



DISCLAIMER: The information herein relates to the product named and is based upon information ALFA INTERNATIONAL CORPORATION considers accurate. No warranty expressed or implied is intended. This information is offered solely for your consideration and interpretation. The Corporate Safety and Environmental Affairs Department is responsible for the preparation of this Material Safety Data Sheet.

MATERIAL SAFETY DATA SHEET**Alfa International Corp.****E10-108 Part A****MSDS Number: 601****MSDS Date: 8/17/06****SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: E10-108 Part A

MANUFACTURER: Alfa International Corp.
ADDRESS: 32 Mechanic Ave., Unit 99, Woonsocket, RI 02895

EMERGENCY PHONE: 866-353-2532
CHEMTREC PHONE: 800-424-9300
OTHER CALLS: 401-765-0503
FAX PHONE: 401-765-0508

CHEMICAL NAME: Silver Filled Bisphenol A / Epichlorohydrin Based Epoxy Resin

PRODUCT USE: Epoxy Resin
PREPARED BY: Alfa International

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	% WT	EXPOSURE LIMIT	OSHA PEL	VP
Bisphenol-A-(Epichlorohydrin); Epoxy Resin	25068-38-6	<20%	-	-	
Polymer of epichlorohydrin-polyglycol	41638-13-5	<5%	-	-	
Silver	7440-22-4	>75%	1 mg/m3	0.01 mg/m3	0

SECTION 3: HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW:**

Human Health Hazards: May be irritating to the eyes and skin. Contact with hot material can cause thermal burns. And also may cause skin sensitization.

Safety Hazards: Material will not burn unless preheated.

SECTION 4: FIRST AID MEASURES

EYE CONTACT: Flush eye with water. And rest eye for 30 minutes. If redness, burning, blurred vision or swelling persists, consult a physician.

SKIN CONTACT: In case of contact with hot product, immediately flood the affected area with cold water. Wipe excess material from exposed area. Flush exposed skin with water and follow by washing with soap if available. Carefully remove clothing; if clothing is stuck to a burn area do not pull it off, but cut around it. Cover burn area with a clean material. Transport to nearest medical facility for additional treatment.

INGESTION: Do not induce vomiting. Have victim rinse out mouth with water, then drink sips of water to remove taste from mouth. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical advice. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide.

SPECIAL HAZARDS DURING FIRE FIGHTING:

Material will not burn unless preheated. So, clear fire area of all non-emergency personnel. Cool fire exposed containers with water. Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:

Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber-boots) Including a positive pressure NIOSH approved self-contained breathing apparatus

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

May burn although not readily ignitable.
Use cautious judgment when cleaning up large spills.
Shut off leaks, if possible without personal risk.

ENVIRONMENTAL PRECAUTIONS:

Dike and contain.
Contain run-off and dispose of properly.
Remove contaminated soil to remove contaminated trace residues.
Prevent from entering into drains, ditches or rivers.

CLEAN-UP METHODS – SMALL SPILLAGE:

Soak up with an absorbent such as clay, sand or other suitable material.
Place in non-leaking container.
Seal tightly for proper disposal.

CLEAN-UP METHODS – LARGE SPILLAGE:

Remove with vacuum trucks or pump to storage/salvage vessels.
Soak up residue with an absorbent such as clay, sand or other suitable material; place in non-leaking containers for proper disposal.
Flush area with water to remove trace residue.

ADDITIONAL ADVICE:

Notify authorities if any exposures to the general public or environment occurs or is likely to occur.
See Section 13 for information on disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING:

Avoid prolonged or repeated contact with skin, eyes and clothing. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. **WARNING!** May cause skin and eye irritation. May cause skin sensitization. This resin may be handled, shipped and stored at elevated temperature in bulk. The recommended pumping temperature is 180 Degrees Fahrenheit. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse. To prevent thermal burns avoid contact with hot product.

STORAGE:

Store in a cool, dry place with adequate ventilation. Keep containers closed when not in use. Keep away from open flames and high temperatures.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE MEASURES: Wear protective clothing specified for normal operations.

EYE PROTECTION:

Avoid contact with eyes.
Wear chemical goggles if there is potential contact with eyes.
Use Safety spectacles.

HAND PROTECTION:

Butyl
EVAL-Laminate

SKIN AND BODY PROTECTION:

Wear chemical-resistant gloves and other clothing as required to minimize contact.

RESPIRATORY PROTECTION:

No respiratory protection is usually required under normal conditions of use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear

PHYSICAL STATE: Viscous Liquid

BOILING POINT:
F: >500
C: >260

FLASH POINT:
F: 480
C: 249

VAPOR PRESSURE: 0.03 mbar
@ F: 171
C: 77

RELATIVE DENSITY: 3.6

SOLUBILITY IN WATER: Negligible

SECTION 10: STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Avoid high temperatures.

INCOMPATIBILITY (MATERIAL TO AVOID):

Can react vigorously with strong oxidizing agents, strong Lewis or mineral acid, and strong mineral and organic bases.
Avoid contact with water or liquids.
Do not allow molten product to contact water or other liquids.
This can cause violent eruptions, splatter hot material, or ignite flammable material.
Reaction with some curing agents may produce considerable heat and possible violent decomposition.

HAZARDOUS REACTIONS:

Stable under normal use conditions.
Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY: LD50 – Low toxicity, LD50 > 2000 mg/kg.

ACUTE DERMAL TOXICITY: LD50 – Low toxicity, LD50 > 2000 mg/kg.

SENSITIZATION: May cause skin sensitization.

CARCINOGENICITY: Recent 2-year bioassays in rats and mice exposed by the dermal route to the diglycidyl ether of bisphenol A (BADGE) yielded no evidence of carcinogenicity to the skin or any other organs. This study clarifies prior equivocal results from a 2-year mouse skin painting study, which were suggestive, but not conclusive, for weak carcinogenic activity. **Note:** Diglycidyl ether of bisphenol A (BADGE) is a component in all BPA/ECH based epoxy resins.

MUTAGENICITY: Resins of this type, liquid resins based on diglycidyl ether of bisphenol A have proved to be inactive when tested by in vivo mutagenicity assays. These resins have shown activity in in-vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells. The significance of these tests to man is unknown.

POTENTIAL HEALTH EFFECTS

Inhalation: Not expected to be a relevant route of exposure, however, under conditions where exposure to vapors or mists is possible, could cause respiratory tract irritation.

Skin: May be mildly irritating to the skin.
Contact with hot material can cause thermal burns which may result in permanent damage.
And also may cause skin sensitization.

Eyes: May be mildly irritating to the eyes.
Contact with hot material can cause thermal burns which may result in permanent damage or blindness.

Ingestion: Not likely to be a relevant route of exposure.

SECTION 12: ECOLOGICAL INFORMATION

BIODEGRADABILITY: This section will be updated as ecological reviews are completed.

ECOTOXICITY: This section will be updated as ecological reviews are completed.

SECTION 13: DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL: If this material becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261).
Place in an appropriate disposal facility in compliance with local and federal regulations.

SECTION 14: TRANSPORT INFORMATION

CFR_ROAD NOT REGULATED FOR TRANSPORT
IATA_C NOT REGULATED FOR TRANSPORT
IMDG NOT REGULATED FOR TRANSPORT
CFR_RAIL NOT REGULATED FOR TRANSPORT

SECTION 15: REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

NOTIFICATION STATUS

AICS: y
DSL: y
INV (CN): y
ENCS (JP): y
TSCA: y
EU NLP: y
KECI (KR): y
PICCS (PH): y

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) No RQ

SARA 311/312 Hazards

Hazard Chronic Health

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III**Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required**

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) No De minimis
Concentration

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III**Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)**

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) Threshold Planning
Quantity: No TPQ

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) Reportable quantity:
No RQ

New Jersey Right-To-Know Chemical List

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) Not Listed

Additional Components Not Found In Section 2:

Components	CAS-No.	Concentration	Remarks
Phenyl Glycidyl Ether	122-60-1	< 6 PPM	Not Listed

Pennsylvania Right-To-Know Chemical List

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)

Not Listed

Additional Components Not Found In Section 2:

Components	CAS-No.	Concentration	Remarks
Phenyl Glycidyl Ether	122-60-1	< 6 PPM	Not Listed

Massachusetts Right-To-Know Chemical List

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)

Not Listed

Additional Components Not Found In Section 2:

Components	CAS-No.	Concentration	Remarks
Phenyl Glycidyl Ether	122-60-1	< 6 PPM	Not Listed

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**Additional Components Not Found In Section 2:**

Components	Concentration	Regulation	Value	Remarks
Phenyl Glycidyl Ether	< 6 PPM	US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)	Listed: 10/1/1990	Carcinogenic

HMIS Rating: Health: 2
 Fire: 1
 Reactivity: 0

SECTION 16: OTHER INFORMATION**REFERENCE:** Prepared in accordance with 29 CFR 1910.1200.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

MATERIAL SAFETY DATA SHEET

Alfa International Corp.

E10-108 Part B

MSDS Number: 601-B

MSDS Date: 8/17/06

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: E10-108 Catalyst

MANUFACTURER: Alfa International Corp.
ADDRESS: 32 Mechanic Ave., Unit 99, Woonsocket, RI 02895

EMERGENCY PHONE: 866-353-2532
CHEMTREC PHONE: 800-424-9300
OTHER CALLS: 401-765-0503
FAX PHONE: 401-765-0508

CHEMICAL NAME: Triethylenetetramine
CHEMICAL FAMILY: Aliphatic Amines

PRODUCT USE: Curing Agent (Hardener)
PREPARED BY: Alfa International

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>
1 Fatty Acid Polyamides	68410-23-1	>84%	
2 Triethylenetetramine (TETA)	112-24-3	<16%	

SECTION 3: HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYE CONTACT: Product may be extremely irritating to the eyes and may cause severe damage including blindness. Vapors may be irritating.

SKIN CONTACT: Product may be mildly irritating to the skin. Product may cause skin sensitization.

INHALATION: Mists or vapors may produce severe respiratory irritation.

INGESTION: Not expected to be a relevant route of exposure, however, product may produce irritation of mouth and throat and the gastrointestinal tract.

SIGNS AND SYMPTOMS: Irritation as noted above. Skin sensitization (allergy) may be evidenced by rashes, especially hives.

AGGRAVATED MEDICAL CONDITIONS: Preexisting skin, eye and respiratory disorders may be aggravated by exposure to this product.

SECTION 4: FIRST AID MEASURES

- EYE CONTACT:** Immediate flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Rinse continuously with water while on way to get medical attention.
- SKIN CONTACT:** Remove contaminated clothing or shoes. Wipe excess from skin and flush with plenty of water for at least 15 minutes. Use soap if available or follow by washing with soap and water. Do not reuse clothing until thoroughly cleaned. Get medical attention.
- INHALATION:** Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.
- INGESTION:** Do not induce vomiting. Give one glass of water unless victim is drowsy, convulsing or unconscious. Seek medical attention.
- Triethylenetetramine (TETA) has been found to be a direct acting mutagen in the Ames Assay. It gave positive results with and without activation.
 - TETA was fetotoxic and teratogenic when fed to rats at 0.83% and 1.67% of diet. When applied dermally to the skin of pregnant guinea pigs, there was a 90% abortion rate or death of fetus with secondary to copper deficiency resulting from the chelating activity of TETA.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

Application of corticosteroid cream has been effective in treating skin irritation.

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT AND METHOD: >428° F (220° C) (COC)

FLAMMABLE LIMITS/PERCENT VOLUME IN AIR: Lower: N/APP Upper: N/APP

EXTINGUISHING MEDIA: Use water fog, "alcohol" foam, dry chemical or CO₂. Do not use a direct stream of water. Product will float. Water or foam may cause frothing which can be violent, especially sprayed into containers of hot or burning liquid.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:

- Material will not burn unless preheated. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

FURTHER INFORMATION: Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: REACTIVITY

STABILITY: Stable **HAZARDOUS POLYMERIZATION:** Will not occur

CONDITIONS AND MATERIALS TO AVOID: Avoid contact with strong oxidizing agents. Reaction with epoxy resins can produce considerable heat.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides, carbon monoxide and unidentified organic compounds (some containing nitrogen) may be formed during thermal or oxidative decomposition or combustion

SECTION 7: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

RESPIRATORY PROTECTION:

- Avoid breathing vapors/mists. Use a NIOSH-approved respirator as required to prevent overexposure. In accord with 29 CFR 1910.134, use either a full-face, atmosphere-supplying respirator or an air-purifying respirator for organic vapors. Avoid breathing vapors which may be produced under some conditions such as heating or applications of uncured material in large surface areas (e.g., flooring and painting). Avoid breathing aerosols and mists which may be formed by various methods of application.

PROTECTIVE CLOTHING:

- Do not get in eyes. Wear chemical goggles if there is potential contact with eyes. Avoid contact with skin and clothing. Wear chemical-resistant gloves and protective clothing.

ADDITIONAL PROTECTIVE MEASURES:

- Use ventilation as required to control vapor concentrations. Eye wash fountains and safety showers should be available for emergency use.

ENVIRONMENTAL PRECAUTIONS:

SPILL OR LEAK PROCEDURES:

- Triethylenetetramine (TETA) is resistant to biodegradation in biological wastewater treatment plants. It could be toxic to the biomass in a treatment plant and could be toxic to fish. May burn although not readily ignitable. Use cautious judgement when cleaning up large spills.
- **Large Spills:**
Wear respirator and protective clothing as appropriate. Shut off source of leak if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material; dispose of properly. Flush area with water to remove trace residue.
- **Small Spills:**
Take up with an absorbent material and dispose of properly.

WARNING:

- Extremely irritating to the eyes. May cause skin and respiratory tract irritation. May cause skin sensitization. Containers, even those that have been emptied, can contain hazardous product residues. Wash with soap and water before eating, drinking, smoking, applying cosmetics or using toilet facilities. Launder contaminated clothing before reuse. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed.
- Heating this curing agent in the presence of air may cause thermal and oxidative decomposition. With some epoxy resins, it may produce exothermic reactions which in large masses can cause runaway polymerization and charring of the reactants. Fumes and vapors from these thermal and chemical decompositions vary widely in composition and toxicity. Do not breath fumes. Use a NIOSH-approved respirator as required to prevent overexposure. In accord with 29 CFR 1910.134, use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.
- Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Do not pressurize drum containers to empty them.

SECTION 8 - TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION (DOT) CLASSIFICATION:

Class: 8

UN I.D. # UN2259

Packing Group: II

SECTION 9: HANDLING AND STORAGE

HANDLING: Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancercausing nitrosamines could be formed. Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid breathing vapors and/or aerosols. Avoid contact with eyes. Use only in well-ventilated areas. Use personal protective equipment. When using, do not eat, drink or smoke.

STORAGE: Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place.

TECHNICAL MEASURES & PRECAUTIONS: Do not store in reactive metal containers.

SECTION 10: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES: Provide readily accessible eye wash stations and safety showers.
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:
Respiratory protection -- Wear appropriate respirator when ventilation is inadequate.
Hand protection -- Neoprene gloves, butyl-rubber, nitrile rubber, impervious gloves. The breakthrough time of the selected glove(s) must be greater than the intended use period.

EYE PROTECTION: Full face shield with goggles underneath.
Chemical resistant goggles must be worn.

SKIN AND BODY PROTECTION: Impervious clothing.
Full rubber suit (rain gear).
Rubber or plastic boots.
Long sleeve shirts and trousers without cuffs.
Slicker suit.

ENVIRONMENTAL EXPOSURE CONTROLS: Construct a dike to prevent spreading.

SPECIAL INSTRUCTIONS FOR PROTECTION AND HYGIENE:
Discard contaminated leather articles. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Provide readily accessible eye wash stations and safety showers. Wash at the end of each workshift and before eating, smoking or using the toilet.

EXPOSURE LIMIT(S):

Triethylenetetramine	Time Weighted Average (TWA): WEEL	1 ppm	6 mg/m ³
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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Amber

ODOR: Fishy

PHYSICAL STATE: Liquid

pH: Alkaline

BOILING POINT:

F: 531
C: 277

FLASH POINT:

C: >115.56

VAPOR PRESSURE (mmHg): <0.01 mmHG

@ F: 70
C: 21

RELATIVE VAPOR DENSITY: 5.61

DENSITY: 0.98 g/cm³ (61.179 lb/ft³)

@ F: 70
C: 21

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (con't)

SOLUBILITY IN WATER: Completely soluble.

MOLECULAR WEIGHT: 146 g/mol

VISCOSITY: 20 mPa.s
@ F: 77
C: 25

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

MATERIALS TO AVOID: Sodium hypochlorite.
Organic acids (i.e. acetic acid, citric acid etc.).
Mineral acids.
Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.
Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.
CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations.
Nitrous acid and other nitrosating agents.
Oxidizing agents.

Hazardous decomposition products: Nitric acid.
Ammonia.
Nitrogen oxides (NOx).
Nitrogen oxide can react with water vapors to form corrosive nitric acid.
Carbon monoxide, Carbon dioxide.
Nitrosamine.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE HEALTH HAZARD:

Ingestion: **LD50:** 2,500 mg/kg
Species: Rat

Inhalation: No data is available on the product itself.

Skin: **LD50:** 805 mg/kg
Species: Rabbit

EYE IRRITATION/CORROSION: Severe eye irritation.

ACUTE DERMAL IRRITATION/CORROSION: Severe skin irritation.

SENSITIZATION: May cause sensitization by skin contact. Sensitization has occurred in laboratory animals after repeated exposures.

CHRONIC HEALTH HAZARD: Results from a battery of short term genotoxicity tests on this material or its components indicate mutagenic activity.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY EFFECTS:

Aquatic toxicity: No data is available on the product itself.
Toxicity to other organisms: No data available.

PERSISTENCE AND DEGRADABILITY:

Mobility: No data available.
Bioaccumulation: No data is available on the product itself.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE FROM RESIDUES / UNUSED PRODUCTS: Contact supplier if guidance is required.

CONTAMINATED PACKAGING: Dispose of container and unused contents in accordance with federal, state, and local requirements.

SECTION 14: TRANSPORT INFORMATION

CFR

Proper Shipping Name: Triethylenetetramine

Class: 8

UN/ID No.: UN2259

Packing Group: II

IATA

Proper Shipping Name: Triethylenetetramine

Class: 8

UN/ID No.: UN2259

Packing Group: II

IMDG

Proper Shipping Name: Triethylenetetramine

Class: 8

UN/ID No.: UN2259

Packing Group: II

CTC

Proper Shipping Name: Triethylenetetramine

Class: 8

UN/ID No.: UN2259

Packing Group: II

SECTION 15: REGULATORY INFORMATION

Country	Regulatory List	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification:

Acute Health Hazard Chronic Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level:

None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

WHMIS Hazard Classification

Toxic Material Causing Immediate and Serious Toxic Effects, Toxic Material Causing Other Toxic Effects, Corrosive Material.

SECTION 16: OTHER INFORMATION

HMIS RATING:

Health: 3
Flammability: 1
Physical hazard: 0
Prepared by: Alfa International Corp.

SECTION 17- SARA TITLE III INFORMATION

PRODUCT	EHS RQ *1	EHS TPQ *2	SEC-313 *3	313 CATEGORY *4	311/312 CATEGORY *5
Epi-Cure 3140 Curing Agent				H-1	

- *1 = Reportable Quantity of Extremely Hazardous Substance, SEC 302
- *2 = Threshold Planning Quantity, Extremely Hazardous Substance, SEC 302
- *3 = Toxic Chemical SEC 313
- *4 = Category as required by SEC 313 (40 CFR 372.65 C), must be used on toxic release inventory form
- *5 = Category (for aggregate reporting requirements under SARA 311, 312)
- Health: H-1 = Immediate (Acute) Health Hazard
- H-2 = Delayed (Chronic) Health Hazard
- Physical: P-3 = Fire Hazard
- P-4 = Sudden Release of Pressure Hazard
- P-5 = Reactive Hazard

SECTION 18- ENVIRONMENTAL RELEASE INFORMATION

Triethylenetetramine (TETA) is resistant to biodegradation in biological wastewater treatment plants. It could be toxic to the biomass in a treatment plant and could be toxic to fish. Keep out of surface waters, sewers and waterways entering or leading to surface waters. Notify authorities if any exposure to the general public or environment occurs or is likely to occur.

EPA - COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (EPA-CERCLA). Under EPA-CERCLA ("Superfund"), releases to air, land or water may be reportable to the national response center, 800-424-8802 (circumstances surround the release and cleanup determine reportability).

SECTION 19 - RCRA INFORMATION

Place in an appropriate disposal facility in compliance with local regulations.