

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830 - Portugal

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

#### 1.1 Product identifier

Product name : HEMPEL'S CURING AGENT 98721  
Product identity : 9872109990  
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 (Portugal) Lda.  
Vale de Cantadores  
2954-002 Palmela  
Tel.: +351 212 351 022  
hempel@hempel.com

#### 1.4 Emergency telephone number

Telefone de Emergência da Hempel (Portugal) Lda:  
Tel: + 351 21 235 23 26 / + 351 21 235 10 22  
See Section 4 of the safety data sheet (first aid measures).  
Número Nacional de Emergência: 112  
CIAV - Centro de Informação Antivenenos (Portuguese Poison Centre)  
Tel: + 351 808 250 143  
Fax: + 351 213 303 275

Date of issue : 15 March 2018  
Date of previous issue : 26 February 2016.

### 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 Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2  
Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1  
Aquatic Chronic 2, H411 AQUATIC HAZARD (LONG-TERM) - Category 2

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

#### 2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements :  
H319 - Causes serious eye irritation.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention : Avoid breathing vapors, spray or mists. Wear protective gloves/protective clothing/eye protection/face protection.

Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical attention.

Hazardous ingredients : Middle molecular epoxy resin MMW 700-1200  
5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (mixture 3:1)

Supplemental label elements : Contains epoxy constituents. May produce an allergic reaction.

#### Special packaging requirements

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

Tactile warning of danger : Not applicable.


## SECTION 2: Hazards identification

### 2.3 Other hazards

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


## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
<div>                      Middle molecular epoxy resin MMW 700-1200                 </div>	EC: 500-033-5 CAS: 25068-38-6 Index: 603-074-00-8	≥50 - ≤75	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
2-(propyloxy)ethanol	EC: 220-548-6 CAS: 2807-30-9 Index: 603-095-00-2	≥5 - ≤10	Acute Tox. 4, H312 Eye Irrit. 2, H319  See Section 16 for the full text of the H statements declared above.	[1]

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

-  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 unconscious, place in recovery position and seek medical advice.
Skin contact :	Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion :	If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting 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. 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 irritation.
Inhalation :	No known significant effects or critical hazards.
Skin contact :	Causes skin irritation. May cause an allergic skin reaction.
Ingestion :	No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

Eye contact :	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation :	No specific data.

### SECTION 4: First aid measures

Skin contact : Adverse symptoms may include the following:  
irritation  
redness

Ingestion : No specific data.

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

Notes to physician : 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. 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 halogenated compounds

#### 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

Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training.

#### 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).

#### 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

Contains epoxy constituents. Avoid all possible skin contact with epoxy and amine containing products, they may cause allergic reactions. 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

### SECTION 7: Handling and storage

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
No exposure limit value known.	

#### Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### Derived effect levels

No DNELs/DMELs available.

#### Predicted effect concentrations

No PNECs available.

#### 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.

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:

Recommended: Silver Shield / Barrier / 4H gloves, nitrile rubber, neoprene rubber, butyl rubber, polyvinyl alcohol (PVA), Viton®  
May be used: natural rubber (latex), polyvinyl chloride (PVC)

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.

### 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. 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.
Odor :	Amine-like.
pH :	7 - 9
Melting point/freezing point :	-16°C This is based on data for the following ingredient: middle molecular epoxy resin MMW 700-1200
Boiling point/boiling range :	Testing not relevant or not possible due to nature of the product.
Flash point :	Non-flammable.
Evaporation rate :	Testing not relevant or not possible due to nature of the product.
Flammability :	Non-flammable.
Lower and upper explosive (flammable) limits :	1.3 - 16 vol %
Vapor pressure :	0 kPa This is based on data for the following ingredient: middle molecular epoxy resin MMW 700-1200
Vapor density :	Testing not relevant or not possible due to nature of the product.
Specific gravity :	1.076 g/cm³
Solubility(ies) :	Easily 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 :	Testing not relevant or not possible due to nature of the product.
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 :	Testing not relevant or not possible due to nature of the product.
Oxidizing properties :	Testing not relevant or not possible due to nature of the product.

#### 9.2 Other information

Solvent(s) % by weight :	Weighted average: 5 %
Water % by weight :	Weighted average: 42 %
VOC content :	56.5 g/l
TOC Content :	Weighted average: 33 g/l
Solvent Gas :	Weighted average: 0.013 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

No specific data.

### SECTION 10: Stability and reactivity

#### 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 halogenated compounds

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Exposure to component solvent vapor concentrations may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.

Epoxy and amine containing products can cause skin disorders such as allergic eczema. The allergy may arise after only a short exposure period.

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Middle molecular epoxy resin MMW 700-1200 2-(propyloxy)ethanol	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Dermal	Rabbit	960 uL/kg	-
	LD50 Oral	Rat	3090 mg/kg	-

#### Acute toxicity estimates

Route	ATE value
Dermal	20964.4 mg/kg

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure
2-(propyloxy)ethanol	Eyes - Severe irritant	Rabbit	-	24 hours 750 Micrograms
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams

#### Sensitizer

Product/ingredient name	Route of exposure	Species	Result
Middle molecular epoxy resin MMW 700-1200	skin	Guinea pig	Sensitizing

#### 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
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.			

### SECTION 11: Toxicological information

#### 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

Sensitization : Contains middle molecular epoxy resin MMW 700-1200. May produce an allergic reaction.

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
Middle molecular epoxy resin MMW 700-1200	Acute EC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours

#### 12.2 Persistence and degradability

No known data available in our database.

#### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Middle molecular epoxy resin MMW 700-1200 2-(propyloxy)ethanol	2.64 - 3.78 0.673	31 -	low low

#### 12.4 Mobility in soil

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

Mobility : No known data available in our database.

#### 12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

#### 12.6 Other adverse effects

No known significant effects or critical hazards.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

The generation of waste should be avoided or 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 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>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (middle molecular epoxy resin MMW 700-1200)	9  	III	Yes.	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
<b>IMDG Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.. (middle molecular epoxy resin MMW 700-1200)	9  	III	Yes.	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. <b>Emergency schedules</b> F-A, S-F
<b>IATA Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (middle molecular epoxy resin MMW 700-1200)	9  	III	Yes.	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

PG\* : Packing group

Env.\* : Environmental hazards

### 14.6 Special precautions for user

**Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

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

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.

##### Seveso category

: Hazardous to the aquatic environment - Chronic 2

#### 15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still required.



### 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 :	<div><div>H312</div><div>H315</div><div>H317</div><div>H319</div><div>H411</div></div> <div><div>Harmful in contact with skin.</div><div>Causes skin irritation.</div><div>May cause an allergic skin reaction.</div><div>Causes serious eye irritation.</div><div>Toxic to aquatic life with long lasting effects.</div></div>
Full text of classifications [CLP/GHS] :	<div><div>Acute Tox. 4, H312</div><div>Aquatic Chronic 2, H411</div><div>Eye Irrit. 2, H319</div><div>Skin Irrit. 2, H315</div><div>Skin Sens. 1, H317</div></div> <div><div>ACUTE TOXICITY (dermal) - Category 4</div><div>AQUATIC HAZARD (LONG-TERM) - Category 2</div><div>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2</div><div>SKIN CORROSION/IRRITATION - Category 2</div><div>SKIN SENSITIZATION - Category 1</div></div>

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

Classification	Justification
<div><div>SKIN CORROSION/IRRITATION - Category 2</div><div>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2</div><div>SKIN SENSITIZATION - Category 1</div><div>AQUATIC HAZARD (LONG-TERM) - Category 2</div></div>	<div><div>Calculation method</div><div>Calculation method</div><div>Calculation method</div><div>Calculation method</div></div>

#### 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.