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SDS Number: 106A
Revision Date: 02/27/2015
Supersedes Date: 02/21/2012

SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Name: EPOXY SUPER GLUE, PART A RESIN

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Type: Epoxy Hardener
Product Name: **CLEAR PART A**
Part Number(s): 10-100

Emergency Contact: Chemtrec
Phone: (800) 424-9300

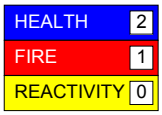
SECTION 2: HAZARD(S) IDENTIFICATION

· ***Hazard Rating System***
· ***NFPA System***
· ***NFPA Ratings (scale 0 - 4)***

Health = 2
Fire = 1
Reactivity = 0

NFPA special hazards (water reactivity and oxidizing property): None

· ***HMIS System***
· ***HMIS Ratings (scale 0 - 4)***



Health = 2
Fire = 1
Reactivity = 0

· ***Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*

· ***Hazard Classification***

GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

GHS07

Skin Irrit. 2 *H315 Causes skin irritation.*
Eye Irrit. 2A *H319 Causes serious eye irritation.*
Skin Sens. 1 *H317 May cause an allergic skin reaction.*

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SECTION 2: HAZARD(S) IDENTIFICATION (CONTINUED)

· ***Label Elements***

· ***GHS label elements*** *The product is classified and labeled according to the Globally Harmonized System (GHS).*

· ***Pictogram(s)***

GHS07 GHS09

· ***Signal Word*** *Warning*

· ***Hazard-determining Component(s)***
Bisphenol-A-(epichlorohydrin) epoxy resin

· ***Hazard statements***
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.

· ***Precautionary statements***
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
Wear eye protection / face protection.
Avoid release to the environment.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see on this label).
Wash contaminated clothing before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.

If on skin: Wash with plenty of water.
Collect spillage.
Take off contaminated clothing and wash it before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· ***Prevention***
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid release to the environment.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.

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SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS

· **Chemical Characterization: Mixtures**

· **Composition/Information on Ingredients**

CAS: 25068-38-6 NLP: 500-033-5 Index Number: 603-074-00-8	Bisphenol-A-(epichlorohydrin) epoxy resin Aquatic Chronic 2, H411 Skin Irrit. 2, H315; Skin Sens. 1, H317 Eye Dam. 2B, H320	90-100%

· **Classification System:**
The Classifications were based on the Toxicological and Ecological Data of the substances/mixtures in the Section 11 and 12.

SECTION 4: FIRST AID MEASURES

· **Description of First Aid Measures**

· **General Information**
Ensure medical personnel are aware of exposure and take precautions for their personal protection; see Section 8 for the information of personal protection.

· **After Inhalation**
Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing.
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.

· **After Skin Contact**
As quickly as possible remove contaminated clothing, shoes, and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Immediately flush with lukewarm water for 15 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard. If irritation persists, obtain medical advice.

· **After Eye Contact**
Immediately bathe eyes for 15 minutes under running water.
Immediately remove contact lenses if present. Continue rinsing.
Seek medical treatment in case of complaints.

· **After Swallowing**
If victim is unconscious; never give anything by mouth.
If victim is conscious, rinse out mouth and give two glasses of water.
Seek medical treatment in case of complaints.

· **After Exposure** Seek medical treatment in case of complaints.

· **Indication of any Immediate Medical Attention and Special Treatment Needed**
After frequent or high intense exposure, the following medical tests are recommended:
eye tests
skin tests
Check section 11 Toxicological Information for further relevant information.

· **Information for Doctor** Have chemical containers, labels and/or (M)SDS ready when calling or visiting a medical center.

· **Additional Information**
For additional information, please consult the corresponding first aid measures in the most current version of Emergency Response Guidebook which is produced by the US Department of Transportation.

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Product Name: EPOXY SUPER GLUE, PART A RESIN

SECTION 5: FIRE-FIGHTING MEASURES

· ***Extinguishing Media***

· ***Suitable Extinguishing Agent(s)***

Use fire fighting measures and extinguishing agents that suit the environment.
In case of fire, suitable extinguishing agents are:
Alcohol resistant foam.
Dry chemical or fire-extinguishing powder.
Carbon dioxide (CO_2).
Water spray or water fog.

· ***Unsuitable Extinguishing Agent(s)*** *Water with full jet*

· ***Firefighting Procedures***

Isolate fire and deny unnecessary entry.
Immediately withdraw all personnel from the area in case of rising sound from venting safety device.
Eliminate all ignition sources if safe to do so.
Do not extinguish fire unless flow can be stopped.
Fight fire remotely due to the risk of explosion.
Burning liquids may be moved by flushing with water; protect personnel and minimize property damage.
Contain fire water runoff if possible to prevent environmental pollution.
Fight fire from protected location or safe distance.
Contain fire water runoff if possible to prevent environmental pollution.

· ***Special Hazards Arising in Fire***

Will not burn unless preheated.
In case of fire, following can be released:
Phenolic compounds
Carbon dioxide (CO_2) and Carbon monoxide (CO)

· ***Advice for Firefighters***

If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard 1910.156).
As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

· ***Additional Information*** *Ensure adequate and functional fire fighting facilities equipped in working area at all times.*

SECTION 6: ACCIDENTAL RELEASE MEASURES

· ***Personal Precautions***

Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.
Ensure personnel take precautions for their personal protection during clean up; see Section 8 for the specific requirements.

· ***Environmental Precautions***

Keep away from sewage system or other water courses; do not penetrate ground/soil.
Inform respective authorities in case of any seepage to the environment.

· ***Cleaning Up Methods***

Ensure adequate ventilation.
Eliminate all ignition sources.
Keep unauthorized personnel away.
For large spills:
Shut off source of leak if safe to do so.
Dike and contain.
Remove with vacuum trucks or pump to storage/salvage vessels.
Absorb residues with liquid-binding materials.

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Product Name: EPOXY SUPER GLUE, PART A RESIN

SECTION 6: ACCIDENTAL RELEASE MEASURES (CONTINUED)

· ***Cleaning Up Methods***

For small spills:
Ventilate and wash area after clean-up is complete.
Collect spills in suitable and properly labeled containers.
Do not use solvents unless following safe handling practices and within the recommended exposure guidelines.
Dispose contaminated chemicals as waste according to Section 13.

· ***Additional Information*** *No further relevant information.*

SECTION 7: HANDLING AND STORAGE

· ***Precautions for Safe Handling***
Obtain special instruction before use; do not handle until all safety precautions have been read and understood.
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during handling.
Wear respiratory protection when handling.
Keep away from incompatible material(s).
Avoid any release into the environment.
Observe all the personal protection requirements in Section 8.

· ***Information about Protection Against Explosions and Fires***
Will not burn unless preheated.
Keep away from heat, sparks, open flame and other ignition sources during handling.

· ***Storage***

· ***Requirements to be Met by Storerooms and Receptacles***
Store in a well-ventilated place; provide ventilation for receptacles.
Keep stored in accordance with local, regional, national, and international regulations.

· ***Information about Storage in One Common Storage Facility***
Store away from incompatible material(s).
Store away from foodstuffs.
Avoid release to the environment.

· ***Additional Information*** *No further relevant information.*

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

· ***Engineering Measures or Controls***

· ***Exposure Limit Values that Require Monitoring at the Workplace***
The substance/mixture does not contain any relevant quantities of substances with critical values that have to be monitored at the workplace.

· ***Other Engineering Measures or Controls***
Ventilation rates should be matched to conditions.
If applicable, use process enclosure(s), local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

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Product Name: EPOXY SUPER GLUE, PART A RESIN

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION (CONTINUED)

· ***Personal Protective***

· ***General Protective and Hygienic Measures***

Avoid any skin contact.
Do not eat, drink or smoke during work.
Avoid any contact with the eye.
Keep food, drink or feed away from working area.
Contaminated work clothing is not allowed out of workplace.
Clean hands and exposed skin thoroughly after work and before breaks.

· ***Personal Protective Equipment (PPE)***

· ***Breathing Equipment***

Caution! Improper use of respirators is dangerous.
In case of brief exposure or low pollution, use a respiratory filter device.
In case of intensive or longer exposure, use a positive-pressure respiratory protective device that is independent of circulating air.

· ***Hand Protection***

Protective gloves

Selection of glove material should take into consideration the penetration times, rates of diffusion, and the degradation.
Suggested glove type(s):
Nitrile Gloves
Butyl Rubber Gloves

· ***Eye Protection***

Tightly sealed goggles

· ***Body Protection*** *No relevant information.*

· ***Additional Information***

All protective clothing (suits, gloves, footwear, headgear) should be clean, available every day, and put on before work.
The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

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Product Name: EPOXY SUPER GLUE, PART A RESIN

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

· **Information on Basic Physical and Chemical Properties**

· **Appearance:**
· **Form:** Liquid
· **Color:** Light yellow
· **Odor:** Mild epoxy odor
· **Odor Threshold:** Not determined.

· **PH-Value:** Not determined.

· **Change in Condition:**
· **Melting Point:** Not determined.
· **Boiling Point:** > 260 °C (> 500 °F)
· **Flash Point:** 252 °C (486 °F)
· **Decomposition Temperature:** Not determined.
· **Auto-ignition Temperature:** >300 °C (>572 °F)
· **Flammability:** Not determined
· **Explosion:** Not determined.
· **Explosion Limits:**
· **Lower:** Not determined.
· **Upper:** Not determined.

· **Vapor Pressure:** Not determined.
· **Density at 25 °C (77 °F):** 1.16 g/cm³ (9.68 lbs/gal)
· **Solubility in or Miscibility with**
· **Water:** Not miscible or difficult to mix.
· **Viscosity:**
· **Dynamic at 20 °C (68 °F):** 12000 mPas
· **Kinematic:** Not determined.

· **Additional Information** No further relevant information.

SECTION 10: STABILITY AND REACTIVITY

· **Physical Hazard(s)** Not a regulated reactive or physical hazard under GHS.

· **Hazardous Reactivity and Chemical Stability** Stable under normal conditions of use, storage and temperatures.

· **Thermal Decomposition and Conditions to be Avoided**
Keep away from incompatible material(s).
Thermally decomposes during fire or high heat; keep away from heat, sparks, open flame and other ignition sources.

· **Possibility of Other Hazardous Reaction(s)**
Masses of more than 1pound plus an aliphatic amine will cause irreversible polymerization and considerable heat build up. Material will also polymerize when in contact with sodium hydroxide.

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Product Name: EPOXY SUPER GLUE, PART A RESIN

SECTION 10: STABILITY AND REACTIVITY (CONTINUED)

· ***Incompatible Material(s)***
Oxidizing agents
Amines.
Mercaptans
Acids
Bases (Alkalis)

· ***Hazardous Decomposition Product(s)***
Thermally decomposes during fire or very high heat. See Section 5 for fire hazards evolved during thermal decomposition.

· ***Hazardous Polymerization Product(s)*** *No relevant information.*

· ***Additional Information*** *No further relevant information.*

SECTION 11: TOXICOLOGICAL INFORMATION

· ***Acute Toxicity***

· ***Oral***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

Oral	LD50	11400 mg/kg (rat) 15600 mg/kg (mouse) Reference: NLM Toxnet (2010).

· ***Potential Health Effect(s):*** *Not a classified acute oral hazard.*

· ***Dermal***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

Dermal	LD50	20000 mg/kg (rabbit) (Test guideline not available) > 1270 mg/kg (mouse) > 2000 mg/kg (rat) > 1600 mg/kg (rabbit); however, there was no fixed test result available; classification was not possible without further information. Reference: Royce (M)SDS (2011) and ChemID (2010).

· ***Potential Health Effect(s):*** *Not a classified acute dermal hazard.*

· ***Inhalative***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

Inhalative	LC50/4 h	(Test species: n/a) (Toxicity not expected based on the acute oral data)

· ***Potential Health Effect(s):*** *Not a classified acute inhalative hazard.*

· ***Skin Corrosion or Irritation***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

Corrosion/Irritation	irritating (rabbit) Acute skin irritation was mild, through repeated and prolonged exposure may cause severe irritation. The substance was classified as Category 2 by GHS-J. Reference: HSNO CCID (2010) and GHS-J (2006).

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Product Name: EPOXY SUPER GLUE, PART A RESIN

SECTION 11: TOXICOLOGICAL INFORMATION (CONTINUED)

· ***Potential Health Effect(s):***
Causes skin irritation.
In contact with skin, may cause:
redness and pain

· ***Eye Serious Damage or Irritation***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

Damage/Irritation	*irritating (rabbit)* *The substance caused eye irritation (Category 2A) based on the dermal effect to rabbit skin.*

· ***Potential Health Effect(s):***
Causes serious eye irritation.
In contact with eye, may cause:
redness and pain

· ***Respiratory or Skin Sensitization***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

Sensitization	*Skin*	*sensitizing (Human)* *Based on positive results from skin sensitization tests on human volunteers and guinea pigs, GHS-J classified the substance as a dermal sensitizer.* *Reference: GHS-J (2006).*
	Respiratory	*(No data available)*

· ***Potential Health Effect(s):***
May cause an allergic skin reaction.
No relevant information for respiratory sensitization; classification is not possible.

· ***OSHA-Ca (Occupational Safety & Health Administration)***

None of the ingredients is listed.

· ***Germ Cell Mutagenicity***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

Mutagenicity	*positive (Chinese hamster lung fibroblast cells) (In Vitro (Chromosomal Aberration))* *In Vitro (Chromosomal Aberration; Chinese hamster lung fibroblast cells) - Positive without metabolic activation; negative with metabolic activation.* *Positive (salmonella typhimurium) (In Vitro (Ames assay)). Due to the absence from In Vivo tests, it was not possible to make a conclusion of mutagenicity of the substance.* *Reference: NLM CCRIS (2010).*

· ***Potential Health Effect(s):*** *No further relevant information; classification is not possible.*

· ***Carcinogenicity***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

Carcinogenicity	*negative (Test species: n/a) (Not listed by ACGIH, IARC, NTP, or OSHA)* *(Mouse)* *1 out of 4 cases with female mice showed positive carcinogenic results after a repeated dermal application with 10% concentration of the substance for two years. When considering all of the evidence, the substance was not classified as a carcinogen.* *Reference: Dow (M)SDS (2010).*

· ***Potential Health Effect(s):*** *Not a known Carcinogen.*

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SECTION 11: TOXICOLOGICAL INFORMATION (CONTINUED)

· ***Reproductive Toxicity***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin	
Reproductive Toxi.	*negative (Test species: n/a) (no reproductive or developmental effect observed)* *There was no reproductive or developmental effect observed at dosing levels that were toxic to parental animals.* *Reference: GHS-J (2006).*

· ***Potential Health Effect(s):*** *Not a known Reproductive hazard.*

· ***Specific Target Organ Toxicity - Single Exposure***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin	
STOT-Single	*Target: None (Rats and Mice) (No effect after single oral doses)* *Somnolence (general depressed activity) and dyspnea were observed after a single oral application with 11400 mg/kg to rats, or 15600 mg/kg to mice of the substance. However, the dose levels were both outside of the guidance value ranges.* *Reference: NLM Toxnet (2010).*

· ***Potential Health Effect(s):*** *Not a known hazard to organs upon single exposure.*

· ***Specific Target Organ Toxicity - Repeated Exposure***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin	
STOT-Repeated	*Target: N/A (guinea pig) (insufficient data for classification)* *With dermal application of the substance for 55 days, increased seromucoid concentrations, decreased lactate-dehydrogenase (LDH), and decreased leucylnaphthylamidase (LNA) were observed in the test animals. Meanwhile, the substance caused a toxic effect on blood components of female guinea-pigs with greater effects on pregnant animals. However, there was no detail available regarding the dose level or test guideline, classification was thus not possible.* *Reference: HSNO CCID (2010).*

· ***Potential Health Effect(s):*** *No further relevant information; classification is not possible.*

· ***Aspiration Hazard***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin	
Aspiration Hazard	*(No data available)*

· ***Potential Health Effect(s):*** *No relevant information; classification is not possible.*

· ***Additional Information*** *No further relevant information.*

SECTION 12: ECOLOGICAL INFORMATION

· ***Aquatic Environmental Toxicity***

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin	
Algae Toxicity	*(No data available)*
Crustacean Toxicity	*1.4 - 1.7 mg/l (Daphnia magna (water flea)) (EC50 (48 hrs))*
Fish Toxicity	*1.41 mg/l (Oryzias latipes (Rice fish)) (LC50 (96 hrs))* *3.1 mg/l (Pimephales promelas (fathead minnow)) (LC50 (96 hrs))* *Based on the non-rapid degradability and the acute LC50 < 10 mg/L, the substance is classified as a Chronic-2 environmental hazard.* *Reference: Dow (M)SDS (2010) and CHRIP (2010).*

· ***Aquatic Environmental Toxicity Assessment:*** *Toxic to aquatic life with long lasting effects.*

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SECTION 12: ECOLOGICAL INFORMATION (CONTINUED)

· **Degradability and Stability**

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin	
Biodegradation	non-biodegrad. (Test species: n/a) (Biodegradation (OECD TG 302B; 28 days) = 12%) (Activated Sludge) (OECD TG 301C; 4 weeks; Conc. 100 mg/L) Biodegradation (Indirect Analysis from BOD) = 0% Biodegradation (Direct Analysis from HPLC) = 0% The substance is non-biodegradable. Reference: Dow (M)SDS (2010) and CHRIP (2010).
Persistence	(Test species: n/a) (This substance is persistent) Reference: Canada DSL (2007) and CHRIP (2010).
Photodegradation	6.69E-11 cm^3/molecule-sec (OH radical) (Half-life (T1/2) = 1.92 hrs) However, photolysis in water is negligible. Reference: Dow (M)SDS (2010).
Stability in water	(No data available)

· **Bioaccumulation and Distribution**

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin	
BCF	0.56-42 (Cyprinus carpio) (The substance is low-bioaccumulative) BCF (28 days; Concentration: 10 µg/L) = 0.56 - 0.67, 3.3 - 4.2 BCF (28 days; Concentration: 1 µg/L) = 5.6 - 6.8, 33 - 42 Reference: CHRIP (2010).
Koc	1800 - 4400 L/kg (soil) Potential for mobility in soil is moderate. Reference: Dow (M)SDS (2010).
LogPow	3.7 - 3.9 (Test species: n/a) Reference: Dow (M)SDS (2010).

· **Degradability and Bioaccumulation Assessment:** Non-rapidly degradable, and low bioaccumulative.

· **Additional Information** No further relevant information.

SECTION 13: DISPOSAL CONSIDERATIONS

· **Hazardous Waste List**

· **Description:** It may be necessary to contain and dispose of the substance/mixture as a hazardous waste.

· **Waste Treatment Recommendation:**
Generation of waste should be avoided or minimized wherever possible.
Chemical waste, even small quantities, is neither allowed to be poured down drains, sewage system or waterways; nor disposed with household garbage.
Dispose of contents/containers in accordance with local, regional, national, and international regulations.

· **Unused and Uncontaminated Packagings**

· **Recommendation** Dispose of according to your local waste regulations.

SECTION 14: TRANSPORT INFORMATION

· **UN-Number**

· **DOT, ADR, IMDG, IATA** UN3082

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Product Name: EPOXY SUPER GLUE, PART A RESIN

SECTION 14: TRANSPORT INFORMATION (CONTINUED)

· **UN Proper Shipping Name**
· **DOT, ADR, IMDG, IATA** — *Environmentally hazardous substances, liquid, n.o.s. (Bisphenol-A-(epichlorohydrin) epoxy resin)*

· **Transport hazard class(es)**
· **DOT, IMDG, IATA**

· **Class** — *9 Miscellaneous dangerous substances and articles*
· **Label** — *9*

· **ADR**

· **Class** — *9 (M6) Miscellaneous dangerous substances and articles*
· **Label** — *9*

· **Packing group**
· **DOT, ADR, IMDG, IATA** — *III*

· **Environmental Hazards:**
· **Marine Pollutant:** *Yes*
Symbol (fish and tree)
· **Special Marking (ADR):** *Symbol (fish and tree)*
· **Special Marking (IATA):** *Symbol (fish and tree)*

· **Special Precautions:** *Warning: Miscellaneous dangerous substances and articles*
· **Danger Code (Kemler):** *90*
· **EMS Number:** *F-A,S-F*

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Product Name: EPOXY SUPER GLUE, PART A RESIN

SECTION 14: TRANSPORT INFORMATION (CONTINUED)

· **Transport in Bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional Information:**

· **DOT**

· **Quantity limitations** On passenger aircraft/rail: No limit
On cargo aircraft only: No limit

· **Remarks:** Special marking with the symbol (fish and tree).

· **ADR**

· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

· **IMDG**

· **Limited quantities (LQ)** 5L

· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN3082, Environmentally hazardous substances, liquid, n.o.s. (Bisphenol-A-(epichlorohydrin) epoxy resin), 9, III

SECTION 15: REGULATORY INFORMATION

· **USA Regulation Lists**

· **SARA (Superfund Amendments and Reauthorization Act of 1986)**

· **Section 302 (Extremely Hazardous Substances)**

None of the ingredients is listed.

· **Section 313 (Toxics Release Inventory (TRI) reporting)**

None of the ingredients is listed.

· **Section 311/312 (Hazardous Chemical Inventory Reporting)**

25068-38-6	Bisphenol-A-(epichlorohydrin) epoxy resin	A, C	90-100%

· **Hazard Abbreviations for SARA 311/312**
A - Acute Health Hazard
C - Chronic Health Hazard
F - Fire Hazard
R - Reactive Hazard
S - Sudden Release of Pressure Hazard

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

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Product Name: EPOXY SUPER GLUE, PART A RESIN

SECTION 15: REGULATORY INFORMATION (CONTINUED)

· ***Proposition 65***

· ***Chemicals Known to Cause Cancer***

106-89-8	1-chloro-2,3-epoxypropane

· ***Chemicals Known to Cause Reproductive Toxicity for Females***

None of the ingredients is listed.

· ***Chemicals Known to Cause Reproductive Toxicity for Males***

106-89-8	1-chloro-2,3-epoxypropane

· ***Chemicals Known to Cause Developmental Toxicity***

None of the ingredients is listed.

· ***Carcinogenic Categories***

· ***EPA (Environmental Protection Agency)***

None of the ingredients is listed.

· ***IARC (International Agency for Research on Cancer)***

None of the ingredients is listed.

· ***NTP (National Toxicology Program)***

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.

· ***International Regulation Lists***

· ***Canadian Domestic Substance Listings:***

All ingredients are listed.

· ***Canadian Ingredient Disclosure list (limit 0.1%)***

None of the ingredients is listed.

· ***Canadian Ingredient Disclosure list (limit 1%)***

None of the ingredients is listed.

· ***Chinese Chemical Inventory of Existing Chemical Substances:***

All ingredients are listed.

· ***Japanese Existing and New Chemical Substance List:***

All ingredients are listed.

· ***Korean Existing Chemical Inventory:***

All ingredients are listed.

· ***European Pre-registered substances:***

All ingredients are listed.

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SECTION 15: REGULATORY INFORMATION (CONTINUED)

· ***REACh - Substances of Very High Concern (SVHC) List:***

None of the ingredients is listed.

· ***Restriction of Hazardous Substances Directive (RoHS) list:***

None of the ingredients is listed.

SECTION 16: OTHER INFORMATION

· ***Abbreviations and acronyms:***

ACGIH: American Conference of Governmental Industrial Hygienists
ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DOT: US Department of Transportation
HMIS: US National Paint & Coatings Association (NPCA) Hazardous Materials Identification System
IARC: International Agency for Research on Cancer developed by United Nations World Health Organisation (WHO)
ICAO-TI: Technical Instructions (TI) by the International Civil Aviation Organization (ICAO)
IUCLID: EU REACh International Uniform Chemical Information Database
IMDG: International Maritime Dangerous Goods; the principal international rules for International Carriage of Dangerous Goods by SEA under the Recommendations on the Transport of Dangerous Goods by United Nations (RTDG)
LC50/LD50: Lethal Concentration/Dose, 50 percent
N/a: Not available or Not applicable
NFPA: US National Fire Protection Association
NIOSH: US National Institute of Occupational Safety and Health
NLM TOXNET: US National Library of Medicine Toxicology Data Network
OSHA: US Occupational Safety and Health Administration
P: Marine Pollutant
RCRA: Resource Conservation and Recovery Act (USA)
REACh: EU Registry, Evaluation and Authorisation of Chemicals
SARA: US Superfund Amendments and Reauthorization Act
TEEL: Temporary Emergency Exposure Limit developed by US Subcommittee on Consequence Assessment and Protective Actions (SCAPA) of US Department of Energy (DOE)
TSCA: US Toxic Substance Control Act
ECHA: European Chemicals Agency's Dissemination portal with information on chemical substances registered under REACH
ACToR: US EPA Aggregated Computational Toxicology Resource
BCF: Bioconcentration Factor
CCRIS: US NLM TOXNET Chemical Carcinogenesis Research Information System
CHRIP: Japan NITE Information on Biodegradation and Bioconcentration of the Existing Chemical Substances in the Chemical Risk Information Platform
DSL: Canada Domestic Substance List

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SECTION 16: OTHER INFORMATION (CONTINUED)

ESIS: European Chemical Substances Information System
HSDB: US NLM TOXNET Hazardous Substances Databank
HSNO CCID: New Zealand Hazardous Substances and New Organisms Chemical Classification Information Database
IATA-DGR: Dangerous Goods Regulations (DGR) by the International Air Transport Association (IATA)
ICSC: International Chemical Safety Cards
Koc: Partition coefficient, soil Organic Carbon to water
NITE: National Institute of Technology and Evaluation, Japan
OECD: Organisation for Economic Co-operation and Development
RID: the Regulations Concerning the International Carriage of Dangerous Goods by Rail; published by the Central Office for International Carriage by Rail (OTIF)
RTDG: the Recommendations on the Transport of Dangerous Goods by United Nations (UN)
RTECS: US Registry of Toxic Effects of Chemical Substances
SIDS: OECD existing chemicals Screening Information Data Sets
SVHC: EU ECHA Substance of Very High Concern
TOXLINE: US NLM bibliographic database search system

SECTION 17: GC DISCLAIMER

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Product Name: EPOXY SUPER GLUE, PART B HARDENER

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Type: Epoxy Hardener
Product Name: **CLEAR PART B Polymide Blend**
Part Number(s): 10-100

Emergency Contact: Chemtrec
Phone: (800) 424-9300

SECTION 2: HAZARDS INGREDIENTS

· ***Hazard Classification***

GHS07

Skin Irrit. 2	*H315*	*Causes skin irritation.*
Eye Irrit. 2A	*H319*	*Causes serious eye irritation.*
Skin Sens. 1	*H317*	*May cause an allergic skin reaction.*
Aquatic Chronic 3	*H412*	*Harmful to aquatic life with long lasting effects.*

· ***Label Elements***

· ***GHS label elements*** *The substance is classified and labeled according to the Globally Harmonized System (GHS).*

· ***Pictogram(s)***

GHS07

· ***Signal Word*** *Warning*

· ***Hazard-determining Component(s)***
Triethylenetetramine

· ***Hazard statements***
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Harmful to aquatic life with long lasting effects.

· ***Precautionary statements***
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
Wear eye protection / face protection.
Avoid release to the environment.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see on this label).
Wash contaminated clothing before reuse.
If skin irritation or rash occurs: Get medical advice/attention.

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SECTION 2: HAZARDS INGREDIENTS (CONTINUED)

If eye irritation persists: Get medical advice/attention.
If on skin: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· ***Hazard Rating System***
· ***NFPA System***
· ***NFPA Ratings (scale 0 - 4)***

Health = 3
Fire = 1
Reactivity = 0

NFPA special hazards (water reactivity and oxidizing property): None

· ***HMIS System***
· ***HMIS Ratings (scale 0 - 4)***

Health = 3
Fire = 1
Reactivity = 0

· ***Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

· ***Chemical Characterization: Mixtures***

· ***Composition/Information on Ingredients***

68410-23-1	*Fatty acids, C18 unsatd., dimers, reaction products with polyethylenepolyamines* *Aquatic Acute 1, H400; Aquatic Chronic 1, H410* *Skin Irrit. 2, H315; Eye Irrit. 2A, H319*	*90-100%*

· ***Classification System:***
The Classifications were based on the Toxicological and Ecological Data of the substances/mixtures in the Section 11 and 12.

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SECTION 4: FIRST-AID MEASURES

· ***Description of First Aid Measures***

· ***General Information***
Ensure medical personnel are aware of exposure and take precautions for their personal protection; see Section 8 for the information of personal protection.

· ***After Inhalation***
Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing.
In case of unconsciousness place patient stably in side position for transportation.
If breathing is difficult, administer oxygen.
Seek immediate medical advice.

· ***After Skin Contact***
As quickly as possible remove contaminated clothing, shoes, and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Immediately flush with lukewarm water for 15 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard. If irritation persists, obtain medical advice.

· ***After Eye Contact***
Immediately rinse opened eyes for at least 15 minutes under running water.
Immediately remove contact lenses if present. Continue rinsing.
Do not put any ointments, oils or medication in eyes without specific instructions.
Seek immediate medical advice.

· ***After Swallowing***
If victim is unconscious; never give anything by mouth.
If victim is conscious; rinse out mouth and give victim small amounts of water.
Do NOT induce vomiting.
If vomiting occurs spontaneously, keep victim's head below hips to prevent aspiration of liquid into lungs.
Seek immediate medical advice.

· ***After Exposure*** *Get medical advice/attention at once.*

· ***Indication of any Immediate Medical Attention and Special Treatment Needed***
After frequent or high intense exposure, the following medical tests are recommended:
eye tests
skin tests
Check section 11 Toxicological Information for further relevant information.

· ***Information for Doctor*** *Have chemical containers, labels and/or (M)SDS ready when calling or visiting a medical center.*

· ***Additional Information***
For additional information, please consult the corresponding first aid measures in the most current version of Emergency Response Guidebook which is produced by the US Department of Transportation.

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SECTION 5: FIRE-FIGHTING MEASURES

· ***Extinguishing Media***

· ***Suitable Extinguishing Agent(s)***

Use fire fighting measures and extinguishing agents that suit the environment.
In case of fire, suitable extinguishing agents are:
Alcohol resistant foam.
Dry chemical or fire-extinguishing powder.
Carbon dioxide (CO_2).
Water spray or water fog.

· ***Unsuitable Extinguishing Agent(s)*** *No relevant information.*

· ***Firefighting Procedures***

Isolate fire and deny unnecessary entry.
Eliminate all ignition sources if safe to do so.
Do not extinguish fire unless flow can be stopped.
Fight fire remotely due to the risk of explosion.
Use water spray or water fog to cool fire-exposed containers.
Runoff from fire control or dilution water may be corrosive and/or toxic; protect personnel and minimize property damage.
Contain fire water runoff if possible to prevent environmental pollution.
Use water in flooding quantities as fog.
Fight fire from protected location or safe distance.
Contain fire water runoff if possible to prevent environmental pollution.

· ***Special Hazards Arising in Fire***

Will not burn unless preheated.
May evolve flammable hydrogen (H_2) in contact with metals when heated or in a fire.
In case of fire, following can be released:
May generate ammonia gas.
nitric acid
Carbon dioxide (CO_2) and Carbon monoxide (CO)
Nitrogen oxides

· ***Advice for Firefighters***

If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard (29 CFR 1910.156).
As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

· ***Additional Information*** *Ensure adequate and functional fire fighting facilities equipped in working area at all times.*

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SECTION 6: ACCIDENTAL RELEASE MEASURES

· **Personal Precautions**
Do not touch damaged containers or spills unless wearing appropriate protective equipment.
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.
Ensure personnel take precautions for their personal protection during clean up; see Section 8 for the specific requirements.

· **Environmental Precautions**
Keep away from sewage system or other water courses; do not penetrate ground/soil.
Inform respective authorities in case of any seepage to the environment.

· **Cleaning Up Methods**
Ensure adequate ventilation.
Eliminate all ignition sources.
Keep unauthorized personnel away.
For large spills:
Shut off source of leak if safe to do so.
Dike and contain.
Remove with vacuum trucks or pump to storage/salvage vessels.
Absorb residues with liquid-binding materials.
For small spills:
Ventilate and wash area after clean-up is complete.
Collect spills in suitable and properly labeled containers.
Do not use solvents unless following safe handling practices and within the recommended exposure guidelines.
Dispose contaminated chemicals as waste according to Section 13.

· **Additional Information** *No further relevant information.*

SECTION 7: HANDLING AND STORAGE

· **Precautions for Safe Handling**
Obtain special instruction before use; do not handle until all safety precautions have been read and understood.
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during handling.
Avoid any body contact of containers or contents unless wearing appropriate personal protective equipment.
Keep away from incompatible material(s).
Avoid any release into the environment.
Observe all the personal protection requirements in Section 8.

· **Information about Protection Against Explosions and Fires**
Will not burn unless preheated.
Keep away from heat, sparks, open flame and other ignition sources during handling.

· **Storage**

· **Requirements to be Met by Storerooms and Receptacles**
Store in a well-ventilated place; provide ventilation for receptacles.
Keep stored in accordance with local, regional, national, and international regulations.

· **Information about Storage in One Common Storage Facility**
Store away from incompatible material(s).
Store away from foodstuffs.
Avoid release to the environment.

· **Additional Information** *No further relevant information.*

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

· ***Engineering Measures or Controls***

· ***Exposure Limit Values that Require Monitoring at the Workplace***

The substance/mixture does not contain any relevant quantities of substances with critical values that have to be monitored at the workplace.

· ***Other Engineering Measures or Controls***

Ventilation rates should be matched to conditions.
If applicable, use process enclosure(s), local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

· ***Personal Protective***

· ***General Protective and Hygienic Measures***

Avoid any skin contact.
Do not eat, drink or smoke during work.
Avoid any contact with the eye.
Keep food, drink or feed away from working area.
Contaminated work clothing is not allowed out of workplace.
Clean hands and exposed skin thoroughly after work and before breaks.

· ***Personal Protective Equipment (PPE)***

· ***Breathing Equipment***

Caution! Improper use of respirators is dangerous.
In case of brief exposure or low pollution, use a respiratory filter device.
In case of intensive or longer exposure, use a positive-pressure respiratory protective device that is independent of circulating air.

· ***Hand Protection***

Protective gloves

Selection of glove material should take into consideration the penetration times, rates of diffusion, and the degradation.
Suggested glove type(s):
Nitrile Gloves
Butyl Rubber Gloves

· ***Eye Protection***

Brief or short term use: Tightly sealed goggles

Intensive or long term use: Tightly sealed goggles and Face Shields

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

· **Body Protection**

Intensive or long term use: Protective Clothing

Where the potential for over-exposure exists, the following protective work clothing is recommended:
Tychem® BR Coveralls
Responder® Coveralls
Trellchem® HPS and VPS Coveralls

· **Additional Information**
All protective clothing (suits, gloves, footwear, headgear) should be clean, available every day, and put on before work.
The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

· **Information on Basic Physical and Chemical Properties**	
· **Appearance:**	
· **Form:**	*Liquid*
· **Color:**	*Amber*
· **Odor:**	*Ammonia-like*
· **Odor Threshold:**	*Not determined.*
· **PH-Value:**	*8-8.5*
· **Change in Condition:**	
· **Melting Point:**	*Not determined.*
· **Boiling Point:**	*140-150 °C (284-302 °F)*
· **Flash Point:**	*266 °C (511 °F)*
· **Decomposition Temperature:**	*Not determined.*
· **Flammability:**	*Not determined.*
· **Explosion:**	*Not determined.*
· **Explosion Limits:**	
· **Lower:**	*1.1 Vol %*
· **Upper:**	*6.4 Vol %*
· **Vapor Pressure:**	*Not determined.*
· **Density at 20 °C (68 °F):**	*0.98 g/cm³ (8.178 lbs/gal)*
· **Solubility in or Miscibility with**	
· **Water:**	*Not miscible or difficult to mix.*
· **Viscosity at 25 °C (77 °F):**	*8.000-12.000 cP*
· **Dynamic:**	*Not determined.*
· **Kinematic:**	*Not determined.*
· **Additional Information**	*No further relevant information.*

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SECTION 10: STABILITY AND REACTIVITY

· ***Physical Hazard(s)*** *Not a regulated reactive or physical hazard under GHS.*

· ***Hazardous Reactivity and Chemical Stability*** *Stable under normal conditions of use, storage and temperatures.*

· ***Thermal Decomposition and Conditions to be Avoided***
Keep away from incompatible material(s).
Thermally decomposes during fire or high heat; keep away from heat, sparks, open flame and other ignition sources.

· ***Possibility of Other Hazardous Reaction(s)***
May react with nitrous acid or other nitrosating agents producing Nitrosamines, a known carcinogen.
No further relevant information available.

· ***Incompatible Material(s)***
acid chlorides, acid anhydrides, hypochlorites
Oxidizing agents
Strong reducing agents

· ***Hazardous Decomposition Product(s)***
Thermally decomposes during fire or very high heat. See Section 5 for fire hazards evolved during thermal decomposition.

· ***Hazardous Polymerization Product(s)*** *No relevant information.*

· ***Additional Information*** *No further relevant information.*

SECTION 11: TOXICOLOGICAL INFORMATION

· ***Acute Toxicity*** *LD50(rat):>8000 mg/kg ATE*

· ***Oral***

· ***Potential Health Effect(s):***
abnormal pain
shock or collapse
See acute inhalative effect(s) for further information

· ***Dermal*** *LD50(rabbit):>5000 mg/kg*

· ***Potential Health Effect(s):*** *See acute inhalative effect(s) for further information.*

· ***Inhalative***

· ***Potential Health Effect(s):***
While not possible to classify the acute inhalative hazard due to missing data, the product may cause the following symptom(s):
shortness of breath
sore throat
wheezing

· ***Skin Corrosion or Irritation*** *Rabbit/skin: severe irritation*

· ***Potential Health Effect(s):***
Causes severe skin burns and eye damage.
In contact with skin, may cause:
blister formulation
redness, pain and severe skin burns

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SECTION 11: TOXICOLOGICAL INFORMATION (CONTINUED)

· ***Eye Serious Damage or Irritation*** *Draize Test: Rabbit/Skin: severe irritation*
· ***Potential Health Effect(s):***
Causes serious eye damage.
In contact with eye, may cause:
decrease or loss of vision
redness, pain and severe deep burns
· ***Respiratory or Skin Sensitization***
· ***Potential Health Effect(s):***
May cause an allergic skin reaction.
No relevant information for respiratory sensitization; classification is not possible.

· ***OSHA-Ca (Occupational Safety & Health Administration)***
None of the ingredients is listed.

· ***Germ Cell Mutagenicity***
Triethylenetetramine has been found to be a direct-acting mutagen in the Ames assay. It gave positive resuls with and without activation.
· ***Carcinogenicity***
· ***Potential Health Effect(s):*** *Not a known Carcinogen.*
· ***Reproductive Toxicity***
Triethylenetetramine was fetotoxic and teratogenic when fed to rats in a 0.83% and 1.67% diet. When applied dermally to the skin of pregnant guinea pigs, there was a 90% abortion rate or death of fetus with secondary copper deficiency, resulting from the chelating activity of TETA.
· ***Potential Health Effect(s):*** *No further relevant information; classification is not possible.*
· ***Specific Target Organ Toxicity - Single Exposure***
· ***Potential Health Effect(s):*** *No further relevant information; classification is not possible.*
· ***Specific Target Organ Toxicity - Repeated Exposure***
· ***Potential Health Effect(s):*** *No further relevant information; classification is not possible.*
· ***Aspiration Hazard***
· ***Potential Health Effect(s):*** *No relevant information; classification is not possible.*
· ***Additional Information*** *No further relevant information.*

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Product Name: EPOXY SUPER GLUE, PART B HARDENER

SECTION 12: ECOLOGICAL INFORMATION

· ***Aquatic Environmental Toxicity***
LC50(fish)(96hr): 10-100mg/l
EC50(Daphnia magna)(24hr): 31.1mg/l
EC50(algae)(72hr): 10-100mg/l
· ***Aquatic Environmental Toxicity Assessment:*** *Harmful to aquatic life with long lasting effects.*
· ***Degradability and Stability*** *Not readily biodegradable (0% after 20 days)*
· ***Degradability and Bioaccumulation Assessment:***
Product not classified as Persistant, Bioaccumulative and Toxic.
Product not classified as very Persistant or very Bioaccumulative.

· ***Additional Information*** *No further relevant information.*

SECTION 13: DISPOSAL CONSIDERATIONS

· ***Hazardous Waste List***
· ***Description:***
The product has not been evaluated for its hazards when disposed as a waste by RCRA.
However, it is necessary to contain and dispose of the product as a hazardous waste based on the Hazard Identification in Section 2.

· ***Waste Treatment Recommendation:***
Generation of waste should be avoided or minimized wherever possible.
Chemical waste, even small quantities, is neither allowed to be poured down drains, sewage system or waterways; nor disposed with household garbage.
Dispose of contents/containers in accordance with local, regional, national, and international regulations.

· ***Unused and Uncontaminated Packagings***
· ***Recommendation*** *Dispose of according to your local waste regulations.*

SECTION 14: TRANSPORT INFORMATION

· ***UN-Number***	
· ***DOT, ADR, IMDG, IATA***	*UN3082*
· ***UN Proper Shipping Name***	*Environmentally hazardous substance, liquid, n.o.s. (Polyethylenepolyamines), 9,III*
· ***Transport hazard class(es)***	
· ***DOT***	
· ***Class***	*9 Miscellaneous dangerous substances and articles*

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www.gcelectronics.com

SDS Number: 106B
Revision Date: 02/27/2015
Supersedes Date: 02/31/2012

SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Name: EPOXY SUPER GLUE, PART B HARDENER

SECTION 14: TRANSPORT INFORMATION (CONTINUED)

· **ADR**

· **Class**	9 (M6) Miscellaneous dangerous substances and articles
· **Label**	9

· **IMDG, IATA**

· **Class**	9 Miscellaneous dangerous substances and articles
· **Label**	9
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	III
· **Environmental Hazards:**	Product contains environmentally hazardous substances: Fatty acids, C18 unsatd., dimers, reaction products with polyethylenepolyamines
· **Marine Pollutant:**	Yes Symbol (fish and tree)
· **Special Marking (ADR):**	Symbol (fish and tree)
· **Special Marking (IATA):**	Symbol (fish and tree)
· **Special Precautions:**	Warning: Miscellaneous dangerous substances and articles
· **Danger Code (Kemler):**	90
· **EMS Number:**	F-A,S-F
· **Segregation Groups**	Alkalis
· **Transport in Bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional Information:**	
· **DOT**	
· **Remarks:**	Special marking with the symbol (fish and tree).
· **ADR**	
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

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SECTION 14: TRANSPORT INFORMATION (CONTINUED)

· **IMDG**

· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN3082, Environmentally hazardous substances, liquid, n.o.s. (Polyethylenepolyamines), 9, III

SECTION 15: REGULATORY INFORMATION

· **USA Regulation Lists**

· **SARA (Superfund Amendments and Reauthorization Act of 1986)**

· **Section 302 (Extremely Hazardous Substances)**

None of the ingredients is listed.

· **Section 313 (Toxics Release Inventory (TRI) reporting)**

None of the ingredients is listed.

· **Section 311/312 (Hazardous Chemical Inventory Reporting)**

112-24-3	Triethylenetetramine	A	≤0.1%

· **Hazard Abbreviations for SARA 311/312**

A - Acute Health Hazard
C - Chronic Health Hazard
F - Fire Hazard
R - Reactive Hazard
S - Sudden Release of Pressure Hazard

· **TSCA (Toxic Substances Control Act)**

112-24-3	Triethylenetetramine

· **Proposition 65**

· **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.

· **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.

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SECTION 15: REGULATORY INFORMATION (CONTINUED)

· ***Carcinogenic Categories***

· ***EPA (Environmental Protection Agency)***

None of the ingredients is listed.

· ***IARC (International Agency for Research on Cancer)***

None of the ingredients is listed.

· ***NTP (National Toxicology Program)***

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.

· ***International Regulation Lists***

· ***Canadian Domestic Substance Listings:***

112-24-3	*Triethylenetetramine*

· ***Canadian Ingredient Disclosure list (limit 0.1%)***

112-24-3	*Triethylenetetramine*

· ***Canadian Ingredient Disclosure list (limit 1%)***

None of the ingredients is listed.

· ***Chinese Chemical Inventory of Existing Chemical Substances:***

112-24-3	*Triethylenetetramine*

· ***Japanese Existing and New Chemical Substance List:***

112-24-3	*Triethylenetetramine*

· ***Korean Existing Chemical Inventory:***

112-24-3	*Triethylenetetramine*

· ***European Pre-registered substances:***

112-24-3	*Triethylenetetramine*

· ***REACh - Substances of Very High Concern (SVHC) List:***

None of the ingredients is listed.

· ***Restriction of Hazardous Substances Directive (RoHS) list:***

None of the ingredients is listed.

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SECTION 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.

· ***Department Issuing (M)SDS:*** *Product Safety Department*
· ***Contact:*** *msds@resinlab.com*

· ***Abbreviations and acronyms:***
ACGIH: American Conference of Governmental Industrial Hygienists
ACToR: US EPA Aggregated Computational Toxicology Resource
ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road
BCF: Bioconcentration Factor
CAS: Chemical Abstracts Service (division of the American Chemical Society)
CCRIS: US NLM TOXNET Chemical Carcinogenesis Research Information System
CHRIP: Japan NITE Information on Biodegradation and Bioconcentration of the Existing Chemical Substances in the Chemical Risk Information Platform
DOT: US Department of Transportation
DSL: Canada Domestic Substance List
ESIS: European Chemical Substances Information System
HMIS: US National Paint & Coatings Association (NPCA) Hazardous Materials Identification System
HSDB: US NLM TOXNET Hazardous Substances Databank
HSNO CCID: New Zealand Hazardous Substances and New Organisms Chemical Classification Information Database
IARC: International Agency for Research on Cancer developed by United Nations World Health Organisation (WHO)
IATA-DGR: Dangerous Goods Regulations (DGR) by the International Air Transport Association (IATA)
ICAO-TI: Technical Instructions (TI) by the International Civil Aviation Organization (ICAO)
ICSC: International Chemical Safety Cards
IMDG: International Maritime Dangerous Goods; the principal international rules for International Carriage of Dangerous Goods by SEA under the Recommendations on the Transport of Dangerous Goods by United Nations (RTDG)
Koc: Partition coefficient, soil Organic Carbon to water
LC50/LD50: Lethal Concentration/Dose, 50 percent
N/a: Not available or Not applicable
NFPA: US National Fire Protection Association
NIOSH: US National Institute of Occupational Safety and Health
NITE: National Institute of Technology and Evaluation, Japan
OECD: Organisation for Economic Co-operation and Development
OSHA: US Occupational Safety and Health Administration
P: Marine Pollutant
RCRA: Resource Conservation and Recovery Act (USA)
REACh: EU Registry, Evaluation and Authorisation of Chemicals
RID: the Regulations Concerning the International Carriage of Dangerous Goods by Rail; published by the Central Office for International Carriage by Rail (OTIF)
RTDG: the Recommendations on the Transport of Dangerous Goods by United Nations (UN)
RTECS: US Registry of Toxic Effects of Chemical Substances
SARA: US Superfund Amendments and Reauthorization Act
SIDS: OECD existing chemicals Screening Information Data Sets
SVHC: EU ECHA Substance of Very High Concern
TEEL: Temporary Emergency Exposure Limit developed by US Subcommittee on Consequence Assessment and Protective Actions (SCAPA) of US Department of Energy (DOE)
TOXLINE: US NLM bibliographic database search system
TSCA: US Toxic Substance Control Act

· ***Date of preparation / last revision*** *02/13/2015 / 4*