inhalation | 77 mg/m³          | Workers    | Systemic |
|                                       | DNEL | Long term Dermal     | 180 mg/kg bw/day  | Workers    | Systemic |
| benzyl alcohol                        | DNEL | Long term Inhalation | 22 mg/m³          | Workers    | Systemic |
| •                                     | DNEL | Long term Dermal     | 8 mg/kg bw/day    | Workers    | Systemic |
| ethylbenzene                          | DNEL | Long term Dermal     | 180 mg/kg bw/day  | Workers    | Systemic |
| •                                     | DNEL | Long term Inhalation | 77 mg/m³          | Workers    | Systemic |
| 2,4,6-tris(dimethylaminomethyl)phenol | DNEL | Long term Inhalation | 0.53 mg/m³        | Workers    | Systemic |
|                                       | DNEL | Long term Dermal     | 0.15 mg/kg bw/day | Workers    | Systemic |
| 3,6-diazaoctanethylenediamin          | DNEL | Long term Dermal     | 0.57 mg/kg bw/day | Workers    | Systemic |
| ·                                     | DNEL | Long term Inhalation | 1 mg/m³           | Workers    | Systemic |
| toluene                               | DNEL | Long term Dermal     | 384 mg/kg bw/day  | Workers    | Systemic |
|                                       | DNEL | Long term Inhalation | 192 mg/m³         | Workers    | Systemic |

### **Predicted effect concentrations**

| Product/ingredient name               | Compartment Detail     | Value           | Method Detail      |
|---------------------------------------|------------------------|-----------------|--------------------|
| xylene                                | 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       | -                  |
| benzyl alcohol                        | Soil                   | 0.456 mg/kg wwt | Assessment Factors |
| •                                     | Sewage Treatment Plant | 39 mg/l         | Assessment Factors |
|                                       | Sediment               | 5.27 mg/kg wwt  | Assessment Factors |
|                                       | Marine water sediment  | 0.527 mg/kg wwt | Assessment Factors |
|                                       | Marine                 | 0.1 mg/l        | Assessment Factors |
|                                       | Fresh water            | 1 mg/l          | Assessment Factors |
| ethylbenzene                          | 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      | -                  |
| 2,4,6-tris(dimethylaminomethyl)phenol | Fresh water            | 0.084 mg/l      | -                  |
|                                       | Marine water           | 0.0084 mg/l     | -                  |
|                                       | Sewage Treatment Plant | 0.2 mg/l        | -                  |
| 3,6-diazaoctanethylenediamin          | Fresh water            | 190 μg/l        | -                  |
| ·                                     | Fresh water sediment   | 95.9 mg/kg      | -                  |
|                                       | Marine water           | 38 µg/l         | -                  |
|                                       | Marine water sediment  | 19.2 mg/kg      | -                  |
|                                       | Soil                   | 19.1 mg/kg      | -                  |
|                                       | Sewage Treatment Plant | 4.25 mg/l       | -                  |
| toluene                               | Fresh water            | 0.68 mg/l       | -                  |
|                                       | Marine water           | 0.68 mg/l       | -                  |
|                                       | Sewage Treatment Plant | 13.61 mg/l      | -                  |
|                                       | Fresh water sediment   | 16.39 mg/kg     | -                  |
|                                       | Marine water sediment  | 16.39 mg/kg     | -                  |
|                                       | Soil                   | 2.89 mg/kg      | -                  |

### 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.

Version: 0.01 Page: 5/12



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

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: 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.

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:

Short term exposure: neoprene rubber, natural rubber (latex), polyvinyl chloride (PVC), butyl rubber

Recommended: polyvinyl alcohol (PVA), Silver Shield / Barrier / 4H gloves, Viton®

May be used: nitrile rubber

Body protection: Personal protective equipment for the body should be selected based on the task being performed and

the risks involved handling this product.

Wear suitable protective clothing. Always wear protective clothing when spraying.

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.

Colour : Transparent

Odour : 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:

0.8 - 13 vol %

Vapour pressure : Testing not relevant or not possible due to nature of the product.

Vapour density : Testing not relevant or not possible due to nature of the product.

Specific gravity: 0.964 g/cm<sup>3</sup>

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: 337.78°C (640°F) (3,6-diazaoctanethylenediamin).

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: Slightly explosive in the presence of the following materials or conditions: open flames, sparks and

static discharge and heat.

Oxidising properties: Testing not relevant or not possible due to nature of the product.

Version: 0.01 Page: 6/12



### **SECTION 9: Physical and chemical properties**

#### 9.2 Other information

Solvent(s) % by weight : Weighted average: 48 % Water % by weight : Weighted average: 0 %

VOC content: 321 g/l

TOC Content: Weighted average: 291 g/l
Solvent Gas: Weighted average: 0.105 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 pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

### 10.5 Incompatible materials

Extremely reactive or incompatible with the following materials: acids.

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

Reactive or incompatible with the following materials: reducing materials and 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

### **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.

### Acute toxicity

| Product/ingredient name         | Result                          | Species | Dose        | Exposure |
|---------------------------------|---------------------------------|---------|-------------|----------|
| xylene                          | LC50 Inhalation Gas.            | Rat     | 5000 ppm    | 4 hours  |
|                                 | LC50 Inhalation Vapour          | Rat     | 6350 ppm    | 4 hours  |
|                                 | LD50 Dermal                     | Rabbit  | >4200 mg/kg | -        |
|                                 | LD50 Oral                       | Rat     | 3523 mg/kg  | -        |
| benzyl alcohol                  | LC50 Inhalation Dusts and mists | Rat     | >4178 mg/m³ | 4 hours  |
|                                 | LD50 Oral                       | Rat     | 1230 mg/kg  | -        |
| ethylbenzene                    | LD50 Dermal                     | Rabbit  | >5000 mg/kg | -        |
|                                 | LD50 Oral                       | Rat     | 3500 mg/kg  | -        |
| 2,4,6-tris(dimethylaminomethyl) | LD50 Dermal                     | Rabbit  | 1465 mg/kg  | -        |
| phenol                          |                                 |         |             |          |
|                                 | LD50 Oral                       | Rat     | 1200 mg/kg  | -        |
|                                 | LD50 Oral                       | Rat     | 2169 mg/kg  | -        |
| 3,6-diazaoctanethylenediamin    | LD50 Dermal                     | Rabbit  | 550 mg/kg   | -        |
|                                 | LD50 Oral                       | Rat     | 1716 mg/kg  | -        |
| toluene                         | LC50 Inhalation Vapour          | Rat     | >20 mg/l    | 4 hours  |
|                                 | LD50 Oral                       | Rat     | 636 mg/kg   | -        |

Acute toxicity estimates

Version: 0.01 Page: 7/12



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

| Product/ingredient name  | Oral<br>mg/kg                          | Dermal<br>mg/kg | Inhalation<br>(gases)<br>ppm | Inhalation<br>(vapours)<br>mg/l | Inhalation<br>(dusts and<br>mists)<br>mg/l |
|--|--|-----------------|------------------------------|---------------------------------|--|
| Hempel's Curing Agent 9843A xylene benzyl alcohol ethylbenzene 2,4,6-tris(dimethylaminomethyl)phenol | 5640.7<br>3523<br>1230<br>3500<br>1200 | 4329.3<br>1100  | 21985.2<br>5000              | 48.2<br>11<br>11                |  |
| 3,6-diazaoctanethylenediamin   |  | 550             |                              |                                 |  |

### 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  | -     | -                          |
| benzyl alcohol                         | Eyes - Visible necrosis     | Rabbit  | -     | -                          |
|  | Skin - Mild irritant        | Rabbit  | -     | -                          |
| ethylbenzene                           | Skin - Mild irritant        | Rabbit  | -     | 24 hours 15 milligrams     |
|  | Respiratory - Mild irritant | Rabbit  | -     | -                          |
|  | Eyes - Mild irritant        | Rabbit  | -     | -                          |
| 2,4,6-tris(dimethylaminomethyl) phenol | Eyes - Severe irritant      | Rabbit  | -     | 24 hours 50 Micrograms     |
| ·                                      | Skin - Severe irritant      | Rabbit  | -     | 24 hours 2 milligrams      |
| 3,6-diazaoctanethylenediamin           | Eyes - Moderate irritant    | Rabbit  | -     | 24 hours 20 milligrams     |
|  | Skin - Severe irritant      | Rabbit  | -     | 24 hours 5 milligrams      |
| toluene                                | Eyes - Mild irritant        | Rabbit  | -     | 0.5 minutes 100 milligrams |
|  | Skin - Moderate irritant    | Rabbit  | -     | 24 hours 20 milligrams     |

### Sensitiser

| Product/ingredient name      | Route of exposure | Species    | Result      |
|------------------------------|-------------------|------------|-------------|
| 3,6-diazaoctanethylenediamin | skin              | Guinea pig | Sensitising |

### **Mutagenic effects**

No known significant effects or critical hazards.

### Carcinogenicity

No known significant effects or critical hazards.

### Reproductive toxicity

No known significant effects or critical hazards.

### **Teratogenic effects**

No known significant effects or critical hazards.

### Specific target organ toxicity (single exposure)

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

### Specific target organ toxicity (repeated exposure)

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

### **Aspiration hazard**

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

### Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential chronic health effects

Sensitisation: Contains 3,6-diazaoctanethylenediamin. May produce an allergic reaction.

### 11.2 Information on other hazards

Version: 0.01 Page: 8/12

### Safety Data Sheet

### **Hempel's Curing Agent 9843A**



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

Endocrine disrupting properties: No known data avaliable in our database.

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                   | Daphnia                                 | 48 hours |
|  | Acute IC50 770 mg/l                   | Algae                                   | 72 hours |
|  | Acute LC50 460 mg/l                   | Fish                                    | 96 hours |
| ethylbenzene                           | Chronic NOEC <1000 µg/l Fresh water   | Algae - Pseudokirchneriella subcapitata | 96 hours |
| 2,4,6-tris(dimethylaminomethyl) phenol | Acute EC50 84 mg/l                    | Algae                                   | 72 hours |
|  | Acute LC50 175 mg/l                   | Fish                                    | 96 hours |
| 3,6-diazaoctanethylenediamin           | Acute EC50 20 mg/l                    | Algae                                   | 72 hours |
| _                                      | Acute EC50 31.1 mg/l                  | Daphnia                                 | 48 hours |
|  | Acute LC50 330 mg/l                   | Fish                                    | 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  |

### 12.2 Persistence and degradability

| Test                                  | Result  | Dose  | Inoculum  |
|---------------------------------------|---|---|---|
| OECD 301F Ready                       | 90 - 98 % - Readily - 28 days   | -   | -   |
| Biodegradability - Manometric         |   |   |   |
| Respirometry Test                     |   |   |   |
| -                                     | >60 % - Readily - 28 days   | -   | -   |
| OECD 301A 301A Ready                  | 95 - 97 % - Readily - 21 days   | -   | -   |
| Biodegradability - DOC Die-Away       |   |   |   |
| Test                                  |   |   |   |
| OECD 301C 301C Ready                  | 92 - 96 % - Readily - 14 days   | -   | -   |
| Biodegradability - Modified MITI      |   |   |   |
| Test (I)                              |   |   |   |
| -                                     | >70 % - Readily - 28 days   | -   | -   |
| OECD 301D 301D Ready                  | 4 % - Not readily - 28 days   | -   | -   |
| Biodegradability - Closed Bottle Test |   |   |   |
| -                                     | 100 % - Readily - 14 days   | -   | -   |
|                                       | OECD 301F Ready Biodegradability - Manometric Respirometry Test - OECD 301A 301A Ready Biodegradability - DOC Die-Away Test OECD 301C 301C Ready Biodegradability - Modified MITI Test (I) - OECD 301D 301D Ready | OECD 301F Ready Biodegradability - Manometric Respirometry Test - OECD 301A 301A Ready Biodegradability - DOC Die-Away Test OECD 301C 301C Ready Biodegradability - Modified MITI Test (I) - OECD 301D 301D Ready Biodegradability - Closed Bottle Test | OECD 301F Ready Biodegradability - Manometric Respirometry Test - |

| Product/ingredient name         | Aquatic half-life | Photolysis | Biodegradability |
|---------------------------------|-------------------|------------|------------------|
| xylene                          | -                 | -          | Readily          |
| benzyl alcohol                  | -                 | -          | Readily          |
| ethylbenzene                    | -                 | -          | Readily          |
| 2,4,6-tris(dimethylaminomethyl) | -                 | -          | Not readily      |
| phenol                          |                   |            |                  |
| toluene                         | -                 | -          | Readily          |

### 12.3 Bioaccumulative potential

| Product/ingredient name               | LogP <sub>ow</sub> | BCF        | Potential |
|---------------------------------------|--------------------|------------|-----------|
| xylene                                | 3.12               | 8.1 - 25.9 | low       |
| benzyl alcohol                        | 0.87               | 1.37       | low       |
| ethylbenzene                          | 3.6                | -          | low       |
| 2,4,6-tris(dimethylaminomethyl)phenol | 0.219              | -          | low       |
| 3,6-diazaoctanethylenediamin          | -1.661.4           | -          | low       |
| toluene                               | 2.73               | 90         | low       |

### 12.4 Mobility in soil

Soil/water partition coefficient

No known data avaliable in our database.

(K<sub>oc</sub>):

Mobility: No known data avaliable in our database.

### 12.5 Results of PBT and vPvB assessment

| Product/ingredient name   | PBT | Р | В | Т | vPvB | vΡ | vB |  |
|---|-----|---|---|---|------|----|----|--|
| This mixture does not contain any substances that are assessed to be a PBT or a vPvB. |     |   |   |   |      |    |    |  |

Version: 0.01 Page: 9/12



### **SECTION 12: Ecological information**

### 12.6 Endocrine disrupting properties

No known data avaliable in our database.

### 12.7 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**

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 14.2<br>UN / ID no. Proper shipping name |   | 14.3<br>Transport hazard class(es) | 14.4<br>PG* | 14.5<br>Env* | Additional information          |  |
|------------------|---|---|------------------------------------|-------------|--------------|---------------------------------|--|
| ADR/RID<br>Class | UN3469  | PAINT RELATED MATERIAL,<br>FLAMMABLE, CORROSIVE | 3 8                                | III         | No.          | Tunnel code (D/E)               |  |
| IMDG<br>Class    | UN3469  | PAINT RELATED MATERIAL,<br>FLAMMABLE, CORROSIVE | 3 8                                | III         | No.          | Emergency schedules<br>F-E, S-C |  |
| IATA<br>Class    | UN3469  | PAINT RELATED MATERIAL,<br>FLAMMABLE, CORROSIVE | 3 8                                | 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 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

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not applicable.

### Other EU regulations

Seveso category This product is controlled under the Seveso III Directive.

Version: 0.01 Page: 10/12

### Safety Data Sheet

### **Hempel's Curing Agent 9843A**



### SECTION 15: Regulatory information

Seveso category

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

### 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.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H311 Toxic in contact with skin. H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.

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

H412 Harmful 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 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

Asp. Tox. 1 ASPIRATION HAZARD - Category 1

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

FLAMMABLE LIQUIDS - Category 2 Flam. Liq. 2 FLAMMABLE LIQUIDS - Category 3 Flam. Liq. 3 Repr. 2 REPRODUCTIVE TOXICITY - Category 2 Skin Corr. 1B SKIN CORROSION/IRRITATION - Category 1B Skin Corr. 1C SKIN CORROSION/IRRITATION - Category 1C Skin Irrit 2 SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITISATION - Category 1 Skin Sens. 1 Skin Sens. 1B SKIN SENSITISATION - Category 1B

STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification                    | Justification         |
|-----------------------------------|-----------------------|
| FLAMMABLE LIQUIDS                 | On basis of test data |
| SKIN CORROSION/IRRITATION         | Calculation method    |
| SERIOUS EYE DAMAGE/EYE IRRITATION | Calculation method    |
| SKIN SENSITISATION                | 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 preformance 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.

Version: 0.01 Page: 11/12

# **Safe Use of Mixture Information Hempel's Curing Agent 9843A**



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 or with brush, roller, putty knife, dipping etc. with good general room ventilation.

This safe use information is linked to

: Professional spray painting and/or low-energy painting, Substance-specific

TETA

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.

### Risk management measures (RMM)

| Contributing activity   | Process category | Maximum<br>duration | Ventilation  Type and air changes per hour |       | Respiratory  | Eye                                     | Hands  |
|---|------------------|---------------------|--|-------|--|---|--|
| activity  | (ies)            | duration            |  |       |  |   |  |
| Preparation of material for application                                     | PROC05           | 1 to 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 | PROC08a          | 1 to 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. |
| Professional application of coatings by brush or roller                     | PROC10           | 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. |
| Professional application of coatings by spraying                            | PROC11           | 3 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 | 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. |
| Film formation - force<br>drying, stoving and other<br>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           | 1 to 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  | PROC08a          | 1 to 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









Page: 12/12