



# Safety Data Sheet

(11314)

## HEMPEL'S CURING AGENT 98300

Protective Clothing	General Hazard	DOT

Conforms to ANSI Z400.1-2010 Standard - HPR - Canada

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

#### 1.1 Product identifier

Product name : HEMPEL'S CURING AGENT 98300  
 Product identity : 9830000000  
 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 : 37300 = 37309 1 vol / 98300 1 vol ; 37301 = 37308 1 vol / 98300 1 vol  
 Identified uses : Industrial/Professional use

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

Company details : Hempel (Canada), Inc.  
 #111 19097 26th Ave  
 Surrey, B.C V3S 3V7  
 Phone: 604-536-4275  
 Fax: 604-536-4375  
 Toll free: 1 800 661 3201  
 E-mail Hempel@Hempel.com

Manufacturer : HEMPEL (USA), Inc., 600 Conroe Park North Drive, Conroe, Texas 77303, USA

#### 1.4 Emergency telephone number (with hours of operation)

For Transportation Emergencies : CHEMTREC: **1-800-424-9300** (Toll-free in the U.S., Canada and the U.S. Virgin Islands) **703-527-3887**  
 (24 hours)  
 For calls originating elsewhere (Collect calls are accepted). Contract number: CCN10384  
 To preserve the effectiveness of arrangements for providing accurate and timely emergency response information, the basic identifying information (shipper name or contract number) must be included on shipping papers.  
 If the purchaser of this product is going to be shipping this product to other locations, the purchaser must arrange for its own Emergency Information Provider to respond to transport incidents. Hempel's 24 hour response contract does not cover non-Hempel shipments.

For all other information : In Canada toll free calling available: 1-800-661-3201 or (604)-273-3200  
 (8 AM - 5 PM CST) See Section 4 of the safety data sheet (first aid measures).

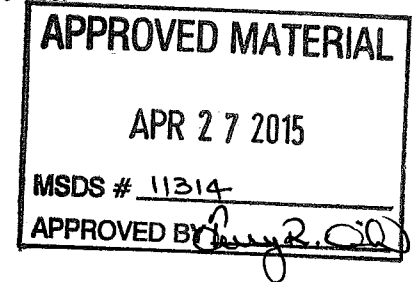
### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

GHS Classification : SKIN CORROSION/IRRITATION - Category 2  
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
 SKIN SENSITIZATION - Category 1

#### 2.2 Label elements

Hazard pictograms :



# HEMPEL

Safety Data Sheet



### SECTION 2: Hazards identification

Signal word : Warning

Hazard statements : H319 - Causes serious eye irritation.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.

Precautionary statements :

Prevention : Wear protective gloves. Wear eye or face protection. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response : IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

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

Supplemental label elements : None known.

#### 2.3 Other hazards

Hazards not otherwise classified : None known.

### SECTION 3: Composition/information on ingredients

Product definition : Mixture

Physical state : Liquid.

Product/ingredient name	Identifiers	%	GHS Classification
4,4'-Diphenol F-(epichlorhydrin) epoxy resin MW =< 700	28064-14-4	75 - 100	SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1
3-(2,3-epoxypropoxy) propyl trimethoxy silane	2530-83-8	1 - 3	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.  
Occupational exposure limits, if available, are listed in Section 8.

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.

### 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 911 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. In all cases of doubt, or when symptoms persist, seek 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.



## SECTION 4: First aid measures

### 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 :	Irritating to mouth, throat and stomach.

#### Over-exposure signs/symptoms

Eye contact :	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation :	No specific data.
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 :	Not applicable.
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 phosphorus oxides halogenated compounds 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.

## 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). Water polluting material. May be harmful to the environment if released in large quantities.

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





## 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.
- Hand protection : Wear chemical-resistant gloves 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 / 4H gloves, nitrile rubber, butyl rubber, Viton®  
Not recommended: neoprene rubber, natural rubber (latex), polyvinyl alcohol (PVA), 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.
- Respiratory protection : Wear appropriate respirator when ventilation is inadequate. Be sure to use approved/certified respirator or equivalent. It is not possible to specify precise filter type, since the actual work situation is unknown. Supplier of respirators should be contacted in order to find the appropriate filter.
- Protective clothing (pictograms) : 
- Note: Application of paint products by spraying requires additional safety precautions: Full body suit, Full face respirator with air supplied.

## 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 : 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: 101°C (213.8°F)
- Evaporation rate : Testing not relevant or not possible due to nature of the product.
- Flammability : Not available.
- Upper/lower flammability or explosive limits : No specific data.
- Vapor pressure : Testing not relevant or not possible due to nature of the product.
- Vapor density : Testing not relevant or not possible due to nature of the product.
- Relative density : 1.178 g/cm<sup>3</sup>
- Solubility(ies) :
- 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.

**SECTION 9: Physical and chemical properties**

Viscosity : Testing not relevant or not possible due to nature of the product.  
 Explosive properties : Not available.  
 Oxidizing properties : Testing not relevant or not possible due to nature of the product.

**9.2 Other information**

Solvent(s) % by weight (Included exempt solvent(s)): 0.63 % (w/w)  
 Water % by weight : Weighted average: 0 %  
 VOC content (Coatings) : 0.0621 lbs/gal (7.4 g/l)  
 VOC content (Regulatory) : 0.0621 lbs/gal (7.4 g/l)  
 TOC Content (Volatile) : Weighted average: 4 g/l  
 Solvent Gas : Weighted average: 0.005 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****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 phosphorus oxides halogenated compounds metal oxide/oxides

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

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
Bisphenol F-(epichlorhydrin) epoxy resin MW =< 700	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
3-(2,3-epoxypropoxy) propyl trimethoxy silane	LC50 Inhalation Dusts and mists	Rat	5.3 mg/l	4 hours
	LD50 Dermal	Rabbit	3970 uL/kg	-
	LD50 Oral	Rat	7.01 g/kg	-

**Acute toxicity estimates**

**SECTION 11: Toxicological information**

Route	ATE value
No known significant effects or critical hazards.	

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure
(2,3-epoxypropoxy) propyl trimethoxy silane	Eyes - Irritant	Rabbit	-	-

**Sensitizer**

Product/ingredient name	Route of exposure	Species	Result
(2,3-epoxypropoxy) propyl trimethoxy silane	skin	Guinea pig	Not sensitizing

**Information on the likely routes of exposure**

Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential chronic health effects**

Product/ingredient name	Result	Species	Dose	Exposure
(2,3-epoxypropoxy) propyl trimethoxy silane	Sub-acute NOAEL Oral	Rat	500 mg/kg	28 days
	Sub-acute NOAEL Inhalation Dusts and mists	Rat	0.225 mg/kg	14 days

Sensitization : Contains bisphenol F-(epichlorhydrin) epoxy resin MW =< 700. 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.

When spilled, this product may act as an oil, causing a film, sheen, emulsion, or sludge at or beneath the surface of a body of water. Oils of any kind can cause: (a) drowning of waterfowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility; (b) lethal effect on fish by coating gill surfaces, preventing respiration; (c) potential fish kills resulting from alteration in biochemical oxygen demand; (d) asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom; and (e) adverse aesthetic effects of fouled shoreline and beaches.

Product/ingredient name	Result	Species	Exposure
Bisphenol F-(epichlorhydrin) epoxy resin MW =< 700 3-(2,3-epoxypropoxy) propyl trimethoxy silane	Acute EC50 3.5 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 5.7 mg/l Acute EC50 324 mg/l	Fish - guldskalle (Leuciscus idus) Daphnia	96 hours 48 hours
	Acute LC50 55 mg/l	Fish - Cyprinus carpio	96 hours

**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
(2,3-epoxypropoxy) propyl trimethoxy silane	-	37 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Bisphenol F-(epichlorhydrin) epoxy resin MW =< 700 3-(2,3-epoxypropoxy) propyl trimethoxy silane	-	10 - 16%; 28 day(s)	-
	-	-	Not readily

**SECTION 12: Ecological information****12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
bisphenol F-(epichlorhydrin) epoxy resin MW =< 700	3.6	-	low
3-(2,3-epoxypropoxy) propyl trimethoxy silane	0.5	-	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 Other adverse effects**

No known significant effects or critical hazards.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.





The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7 and Section 8 for additional handling information and protection of employees.

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

Transport may take place according to national regulation or TDG for transport by road and by train, IMDG for transport by sea, IATA for Air shipment.





	14.1 UN no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env*	Additional information
DOT Code	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol F-(epichlorhydrin) epoxy resin MW =< 700).	9 -	 	III Yes.	ERG : 171 The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes.  <u>Reportable quantity</u> (chlorine) 1676.1 kg [375.87 gal / 1422.8 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
TDG Code	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol F-(epichlorhydrin) epoxy resin MW =< 700).	9 -	 	III Yes.	The product is not regulated as a dangerous good when transported by road or rail.

**HEMPEL**  
Safety Data Sheet





**SECTION 14: Transport information**

<b>IMDG Code</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol F-(epichlorhydrin) epoxy resin MW =< 700).	9 -	 	III	Yes.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.  <u>Emergency schedules (EmS)</u> F-A, S-F
<b>IATA Code</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol F-(epichlorhydrin) epoxy resin MW =< 700)	9 -	 	III	Yes.	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Code : Classification  
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 73/78 and the IBC Code**

Not applicable.

**SECTION 15: Regulatory information**

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

U.S. Federal regulations : All components are listed or exempted.

**Canada**

WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).



Canadian lists :

- CEPA Toxic substances:** None of the components are listed.
- Canadian ARET:** None of the components are listed.
- Canadian NPRI:** None of the components are listed.
- Alberta Designated Substances:** None of the components are listed.
- Ontario Designated Substances:** None of the components are listed.
- Quebec Designated Substances:** None of the components are listed.
- CEPA Toxic Substances (Schedule I):** Particulate Matter (spray mist – during spray application).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**SECTION 16: Other information**

Remarks : Warning! If you scrape, sand, or remove old paint, you may release lead dust. LEAD is TOXIC.

Validation : Validated by US - HSE Products Coordinator on 3/11/2015.

**GHS Classification**

Procedure used to derive the classification.

Classification	Justification
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method

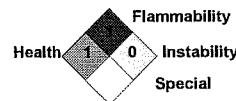
Hazardous Material Information System (U.S.A.)

National Fire Protection Association (U.S.A.)



### SECTION 16: Other information

Health	1
Fire hazard	1
Physical hazards	0
Personal protection	H



Personal Protective Equipment (PPE) shown in this section is a suggestion. Since conditions vary from one work location to another consult the facility safety & health program. Customer or end user is responsible to evaluate worker exposure conditions at the site of application and determine the appropriate PPE suitable for workers at that particular facility or location.

#### Abbreviations and acronyms :

ANSI = American National Standards Institute  
HCS = Hazardous Communication System  
TSCA = Toxic Substances Control Act  
CFR = Code of federal Regulations  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
OSHA = United States Occupational Health and Safety Administration  
NIOSH = National Institute for Occupational Safety and Health  
ACGIH = American Conference of Industrial Hygienists  
IARC = International Agency for Research on Cancer.  
NTP = National Toxicology Program  
ATE = Acute Toxicity Estimate

OECD = Organisation for Economic Co-operation and Development  
BCF = Bioconcentration Factor  
DOT = United States Department of Transportation  
ERG = Emergency Response Guide  
TDG = Transport of Dangerous Goods, Canada  
SCT = Transportation & Communications Ministry, Mexico  
IMDG = International Maritime Dangerous Goods  
IATA = International Air Transport Association  
WHMIS = Workplace Hazardous Material Information System  
CEPA = Canadian Environmental Protection Act  
NOM = Norma Oficial Mexicana  
IDLH = Immediate Danger to Life and Health

#### Notice to reader

Indicates information that has changed from previously issued version.

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*