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Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

Printing date: 06/25/15

Γ

Revision: 06/25/15

1 Identification of the substance/mixture and of the company/undertaking
<ul> <li>1.1 Product identifier</li> <li>Trade name: <u>High Moisture Tolerance (HMT) Epoxy Hardener</u></li> <li>Application of the substance / the preparation: Epoxy curing agent</li> <li>1.3 Details of the supplier of the Safety Data Sheet</li> <li>Distributor: <ul> <li>E.W. Industries Ltd.</li> <li>P.O. Box 336</li> <li>Imperial, SK. SOG 2J0</li> <li>CANADA</li> <li>Tel (888) 799-3960</li> </ul> </li> <li>Further information obtainable from: Product Safety Department</li> <li>1.4 Emergency telephone number: ChemTrec Inc. (800)424-9300, +1 (813) 622-7031</li> </ul>
2 Hazards identification
<ul> <li>2.1 Classification of the substance or mixture</li> <li>Classification according to Regulation (EC) No 1272/2008</li> </ul>
GHS08 health hazard
Repr. 2; H361f: Suspected of damaging fertility.
GHS05 corrosion
Skin Corr. 1B; H314: Causes severe skin burns and eye damage.
GHS07
Acute Tox. 4; H302: Harmful if swallowed. Acute Tox. 4; H332: Harmful if inhaled.
Skin Sens. 1; H317: May cause an allergic skin reaction. STOT SE 3; H335: May cause respiratory irritation.
Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects.
· Classification according to Directive 67/548/EEC or Directive 1999/45/EC
C; Corrosive
R34: Causes burns. Xn; Harmful
R20/22: Harmful by inhalation and if swallowed.
Xi; Irritant
R37: Irritating to respiratory system.
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Trade name: <u>High Moisture Tolerance (HMT Epoxy Hardener</u>
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Xi; Sensitising
R43: May cause sensitisation by skin contact.
<ul> <li>R52/53: Harmful to aquatic organism s, may cause long-term adverse effects in the aquatic environment.</li> <li>Information concerning particular hazards for human and environment: The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.</li> <li>Classification system: The classification is according to the latest editions of the EU-lists, and extended by company and literature data.</li> </ul>
<ul> <li>2.2 Label elements</li> <li>Labelling according to Regulation (EC) No 1272/2008</li> <li>The product is classified and labelled according to the CLP regulation.</li> <li>Hazard pictograms</li> </ul>
GHS05 GHS07 GHS08
· Signal word: Danger
<ul> <li>Hazard-determining components of labelling: Polyamido Amine</li> <li>2.2'-iminodiethylamine</li> <li>bisphenol A</li> <li>3,6,9-triazaundecamethylenediamine</li> <li>Hazard statements</li> <li>H302+H332: Harmful if swallowed or if inhaled.</li> <li>H314: Causes severe skin burns and eye damage.</li> <li>H317: May cause an allergic skin reaction.</li> <li>H361f: Suspected of damaging fertility.</li> <li>H335: May cause respiratory irritation.</li> <li>H412: Harmful to aquatic life with long lasting effects.</li> <li>Contains Polyamido Amine, 3,6,9-triazaundecamethylenediamine, 2-piperazin-1-ylethylamine, bisphenol A, 2,2'-iminodiethylamine. May produce an allergic reaction.</li> <li>Precautionary statements</li> <li>P260: Do not breathe dust/fume/gas/mist/vapours/spray.</li> <li>P281: Use personal protective gloves/protective clothing/eye protection/face protection.</li> <li>P273: Avoid release to the environment.</li> <li>P264: Wash thoroughly after handling.</li> <li>P270: Do not eat, drink or smoke when using this product.</li> <li>P271: Use only outdoors or in a well-ventilated area.</li> <li>P272: Contaminated work clothing should not be allowed out of the workplace.</li> <li>P201: Obtain special instructions before use.</li> </ul>
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# (Contd. of page 2) P202: Do not handle until all safety precautions have been read and understood. P303+P361+P353: IF ON SKIN (or hair); Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER or doctor/physician. P321: Specific treatment (see on this label). P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P363: Wash contaminated clothing before reuse. P308+P313: IF exposed or concerned: Get medical advice/attention. P333+P313: If skin irritation or rash occurs: Get medical advice/attention. P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P330: Rinse mouth. P302+P352: IF ON SKIN: Wash with plenty of soap and water. P405: Store locked up. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P501: Dispose of contents/container in accordance with local/regional/national/international regulations. · Hazard description: · WHMIS-symbols: D2A - Very toxic material causing other toxic effects D2B - Toxic material causing other toxic effects E - Corrosive material NFPA ratings (scale 0 - 4) Health = 3Fire = 1 Reactivity = 0 0 · HMIS-ratings (scale 0 - 4) HEALTH Health = \*3 ↓ Fire = 1 Reactivity = 0 · 2.3 Other hazards Results of PBT and vPvB assessment · **PBT:** Not applicable. · vPvB: Not applicable.

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3 Composition/information	on on ingredients	
· Description: Mixture of subst	tances listed below with nonhazardous additions.	
· Dangerous components:		
CAS: 68953-36-6 EINECS: 273-201-6	Polyamido Amine Xn R20/22; Xi R36/37/38; Ki R43 ↓ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
CAS: 111-40-0 EINECS: 203-865-4 Index number: 612-058-00-X	2,2'-iminodiethylamine C R34; Xn R21/22; Xi R43 Skin Corr. 1B, H314 Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	2.5-10%
CAS: 112-57-2 EINECS: 203-986-2 Index number: 612-060-00-0	3,6,9-triazaundecamethylenediamine C R34; Xn R21/22; Xi R43; R51/53 Skin Corr. 1B, H314 Aquatic Chronic 2, H411 Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	2.5-10%
CAS: 140-31-8 EINECS: 205-411-0 Index number: 612-105-00-4	2-piperazin-1-ylethylamine C R34; Xn R21/22; Xi R43 R52/53 Skin Corr. 1B, H314 Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317 Aquatic Chronic 3, H412	2.5-10%
CAS: 80-05-7 EINECS: 201-245-8 Index number: 604-030-00-0	bisphenol A Xn R62; 🔀 Xi R37-41; 🔀 Xi R43	2.5-5.0%

### 4 First aid measures

#### · 4.1 Description of first aid measures

#### · General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### · After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

### · After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

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Trade name: High Moisture Tolerance (HMT Epoxy Hardener (Contd. of page 4) • After eye contact: Remove contact lenses if worn. Rinse opened eye for several minutes under running water. Then consult a doctor. • After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately. 4.2 Most important symptoms and effects, both acute and delayed Allergic reactions Nausea Dizziness Breathing difficulty · Hazards Danger of impaired breathing. · 4.3 Indication of any immediate medical attention and special treatment needed Treat skin and mucous membrane with antihistamine and corticoid preparations. Monitor circulation. 5 Firefighting measures

5.1 Extinguishing media

• Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions. • 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

• 5.3 Advice for firefighters

· Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

• Additional information Cool endangered receptacles with water spray.

### 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Remove persons from danger area. Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Clean the affected area carefully; suitable cleaners are: Warm water and cleansing agent
6.4 Reference to other sections See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## 7 Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection: No special measures required.

#### · 7.2 Conditions for safe storage, including any incompatibilities

- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.

· Information about storage in one common storage facility:

Store away from oxidizing agents.

Store away from foodstuffs.

Do not store together with acids.

- Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- · 7.3 Specific end use(s) No further relevant information available.

# 8 Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

#### · 8.1 Control parameters

· Ingredients v	vith limit values that require monitoring at the workplace:	
111-40-0 2,2'	iminodiethylamine	
REL (USA)	4 mg/m³, 1 ppm Skin	
TLV (USA)	4,2 mg/m³, 1 ppm Skin	
EL (Canada)	1 ppm Skin; S	
EV (Canada)	4 mg/m³, 1 ppm Skin	
112-57-2 3,6,	9-triazaundecamethylenediamine	
WEEL (USA)	5 mg/m³ Skin; DSEN	
· Additional in	formation: The lists valid during the making were used as basis.	
· 8.2 Exposure	e controls	
Personal pro	tective equipment:	
· General prot	ective and hygienic measures:	
	om foodstuffs, beverages and feed.	
	emove all soiled and contaminated clothing	
	before breaks and at the end of work.	
Avoid contact	with the eyes and skin.	(Contd. on page 7)
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· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation. Use suitable respiratory protective device when aerosol or mist is formed.

#### Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• Material of gloves

Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

### · Eye protection:



Safety glasses

Goggles recommended during refilling • Body protection: Protective work clothing

9.1 Information on basic physical General Information	and chemical properties	
Appearance:	Linuid	
Form:	Liquid	
Colour:	Amber coloured	
Odour:	Ammonia-like	
Odour threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	200°C (392 °F)	
Flash point:	195°C (383 °F)	

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Flammability (solid, gaseous):	Not applicable.	
Ignition temperature:	315°C (599 °F)	
Decomposition temperature:	Not determined.	
Self-igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapour pressure:	Not determined.	
Density at 20°C:	1,02 g/cm <sup>3</sup>	
Relative density	Not determined.	
Vapour density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
water:	Fully miscible.	
Partition coefficient (n-octanol/wa	ater): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
9.2 Other information	No further relevant information available.	

### 10 Stability and reactivity

· 10.1 Reactivity

· 10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

#### 10.3 Possibility of hazardous reactions

Reacts with peroxides and other radical forming substances. Reacts with oxidizing agents.

Reacts with acids.

• **10.4 Conditions to avoid** No further relevant information available.

• 10.5 Incompatible materials: No further relevant information available.

# 10.6 Hazardous decomposition products:

Nitrogen oxides (NOx)

Ammonia

Carbon monoxide and carbon dioxide

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1 Toxicological information	
· 11.1 Information on toxicological effects	_
· Acute toxicity:	
· LD/LC50 values relevant for classification:	
111-40-0 2,2'-iminodiethylamine	
Oral LD50 1080 mg/kg (rat)	
Dermal LD50 1090 mg/kg (rabbit)	
112-57-2 3,6,9-triazaundecamethylenediamine	
Dermal LD50 660 mg/kg (rabbit)	
140-31-8 2-piperazin-1-ylethylamine	
Oral LD50 2140 mg/kg (rat)	
Dermal LD50 880 mg/kg (rabbit)	
80-05-7 bisphenol A	
Oral LD50 3250 mg/kg (rat)	
Dermal LD50 3000 mg/kg (rabbit)	
<ul> <li>Sensitization: Sensitization possible through skin contact. Sensitizing effect through inhalation is possible by prolonged exposure.</li> <li>Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Harmful Corrosive Irritant</li> <li>Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.</li> </ul>	:
2 Ecological information	
<ul> <li>12.1 Toxicity</li> <li>Aquatic toxicity: The product contains materials that are harmful to the environment.</li> <li>12.2 Persistence and degradability: Moderately /partly biodegradable</li> <li>12.3 Bioaccumulative potential: No further relevant information available.</li> <li>12.4 Mobility in soil: No further relevant information available.</li> <li>Ecotoxical effects:</li> <li>Remark: Harmful to fish</li> <li>Additional ecological information:</li> <li>General notes:</li> </ul>	

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system.

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Must not reach sewage water or drainage ditch undiluted or unneutralized. Danger to drinking water if even small quantities leak into the ground. Harmful to aquatic organisms

· 12.5 Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

• 12.6 Other adverse effects: No further relevant information available.

#### 13 Disposal considerations

#### · 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

#### · Uncleaned packaging:

• **Recommendation:** Disposal must be made according to official regulations.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

· 14.1 UN-Number · DOT, ADR, IMDG, IATA	UN2735	
• 14.2 UN proper shipping name • DOT, IMDG, IATA • ADR	Amines, Liquid, Corrosive N.O.S. (Polyamido Amine, 2,2'-iminodiethylamine bisphenol A, 3,6,9- triazaundecamethylenediamine) 2735 Amines, Liquid, Corrosive N.O.S. (Polyamido Amine, 2,2'-iminodiethylamine bisphenol A, 3,6,9- triazaundecamethylenediamine)	
<ul> <li>14.3 Transport hazard class(es)</li> <li>DOT</li> </ul>		
CONTRACT OF CONTRACT.		
Class	8 Corrosive substances.	
Class Label	8 Corrosive substances. 8	

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· Label	8
· IMDG, IATA	
· Class	8 Corrosive substances.
·Label	8
<ul> <li>14.4 Packing group</li> <li>DOT, ADR, IMDG, IATA</li> </ul>	111
<ul> <li>14.5 Environmental hazards:</li> <li>Marine pollutant:</li> </ul>	No
· 14.6 Special precautions for user	Warning: Corrosive substances.
Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· 14.7 Transport in bulk according to Ann	nex II of
MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
<ul> <li>Tunnel restriction code</li> </ul>	E
· UN "Model Regulation":	UN2735, Amines, Liquid, Corrosive N.O.S. (Polyamide Amine, 2,2'-iminodiethylamine bisphenol A, 3,6,9- triazaundecamethylenediamine)8, III

# 15 Regulatory information

 $\cdot$  15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  $\cdot$  United States (USA)

· SARA

• Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

80-05-7 bisphenol A

• TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65 (California):

 $\cdot$  Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

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· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
· Chemicals known to cause developmental toxicity:	
None of the ingredients is listed.	
· Carcinogenic Categories	
· EPA (Environmental Protection Agency)	
None of the ingredients is listed.	
· TLV (Threshold Limit Value established by ACGIH)	
None of the ingredients is listed.	
· NIOSH-Ca (National Institute for Occupational Safety and Health)	
None of the ingredients is listed.	
· OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	
· Canada	
· Canadian Domestic Substances List (DSL)	
All ingredients are listed.	
· Canadian Ingredient Disclosure list (limit 0.1%)	
111-40-0 2,2'-iminodiethylamine	
Canadian Ingredient Disclosure list (limit 1%) Ingredients are listed as required.	
112-57-2 3,6,9-triazaundecamethylenediamine	
140-31-8 2-piperazin-1-ylethylamine	
80-05-7 bisphenol A	

# **16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### · Relevant phrases

- 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.
- H335: May cause respiratory irritation.
- H361f: Suspected of damaging fertility.
- H411: Toxic to aquatic life with long lasting effects.
- H412: Harmful to aquatic life with long lasting effects.

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R2	20/22: Harmful by inhalation and if swallowed.
	21/22: Harmful in contact with skin and if swallowed.
	34: Causes burns.
	36/37/38: Irritating to eyes, respiratory system and skin.
	37: Irritating to respiratory system.
	11: Risk of serious damage to eyes.
	13: May cause sensitisation by skin contact.
R5	51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	52: Harmful to aquatic organisms.
	52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R6	52: Possible risk of impaired fertility.
At	bbreviations and Acronyms:
	R: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the
	ernational Carriage of Dangerous Goods by Road)
	DG: International Maritime Code for Dangerous Goods )T: US Department of Transportation
	TA: International Air Transport Association
	IS: Globally Harmonized System of Classification and Labelling of Chemicals
	CIH: American Conference of Governmental Industrial Hygienists PA: National Fire Protection Association (USA)
	/IS: Hazardous Materials Identification System (USA)
	HMIS: Workplace Hazardous Materials Information System (Canada)
	50: Lethal concentration, 50 percent
LD	50: Lethal dose, 50 percent

SDS Prepared by: Global Safety Management, Inc. 10006 Cross Creek Blvd, Suite 404 Tampa, Florida USA 33647 Toll Free North America: 1-(877) 683-7460 Website: www.globalsafetynet.com