

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878 - Europe

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

#### 1.1 Product identifier

Product name : Hempel's Curing Agent 98290  
Product identity : 9829010000, 000E0BDC  
Product type : Curing agent

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

Field of application : yacht, ships and shipyards.  
Identified uses : Professional applications.

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

Company details : HEMPEL A/S  
Lundtoftegårdsvej 91  
DK-2800 Kgs. Lyngby  
Denmark  
Tel.: + 45 45 93 38 00  
hempel@hempel.com  
Date of issue : 5 May 2025  
Date of previous issue : 17 December 2024.

#### 1.4 Emergency telephone number

Emergency telephone number (with hours of operation)  
  
+45 45 93 38 00 (08.00 - 17.00)  
See section 4 First aid measures.

### 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]

Skin Corr. 1B, H314 SKIN CORROSION/IRRITATION  
Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION  
Skin Sens. 1, H317 SKIN SENSITIZATION  
Aquatic Chronic 2, H411 AQUATIC HAZARD (LONG-TERM)

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

#### 2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H314 - Causes severe skin burns and eye damage.  
H317 - May cause an allergic skin reaction.  
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention : Wear protective gloves, protective clothing and eye or face protection. Avoid release to the environment.

Response : Collect spillage. 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 : Polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine  
Methylstyrenated phenol  
benzyl alcohol  
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine  
2,4,6-tris(dimethylaminomethyl)phenol  
m-Xylylene-diamine  
polyethylenepolyamines  
formaldehyde, polymeric reaction products with 4-tert-butylphenol, m-phenylenebis(methylamine) and trimethylhexane-1,6-diamine  
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine  
pine oil

### SECTION 2: Hazards identification

Supplemental label elements : Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

#### Special packaging requirements

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

Tactile warning of danger : Not applicable.

#### 2.3 Other hazards

See Section 15 for details. EU - Substances of very high concern - vPvB

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

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	EC: 500-191-5 CAS: 68082-29-1	≥10 - ≤25	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
Methylstyrenated phenol	REACH #: 01-2119555274-38 EC: 270-966-8 CAS: 68512-30-1	≥10 - ≤25	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 3, H412	[1] [3]
benzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	≥10 - ≤25	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317	[1]
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	REACH #: 01-2119972320-44 EC: 500-191-5 CAS: 68082-29-1	≥3 - ≤5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 2, H411	[1]
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7 Index: 022-006-00-2	≥1 - ≤3	Carc. 2, H351 (inhalation)	[1] [*]
2,4,6-tris(dimethylaminomethyl) phenol	EC: 202-013-9 CAS: 90-72-2 Index: 603-069-00-0	≥1 - ≤3	Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317	[1]
4-tert-butylphenol	REACH #: 01-2119489419-21 EC: 202-679-0 CAS: 98-54-4 Index: 604-090-00-8	≥1 - <3	Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 2, H361f Aquatic Chronic 1, H410	[1] [4]
m-Xylylene-diamine	REACH #: 01-2119480150-50 EC: 216-032-5 CAS: 1477-55-0	<1	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412 EUH071	[1] [2]
polyethylenepolyamines	REACH #: 01-2119487919-13 EC: 292-588-2 CAS: 90640-67-8	<1	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]
formaldehyde, polymeric reaction products with 4-tert-butylphenol, m-phenylenebis (methylamine) and trimethylhexane-1,6-diamine	-	<1	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 3, H412	[1]
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	REACH #: 01-2119560598-25 EC: 247-063-2 CAS: 25513-64-8	≤0.3	Acute Tox. 4, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317	[1]
pine oil	CAS: 8002-09-3 List #: 692-006-0	≤0.3	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]

See Section 16 for the full text of the H statements declared above.

### SECTION 3: Composition/information on ingredients

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 vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance of equivalent concern - Endocrine disrupting properties

[\*] The classification as a carcinogen by inhalation applies only to mixtures placed on the market in powder form containing 1% or more of titanium dioxide particles with aerodynamic diameter  $\leq 10 \mu\text{m}$  not bound within a matrix.

List numbers have no legal significance.

### 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.
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 :	Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. In case of burns flush with water until the pain ceases. While flushing remove clothing from the affected area unless it is burnt into the skin. If hospital treatment is necessary flushing must continue during transfer and until the hospital staff takes over the treatment.
Ingestion :	If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat.
Protection of first-aiders :	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

##### Potential acute health effects

Eye contact :	Causes serious eye damage.
Inhalation :	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, CO<sub>2</sub>, powders, water spray.  
Not to be used: waterjet.

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

Hazards from the substance or mixture :  In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. This material may cause endocrine disruption in the environment. 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

#### 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. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

#### 6.2 Environmental precautions

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

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

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

#### 6.4 Reference to other sections

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

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

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**

**Occupational exposure limits**

Product/ingredient name	Exposure limit values
m-Xylylene-diamine	<b>EU OEL (Europe, 2/2010)</b> Absorbed through skin. (ACGIH) C: 0.1 mg/m <sup>3</sup> .

**Biological exposure indices**

Product/ingredient name	Exposure limit values
No exposure limit value known.	

**Recommended monitoring procedures**

Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Derived effect levels**

Product/ingredient name	Type - Population - Exposure	Value	Effects
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	DNEL - Workers - Long term - Inhalation	3.9 mg/m <sup>3</sup>	Effects: Systemic
	DNEL - Workers - Long term - Dermal	1.1 mg/kg bw/day	Effects: Systemic
Methylstyrenated phenol	DNEL - Workers - Long term - Dermal	3.5 mg/kg bw/day	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	1.4 mg/m <sup>3</sup>	Effects: Systemic
benzyl alcohol	DNEL - Workers - Long term - Inhalation	22 mg/m <sup>3</sup>	Effects: Systemic
	DNEL - Workers - Long term - Dermal	8 mg/kg bw/day	Effects: Systemic
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	DNEL - Workers - Long term - Inhalation	3.9 mg/m <sup>3</sup>	Effects: Systemic
	DNEL - Workers - Long term - Dermal	1.1 mg/kg bw/day	Effects: Systemic
2,4,6-tris(dimethylaminomethyl)phenol	DNEL - Workers - Long term - Inhalation	0.13 mg/m <sup>3</sup>	Effects: Systemic
	DNEL - Workers - Long term - Dermal	0.15 mg/kg bw/day	Effects: Systemic
4-tert-butylphenol	DNEL - Workers - Long term - Dermal	0.071 mg/kg	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	0.5 mg/m <sup>3</sup>	Effects: Systemic
m-Xylylene-diamine	DNEL - Workers - Long term - Dermal	0.33 mg/kg bw/day	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	1.2 mg/m <sup>3</sup>	Effects: Systemic
polyethylenepolyamines	DNEL - Workers - Long term - Inhalation	0.54 mg/m <sup>3</sup>	Effects: Systemic
	DNEL - Workers - Long term - Dermal	0.57 mg/kg bw/day	Effects: Systemic
	DNEL - General population - Consumers - Long term - Inhalation	0.29 mg/m <sup>3</sup>	Effects: Systemic
	DNEL - General population - Consumers - Long term - Dermal	0.25 mg/kg bw/day	Effects: Systemic
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	DNEL - General population - Consumers - Long term - Oral	0.41 mg/kg bw/day	Effects: Systemic
	DNEL - Workers - Long term - Oral	0.05 mg/kg bw/day	Effects: Systemic

**Predicted effect concentrations**

Product/ingredient name	Compartment Detail	Value
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	Fresh water	0.00434 mg/l
	Marine water	0.000434 mg/l
	Sewage Treatment Plant	3.84 mg/l
	Fresh water sediment	434.02 mg/kg
	Marine water sediment	43.4 mg/kg
Methylstyrenated phenol	Soil	86.78 mg/kg
	Sewage Treatment Plant	2.4 mg/l
	Fresh water	14 µg/l
	Marine	1.4 µg/l
	Fresh water sediment	1064 mg/kg dwt
benzyl alcohol	Marine water sediment	106 mg/kg dwt
	Soil	212 mg/kg dwt
	Soil - Assessment Factors	0.456 mg/kg ww
	Sewage Treatment Plant - Assessment Factors	39 mg/l
	Sediment - Assessment Factors	5.27 mg/kg ww
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	Marine water sediment - Assessment Factors	0.527 mg/kg ww
	Marine - Assessment Factors	0.1 mg/l
	Fresh water - Assessment Factors	1 mg/l
	Fresh water	0.00434 mg/l

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

2,4,6-tris(dimethylaminomethyl)phenol	Marine water	0.000434 mg/l
	Sewage Treatment Plant	3.84 mg/l
	Fresh water sediment	434.02 mg/kg
	Marine water sediment	43.4 mg/kg
	Soil	86.78 mg/kg
4-tert-butylphenol	Fresh water	0.084 mg/l
	Marine water	0.0084 mg/l
	Sewage Treatment Plant	0.2 mg/l
	Fresh water	0.01 mg/l
	Marine water	0.001 mg/l
m-Xylylene-diamine	Fresh water sediment	0.975 mg/kg dwt
	Marine water sediment	0.0975 mg/kg dwt
	Sewage Treatment Plant	1.5 mg/l
	Fresh water	0.094 mg/l
	Marine water	0.009 mg/l
polyethylenepolyamines	Fresh water sediment	12.4 mg/kg
	Marine water sediment	1.24 mg/kg
	Soil	2.44 mg/kg
	Sewage Treatment Plant	10 mg/l
	Fresh water	0.027 mg/l
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	Marine water	0.003 mg/l
	Sewage Treatment Plant	0.13 mg/l
	Fresh water sediment	8.572 mg/kg dwt
	Marine water sediment	0.857 mg/kg dwt
	Soil	1.25 mg/kg dwt
	Soil	10 mg/kg
	Marine water	0.01 mg/l
	Sewage Treatment Plant	72 mg/l
	Fresh water	0.102 mg/l
	Fresh water sediment	0.622 mg/kg
	Marine water sediment	0.062 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.
- 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 chemically 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:  
 Recommended: Silver Shield / Barrier / 4H gloves, polyvinyl alcohol (PVA), Viton®  
 May be used: butyl rubber (>0.5 mm)  
 Short term exposure: nitrile rubber (>0.3 mm), neoprene rubber (>0.1 mm), natural rubber (latex) (>0.4 mm), polyvinyl chloride (PVC), nitrile rubber (>0.1 mm), butyl rubber (>0.3 mm)
- 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.  
 Chemical-resistant apron.

### SECTION 8: Exposure controls/personal protection

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. (EN140) 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 : Paste  
 Color : White  
 Odor : Solvent-like  
 pH : Testing not relevant or not possible due to nature of the product.  
 Melting point/freezing point : Testing not relevant or not possible due to nature of the product.  
 Boiling point/boiling range : Testing not relevant or not possible due to nature of the product.  
 Flash point : Closed cup: 94°C (201.2°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.  
 Flammable in the presence of the following materials or conditions: heat.

Vapor pressure :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
benzyl alcohol	0.05	0.0067				

Vapor density : Not available.  
 Specific gravity : 0.78 g/cm<sup>3</sup>  
 Partition coefficient (LogKow) : Testing not relevant or not possible due to nature of the product.

Auto-ignition temperature :

Ingredient name	°C	°F	Method
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	401	753.8	

Decomposition temperature : Testing not relevant or not possible due to nature of the product.  
 Viscosity : Testing not relevant or not possible due to nature of the product.  
 Explosive properties : Slightly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.  
 Oxidizing properties : Testing not relevant or not possible due to nature of the product.

#### 9.2 Other information

Solvent(s) % by weight : Weighted average: 12 %  
 Water % by weight : Weighted average: 0 %  
 VOC content : 33 g/l  
 TOC Content : Weighted average: 28 g/l  
 Solvent Gas : Weighted average: 0.022 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

No specific data.

#### 10.5 Incompatible materials

Reactive or incompatible with the following materials: oxidizing materials.

Slightly 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.

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

#### Acute toxicity

Product/ingredient name	Result	Dose / Exposure	Effects
Methylstyrenated phenol	Rat - Oral - LD50 Rat - Dermal - LD50 Rat - Inhalation - LC50 Dusts and mists	>2000 mg/kg >2000 mg/kg >5 mg/l [4 hours]	Toxic effects: Peripheral Nerve and Sensation - Flaccid paralysis without anesthesia (usually neuromuscular blockage) Lung, Thorax, or Respiration - Dyspnea
benzyl alcohol	Rat - Oral - LD50 Rat - Inhalation - LC50 Dusts and mists	1230 mg/kg >4178 mg/m <sup>3</sup> [4 hours]	
titanium dioxide	Rat - Oral - LD50 Rabbit - Dermal - LD50 Rat - Inhalation - LC50 Dusts and mists	>5000 mg/kg >5000 mg/kg >6.8 mg/l [4 hours]	
2,4,6-tris(dimethylaminomethyl) phenol	Rat - Dermal - LD50  Rat - Oral - LD50	1280 mg/kg  1200 mg/kg	
4-tert-butylphenol	Rat - Oral - LD50 Rabbit - Dermal - LD50 Rat - Oral - LD50 Rat - Inhalation - LC50 Dusts and mists	2169 mg/kg 2288 mg/kg 2951 mg/kg >5600 mg/m <sup>3</sup> [4 hours]	
m-Xylylene-diamine	Rat - Oral - LD50 Rabbit - Dermal - LD50 Rat - Inhalation - LC50 Dusts and mists	930 mg/kg >3100 mg/kg 1.34 mg/l [4 hours]	

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polyethylenepolyamines	Rat - Oral - LD50	1716 mg/kg	Toxic effects: Lung, Thorax, or Respiration - Other changes Gastrointestinal - Changes in structure or function of salivary glands Blood - Hemorrhage
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	Rabbit - Dermal - LD50	1465 mg/kg	
	Rat - Oral - LD50	910 mg/kg	
pine oil	Rabbit - Dermal - LD50	5 g/kg	
	Rat - Oral - LD50	2.1 g/kg	

### Acute toxicity estimates

Product/ingredient name	Oral mg/kg	Dermal mg/kg	Inhalation (gases) ppm	Inhalation (vapors) mg/l	Inhalation (dusts and mists) mg/l
Hempel's Curing Agent 98290	12000.0				
benzyl alcohol	1200				
4-tert-butylphenol	2951	2288			
m-Xylylene-diamine	930			11	
polyethylenepolyamines	1716	1465			
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	910				
pine oil	2100	5000			

### Irritation/Corrosion

Product/ingredient name	Result	Species	Exposure
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine Methylstyrenated phenol	Rabbit - Eyes - Severe irritant		
	Rabbit - Eyes - Mild irritant		
benzyl alcohol	Rabbit - Skin - Irritant		
	Rabbit - Eyes - Visible necrosis		
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	Rabbit - Skin - Mild irritant		
	Rabbit - Eyes - Severe irritant		
titanium dioxide	Human - Skin - Mild irritant	Duration of treatment/ exposure: 72 hours	Amount/concentration applied: 300 Micrograms Intermittent
2,4,6-tris(dimethylaminomethyl) phenol	Rabbit - Eyes - Severe irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 50 Micrograms
	Rabbit - Skin - Severe irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 2 milligrams
4-tert-butylphenol	Rabbit - Eyes - Severe irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 50 Micrograms
	Rabbit - Skin - Mild irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 500 milligrams
m-Xylylene-diamine	Rabbit - Eyes - Severe irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 50 Micrograms
	Rabbit - Skin - Severe irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 750 Micrograms
pine oil	Rabbit - Respiratory - Severe irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 500 milligrams
	Rabbit - Skin - Severe irritant		

### Sensitizer

Product/ingredient name	Species - Route of exposure	Result
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	Mouse - skin	Result: Sensitizing
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	Mouse - skin	Result: Sensitizing

### Mutagenic effects

No known data available in our database.

### Carcinogenicity

No known data available in our database.

### Reproductive toxicity

No known data available in our database.

### SECTION 11: Toxicological information

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

Product/ingredient name	Category	Route of exposure	Target organs
No known data available in our database.			

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

Product/ingredient name	Category	Route of exposure	Target organs
No known data available in our database.			

#### Aspiration hazard

Product/ingredient name	Result
No known data available in our database.	

#### Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

#### Potential chronic health effects

No known significant effects or critical hazards.

#### 11.2 Information on other hazards

Endocrine disrupting properties : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

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
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	Acute - LC50	Fish	7.07 mg/l [96 hours]
	Acute - EC50	Daphnia	7.07 mg/l [48 hours]
Methylstyrenated phenol	Acute - EC50	Algae	4.34 mg/l [72 hours]
	Acute - EC50	Daphnia	14 - 51 mg/l [48 hours]
	Acute - EC50	Algae	15 mg/l [72 hours]
benzyl alcohol	Acute - EC50	Fish	25.8 mg/l [96 hours]
	Acute - LC50	Fish	460 mg/l [96 hours]
	Acute - EC50	Daphnia	230 mg/l [48 hours]
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	Acute - IC50	Algae	770 mg/l [72 hours]
	Acute - LC50	Fish	7.07 mg/l [96 hours]
	Acute - EC50	Daphnia	7.07 mg/l [48 hours]
titanium dioxide	Acute - EC50	Algae	4.34 mg/l [72 hours]
	Acute - LC50	Fish	>100 mg/l [96 hours]
	Acute - LC50	Daphnia	>100 mg/l [48 hours]
2,4,6-tris(dimethylaminomethyl) phenol	Acute - EC50	Algae	84 mg/l [72 hours]
	Acute - LC50	Fish	175 mg/l [96 hours]
4-tert-butylphenol	Acute - LC50 - Fresh water	Fish - Fathead minnow - <i>Pimephales promelas</i>	5140 - 5620 µg/l [96 hours]
	Chronic - NOEC - Fresh water	Fish - common carp - <i>Cyprinus carpio</i> - Adult	2.3 mg/l [28 days]
	Acute - LC50	Fish	1.6 mg/l [48 hours]
m-Xylylene-diamine	Acute - EC50	Daphnia	3.4 mg/l [48 hours]
	Acute - EC50	Algae	14 mg/l [72 hours]
	Acute - LC50	Fish - <i>Leuciscus idus</i>	87.6 mg/l [96 hours]
	Acute - EC50	Daphnia - Daphnia - <i>Daphnia</i>	15.2 mg/l [48 hours]
	Acute - EC50	Algae	20.3 mg/l [72 hours]
	Acute - NOEC	Daphnia	4.7 mg/l [21 days]
polyethylenepolyamines	Acute - EC50	Daphnia	31.1 mg/l [48 hours]
	Acute - EC50	Algae	20 mg/l [72 hours]
	Acute - EC50	Algae	29.5 mg/l [72 hours]

**SECTION 12: Ecological information**

**12.2 Persistence and degradability**

Product/ingredient name	Test	Result
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine benzyl alcohol	OECD Ready Biodegradability - Closed Bottle Test	15% [28 days] - Not readily
	OECD Ready Biodegradability - Modified MITI Test (I)	92 - 96% [14 days] - Readily
	OECD Ready Biodegradability - DOC Die-Away Test	95 - 97% [21 days] - Readily
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine 2,4,6-tris(dimethylaminomethyl)phenol	OECD Ready Biodegradability - Closed Bottle Test	15% [28 days] - Not readily
	OECD Ready Biodegradability - Closed Bottle Test	4% [28 days] - Not readily
	OECD Ready Biodegradability - DOC Die-Away Test	98% [28 days] - Readily
4-tert-butylphenol m-Xylylene-diamine	OECD Ready Biodegradability - CO <sub>2</sub> Evolution Test EU	49% [28 days] - Inherent
		7% [28 days] - Not readily

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine Methylstyrenated phenol			Not readily
			Not readily
benzyl alcohol polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine			Readily
			Not readily
2,4,6-tris(dimethylaminomethyl)phenol phenol			Not readily
			Not readily
4-tert-butylphenol m-Xylylene-diamine			Readily
			Inherent
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine			Not readily
			Not readily

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	10.34	1.89	Low
Methylstyrenated phenol	3.627	-	Low
benzyl alcohol	0.87	1.37	Low
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	10.34	1.89	Low
2,4,6-tris(dimethylaminomethyl)phenol	0.219	-	Low
4-tert-butylphenol	3	44 - 48	Low
m-Xylylene-diamine	0.18	2.69	Low
polyethylenepolyamines	-2.65	-	Low
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	-0.3	-	Low

**12.4 Mobility in soil**

**Soil/Water partition coefficient**

Product/ingredient name	logK <sub>oc</sub>	K <sub>oc</sub>
benzyl alcohol	1.1	12.6442
2,4,6-tris(dimethylaminomethyl)phenol	2.72	525.589
4-tert-butylphenol	3.32	2073.21
m-Xylylene-diamine	1.67	46.5812

**Results of PMT and vPvM assessment**

### SECTION 12: Ecological information

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	No	No	No	No	No	No	No
Methylstyrenated phenol	No	No	No	No	No	Yes	No
benzyl alcohol	No	No	Yes	No	No	No	Yes
polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine	No	No	No	No	No	No	No
titanium dioxide	No	No	No	No	No	No	No
2,4,6-tris(dimethylaminomethyl)phenol	No	No	Yes	No	No	No	No
4-tert-butylphenol	No	No	No	Yes	No	No	No
m-Xylylene-diamine	No	No	Yes	No	No	No	Yes
polyethylenepolyamines	No	No	No	No	No	No	No
formaldehyde, polymeric reaction products with 4-tert-butylphenol, m-phenylenebis(methylamine) and trimethylhexane-1,6-diamine	No	No	No	No	No	No	No
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	No	No	No	No	No	No	No
pine oil	No	No	No	No	No	No	No

Mobility : The product does not meet the criteria to be considered as a PMT or vPvM.

#### 12.5 Results of PBT and vPvB assessment

##### Regulation (EC) No. 1907/2006 [REACH]

See Section 15 for details. EU - Substances of very high concern - vPvB

#### 12.6 Endocrine disrupting properties

May cause endocrine disruption.

#### 12.7 Other adverse effects

May cause endocrine disruption.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

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

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






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

#### Packaging

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

### SECTION 14: Transport information

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

	14.1 UN / ID no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env*	Additional information
<b>ADR/RID Class</b>	UN1759	CORROSIVE SOLID, N.O.S. (polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine)	8  	II	Yes.	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. <b>Tunnel code (E)</b>
<b>IMDG Class</b>	UN1759	CORROSIVE SOLID, N.O.S.. (polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine)	8  	II	Yes.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. <b>Emergency schedules</b> F-A, S-B
<b>IATA Class</b>	UN1759	CORROSIVE SOLID, N.O.S. (polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and triethylenetetramine)	8 	II	Yes.	The environmentally hazardous substance mark may appear if required by other transportation regulations.

### SECTION 14: Transport information

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 authorization - 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
Methylstyrenated phenol 4-tert-butylphenol	vPvB Endocrine disrupting properties for environment	Candidate Candidate	D(2023)8585-DC ED/71/2019, EU/2019/1194	1/23/2024 7/16/2019

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.

Seveso category
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 :

H226 Flammable liquid and vapor.  
H302 Harmful if swallowed.  
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.  
H351 Suspected of causing cancer.  
H361f Suspected of damaging fertility.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.  
EUH071 Corrosive to the respiratory tract.

Full text of classifications [CLP/GHS] :

Acute Tox. 4 ACUTE TOXICITY - Category 4  
Aquatic Acute 1 AQUATIC HAZARD (ACUTE) - Category 1  
Aquatic Chronic 1 AQUATIC HAZARD (LONG-TERM) - Category 1  
Aquatic Chronic 2 AQUATIC HAZARD (LONG-TERM) - Category 2  
Aquatic Chronic 3 AQUATIC HAZARD (LONG-TERM) - Category 3  
Carc. 2 CARCINOGENICITY - Category 2  
Eye Dam. 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
Eye Irrit. 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
Flam. Liq. 3 FLAMMABLE LIQUIDS - Category 3

### SECTION 16: Other information

Repr. 2	TOXIC TO REPRODUCTION - Category 2
Skin Corr. 1A	SKIN CORROSION/IRRITATION - Category 1A
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B

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

Classification	Justification
SKIN CORROSION/IRRITATION	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION	Calculation method
SKIN SENSITIZATION	Calculation method
AQUATIC HAZARD (LONG-TERM)	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.

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, local effect - Level III  
Skin Corr. 1, Eye Dam. 1, Resp. Sens. 1 or EUH071

**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

### Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type	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 chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.
Loading of application equipment and handling of coated parts before curing	PROC08a	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.
Professional application of coatings by brush or roller	PROC10	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.
Professional application of coatings by spraying	PROC11	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 chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	None	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 chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.
Waste management	PROC08a	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.

See section 8 of this Safety Data Sheet for specifications.

