

SAFETY DATA SHEET

SECTION 1: Identification

- 1.1 GHS product identifier: ET02 A
1.2 Other means of identification: Epoxy Resin
1.3 Recommended use of the chemical and restrictions on use: N/A
1.4 Supplier's details:
Aerospace Composite Products
78 Lindbergh Ave
Livermore CA 94551
INFORMATION PHONE NUMBER: 925-443-5900
- 1.5 Emergency phone number: 682-232-4788

SECTION 2.0: Hazard(s) identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

2.1 Classification of the substance or mixture:

Health
Skin Corrosion/Irritation, Category 2
Eye Damage/Irritation, Category 2
Skin Sensitizer, Category 1

2.2 GHS label elements:



Signal word: Warning

Hazard statements:

H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements:

Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/eye protection/face protection.

Response:

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container in accordance with local, regional and international regulations.

Supplemental information: No Additional Information

Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) - Annex III. Regulations in individual countries/regions may determine which statements are required on the product label. See product label for specifics.

2.3 Other hazards which do not result in classification: N/A

2.4 Hazards Material Information System (United States):

Health	2
Flammability	1
Physical Hazard	0

Hazard Codes: 0=Chronic Hazard 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

SECTION 3: Composition/information on ingredients

Chemical Identity.	CAS No	Concentration
Phenol, 4,4'-(1-methylethylidene)bis, polymer with (chloromethyl)oxirane	25085-99-8	5-95%
Alkyl (C12-14) glycidyl ether	68609-97-2	5-95%
Hydrated Alumina	21645-51-2	5-95%
Carbon Black	1333-86-4	1-5%

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures:

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Inhalation: Move effected persons to fresh air; if effects occur, consult a physician.

Skin Contact: Continued and thorough washing in flowing water for at least 15 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential. Wash clothing before reuse. Destroy contaminated leather items.

Eye Contact: Wash immediately and continuously with flowing water for at least 15 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.

Ingestion: If swallowed, call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by a physician or medical personnel. Do not give anything by mouth to an unconscious person. Note to Physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

4.2 Most Important symptoms/effects, acute and delayed:

Signs and Symptoms of Exposure (Acute Effects): Contact with eyes may cause mild irritation and discomfort. Contact with skin causes irritation, redness and discomfort which is transient. Inhalation of mists may cause irritation in the respiratory tract. Inhalation of vapors from heated materials may cause irritation in the respiratory tract. Coughing and chest pain may result. Signs and Symptoms of Exposure (Possible Longer Term Effects): Repeated and/or prolonged exposure may cause allergic reaction/sensitization. Repeated and/or prolonged exposures may result in: adverse skin effects (such as rash, irritation or corrosion). Medical Conditions Generally Aggravated by Exposure: Skin disorders and Allergies Carcinogens under OSHA, ACGIH, NTP, IARC, Other: This product contains no known or suspected carcinogens in concentrations of 0.1 percent or greater.

4.3 Indication of immediate medical attention and special treatment needed, if necessary: N/A

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media:

Water fog or fine spray. Carbon dioxide. Alcohol resistant foam. Dry chemical fire extinguishers.

5.2 Specific hazards arising from the chemical:

Flash point is Not Determined. May generate toxic or irritating combustion products. Sudden reaction and fire may occur if product is mixed with an oxidizing agent.

5.3 Special protective actions for fire-fighters:

Wear positive-pressure self-contained breathing apparatus and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots and gloves.)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear adequate personal protective equipment; see Section 8-EXPOSURE CONTROLS/PERSONAL PROTECTION.

6.2 Methods and materials for containment and clean up:

Large spills: Contain with dike. Pump into suitable and properly labeled containers.

Small spills: Dilute with water and recover or use non-combustible absorbent material/sand and shovel into appropriate containers.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Avoid contact with skin or eyes. Avoid breathing of vapors. Handle in well-ventilated workspace. When handling, do not eat, drink, or smoke. Other Precautions: Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations (e.g. OSHA).

7.2 Conditions for safe storage, including any incompatibilities: Keep away from: oxidizers. Keep in cool, dry, ventilated storage areas and in closed containers.

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Chemical Identity.	CAS No	Exposure Limits	Source
Hydrated Alumina	21645-51-2	10 mg/m ³ TWA Inhalable	ACGIH
Carbon Black	1333-86-4	3.5 mg/m ³ TWA Inhalable	ACGIH

8.2 Appropriate engineering controls: No specific controls needed.

8.3 Individual protection measures, such as personal protective equipment:

Eye Protection: Chemical safety glasses. A full-face shield and vapor respirator is recommended for operations involving spraying or other operations placing this material under pressurized conditions.

Hand Protection: Neoprene rubber gloves. Impermeable gloves. Nitrile rubber gloves. The breakthrough time of the selected glove(s) must be greater than the intended use period.

Respiratory Protection: Not required under normal conditions and in a well-ventilated workplace. At elevated temperatures, a cartridge mask National Institute for Occupational Safety and Health (NIOSH) approved for organic vapors may be appropriate. Protective Clothing: Long sleeved clothing.

Work and Hygienic Practices: Provide readily accessible eye wash stations and safety showers. Wash at the end of each work shift and before eating, smoking or using the toilet.

Notice: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

SECTION 9: Physical and chemical properties

9.1 Appearance (physical state, color, etc.): Black Liquid

9.2 Odor: Epoxy Odor

9.3 Odor threshold: N/A

9.4 pH: Not Determined

9.5 Melting point/freezing point: Not Determined

9.6 Initial boiling point and boiling range: Not Determined

9.7 Flash Point: >250f

9.8 Evaporation rate: N/A

9.9 Flammability (solid, gas): N/A

9.10 Upper/lower flammability or explosive limits: LFL-Not Determined; UFL-Not Determined

9.11 Vapor pressure: Not Determined

9.12 Vapor Density: N/A

9.13 Relative density(Specific Gravity): 1.35

9.14 Solubility(ies): Liquid Components are Not Readily Soluble in Water

9.15 Partition coefficient; n-octanol/water: N/A

9.16 Auto-ignition temperature: >300°C

9.17 Decomposition temperature: N/A

9.18 Viscosity: N/A

9.19 % Volatile (VOC): 0g/L

SECTION 10: Stability and reactivity

10.1 Reactivity: N/A

10.2 Chemical stability: Stable

10.3 Possibility of hazardous reactions: Will not occur

10.4 Conditions to avoid: N/A

10.5 Incompatible materials: Avoid strong acids, bases, and oxidizing agents. Avoid contact with amines

10.6 Hazardous decomposition products: Carbon Monoxide in a fire. Carbon Dioxide in a fire. Irritating and toxic fumes at elevated temperatures.

SECTION 11: Toxicological information

11.1 Likely routes of exposure: Eye Contact, Skin Contact, Ingestion.

11.2 Symptoms related to the physical, chemical and toxicological characteristics:

Ingestion: This material has a low potential for toxic effects due to ingestion.

Skin Contact: Prolonged or widespread skin contact is not likely to cause toxic effects.

Irritation:

Skin: Skin contact has caused allergic skin reactions in certain sensitized individuals.

Eyes: May cause slight temporary eye irritation with local redness. Mechanical irritation possible due to solid filler materials.

Inhalation: May cause allergic respiratory response upon exposure to heated vapors.

11.3 Delayed and immediate effects and also chronic effects from short and long term exposure:

Carcinogen: This material contains no known or suspected carcinogens in levels above 0.1%.

Mutagen: This material contains no known or suspected mutagens in levels above 0.1%.

Reproductive Hazard: This material contains no materials known or suspected to cause reproductive hazards in levels above 0.1%.

11.4 Numerical measures of toxicity:

This finished product has not been tested to determine individual toxicological/ecological limits. Individual components of this mixture have been independently tested by the raw material manufacturers and any known results have been presented below. The results for the individual components may not be representative of the toxicity of this finished product.

Ingredient Name	CAS No.	Test	Result	Route	Species
Phenol, 4,4'-(1-methylethylidene)bis, polymer with (chloromethyl)oxirane	25085-99-8	LD50 LD50	11,400 mg/kg > 2000 mg/kg	Oral Dermal	Rat Rabbit
Alkyl (C12-14) glycidyl ether	68609-97-2	LD50 LD50	17100 mg/kg > 4.5 mL/kg	Oral Dermal	Rat Rabbit
Hydrated Alumina	21645-51-2	LD50	> 5000 mg/kg	Oral	Rat
Carbon Black	1333-86-4	LD50	> 8000 mg/kg	Oral	Rat

SECTION 12: Ecological information

12.1 Ecotoxicity:

No ecological testing has been conducted on this product.

12.2 Persistence and degradability:

This material contains components that show little or no evidence of biodegradability. Caution should be taken to prevent release to the environment. See Section 13 for further information.

Degradation: Based on the stringent OECD test guidelines, this material cannot be considered as readily

biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

12.3 Bioaccumulative potential: N/A

12.4 Mobility in soil: N/A

12.5 Other adverse effects: N/A

SECTION 13: Disposal considerations

13.1 Disposal methods:

Preferred method of disposal includes incineration under controlled conditions in accordance with all local and national laws and regulations. The generation of waste should be avoided or minimized wherever possible. Untreated material is not suitable for disposal. Waste, even small quantities, should never be poured down drains, sewers or watercourses. Waste must be disposed of in accordance with federal, state and local environmental control regulations. This material, when properly mixed and cured with its hardener component at the proper mix ratio, may be safely landfilled. Contaminated packaging: Empty containers can only be disposed of when the remaining product adhering to the container walls has been removed. Hazard warning labels should be removed from the container only after it has been properly emptied.

SECTION 14: Transport information

14.1 UN number: Not Regulated

14.2 UN proper shipping name: Liquid Plastic, NOI

14.3 Transport hazard class(es): Not Regulated

14.4 Packing group, if applicable: Not Regulated

14.5 Environmental hazards: N/A

14.6 Transport in bulk: N/A

14.7 Special precautions for user: N/A

Notes: For surface shipments within the United States: Not regulated

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations:

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Acute health hazard. Chronic health hazard

313 REPORTABLE INGREDIENTS: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: None

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: For this/these chemicals, release of more than the Reportable Quantity to the environment in a 24-hour period requires notification to the National Response Center (800-424-8802 or 202-426-2675): None

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: This product or its components are listed in or exempt from the TSCA inventory requirements.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) 29 CFR1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: None of the chemicals in this product are considered highly hazardous by OSHA.

CALIFORNIA PROPOSITION 65: This product contains chemical(s) which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5): None

OSHA HAZARD COMM. RULE: The contents of the MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200

Canada regulations/legislation:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Canadian Workplace Hazardous Material Information System (WHMIS) classification: D2B

SECTION 16: Other information

Users Responsibility/Disclaimer of Liability:

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK. END OF DATA SHEET

SAFETY DATA SHEET

SECTION 1: Identification

1.1 GHS product identifier: ET02 B

1.2 Other means of identification: Epoxy Curing Agent

1.3 Recommended use of the chemical and restrictions on use: N/A

1.4 Supplier's details:

Aerospace Composite Products

78 Lindbergh Ave

Livermore CA 94551

INFORMATION PHONE NUMBER: 925-443-5900

1.5 Emergency phone number: 682-232-4788

SECTION 2 Hazard(s) identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

2.1 Classification of the substance or mixture:

Skin Corrosion/Irritation 1C,

Eye Damage/Irritation 1,

Skin Sensitizer 1

2.2 GHS label elements:

Pictogram:



Signal word: Danger

Hazard statements:

H302 + H312 Harmful if swallowed or in contact with skin

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/vapours/ spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

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.

P501 Dispose of contents/container in accordance with local, regional and international regulations.

Supplemental information: No Additional Information

Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) - Annex III. Regulations in individual countries/regions may determine which statements are required on the product label. See product label for specifics.

2.3 Other hazards which do not result in classification: N/A

Hazards Material Information System (United States):

Health	3
Flammability	1
Physical Hazard	0

Hazard Codes: 0=Chronic Hazard 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical Identity.	CAS No	Concentration
Triethylenetetramine	112-24-3	1-99%

SECTION 4: First-aid measures

4.1 Description of first aid measures

General advice : Remove contaminated clothing. Move out of dangerous area.

If inhaled : If breathed in, move person into fresh air.
Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Rinse immediately with plenty of water. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If skin irritation persists, call a physician.

In case of eye contact : Rinse with plenty of water.
Get medical attention immediately. Continue to rinse during transport.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital.
Do not induce vomiting! May cause chemical burns in mouth and throat

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : corrosive effects and sensitising effects

Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media:

Water fog or fine spray. Carbon dioxide. Alcohol resistant foam. Dry chemical fire extinguishers.

5.2 Specific hazards arising from the chemical:

Flash point is Not Determined. May generate toxic or irritating combustion products.

Sudden reaction and fire may occur if product is mixed with an oxidizing agent.

5.2 Special protective actions for fire-fighters:

Wear positive-pressure self-contained breathing apparatus and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots and gloves.)

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear adequate personal protective equipment; see Section 8-EXPOSURE CONTROLS/PERSONAL PROTECTION.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and clean up:

Absorb spill with inert material. Shovel material into appropriate container for disposal.

Dispose of according to Federal, State and local governmental regulations.

6.4 Reference to other sections

Additional advice : For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Avoid contact with skin or eyes. Avoid breathing of vapors. Handle in well-ventilated workspace. When handling, do not eat, drink, or smoke. Other Precautions: Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations (e.g. OSHA).

7.2 Conditions for safe storage, including any incompatibilities: Keep away from: oxidizers. Keep in cool, dry, ventilated storage areas and in closed containers.

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Chemical Identity.	CAS No	Exposure Limits
Triethylene Tetramine	112-24-3	AIHA WEEL , (TWA) 1 ppm skin

8.2 Exposure controls:

Appropriate engineering controls:

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

Individual protection measures, such as personal protective equipment:

Eye Protection: Tightly fitting chemical safety glasses. Wear chemical goggles; face shield (if splashing is possible).

Hand Protection: Neoprene rubber gloves. Impermeable gloves. Nitrile rubber gloves. The breakthrough time of the selected glove(s) must be greater than the intended use period.

Respiratory Protection: Not required under normal conditions and in a well-ventilated workplace. At elevated temperatures, a cartridge mask National Institute for Occupational Safety and Health (NIOSH) approved for organic vapors may be appropriate.

Protective Clothing: Long sleeved clothing.

Work and Hygienic Practices: Provide readily accessible eye wash stations and safety showers. Wash at the end of each work shift and before eating, smoking or using the toilet.

Notice: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance (physical state, color, etc.): Amber

Odor: ammoniacal

Odor threshold: N/A

pH: Not Determined

Melting point/freezing point: Not Determined

Initial boiling point and boiling range: Not Determined

Flash Point: Not Determined

Evaporation rate: N/A

Flammability (solid, gas): N/A

Upper/lower flammability or explosive limits: LFL-Not Determined; UFL-Not Determined

Vapor pressure: Not Determined

Vapor Density: N/A

Relative density(Specific Gravity): 1.02

Solubility(ies): Liquid Components are Not Readily Soluble in Water

Partition coefficient; n-octanol/water: N/A

Auto-ignition temperature: >300°C

Decomposition temperature: N/A

Viscosity: N/A

% Volatile (VOC): 0g/L

9.2 Other information

This safety data sheet only contains information relating to safety and does not replace any product information or product specification.

SECTION 10: Stability and reactivity

10.1 Reactivity: Stable under normal conditions.

10.2 Chemical stability: Stable under normal conditions.

10.3 Possibility of hazardous reactions: Will not occur

10.4 Conditions to avoid: Avoid exposure - obtain special instructions before use. Keep away from heat, sparks, flame and other ignition sources.

10.5 Incompatible materials: strong oxidizing agents

10.6 Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Decomposition products may include the following materials: nitrogen oxides, carbon monoxide, other organic compounds,

SECTION 11: Toxicological information

11.1 Likely routes of exposure: Eye Contact, Skin Contact, Ingestion.

11.2 Symptoms related to the physical, chemical and toxicological characteristics:

Ingestion: no data available

Skin: Skin contact causes severe burns

Eyes: Risk of serious damage to eyes.

Inhalation: May cause allergic respiratory response upon exposure to heated vapors.

11.3 Delayed and immediate effects and also chronic effects from short and long term exposure:

Sensitization : May cause sensitization

Carcinogen: This material contains no known or suspected carcinogens.

Mutagen: This material contains no known or suspected mutagens.

Reproductive Hazard: This material contains no materials known or suspected to cause reproductive hazards.

11.4 Numerical measures of toxicity:

This finished product has not been tested to determine individual toxicological /ecological limits. Individual components of this mixture have been independently tested by the raw material manufacturers and any known results have been presented below. The results for the individual components may not be representative of the toxicity of this finished product.

Ingredient Name	CAS No.	Test	Result	Route	Species
Triethylene Tetramine	112-24-3	LD50	1716 mg/kg	Oral	Rat
		LD50	1465 mg/kg	Skin	Rabbit

SECTION 12: Ecological information

12.1 Ecotoxicity:

No ecological testing has been conducted on this product.

12.2 Persistence and degradability:

This material contains components that show little or no evidence of biodegradability. Caution should be taken to prevent release to the environment. See Section 13 for further information. Degradation: Based on the stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

12.3 Bioaccumulative potential: N/A**12.4 Mobility in soil: N/A****12.5 Other adverse effects: N/A****SECTION 13: Disposal considerations****13.1 Disposal methods:**

Preferred method of disposal includes incineration under controlled conditions in accordance with all local and national laws and regulations. The generation of waste should be avoided or minimized wherever possible. Untreated material is not suitable for disposal. Waste, even small quantities, should never be poured down drains, sewers or watercourses. Waste must be disposed of in accordance with federal, state and local environmental control regulations. This material, when properly mixed and cured with its resin component at the proper mix ratio, may be safely landfilled. Contaminated packaging: Empty containers can only be disposed of when the remaining product adhering to the container walls has been removed. Hazard warning labels should be removed from the container only after it has been properly emptied.

SECTION 14: Transport information**USDOT**

Hazard class: 8

Packing group: II

ID number: UN 2735

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (contains Triethylenetetramine)

IMDG

Hazard class: 8

Packing group: II

ID number: UN 2735

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (contains Triethylenetetramine)

IATA/ICAO

Hazard class: 8

Packing group: II
ID number: UN 2735
Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (contains Triethylenetetramine)

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations:

HCS Classification Toxic material, Corrosive material, Sensitizing material, Target organ effects

U.S. Federal regulations:
SARA 311/312 Classification Immediate (acute) health hazard, Delayed (chronic) health hazard

SARA 313 - Supplier Notification
This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and Subpart C-Supplier Notification Requirement of 40 CFR Part 372. : None required.

SARA 302 Extremely Hazardous Substances : None required.

State regulations:

Massachusetts RTK Substances The following components are listed:
Triethylenetetramine,

New Jersey RTK Hazardous Substances The following components are listed:
Triethylenetetramine,

Pennsylvania RTK Hazardous Substances The following components are listed:
Triethylenetetramine,

California Prop. 65: None required.

CANADA REGULATIONS

Canada

WHMIS (Canada)

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

Canadian lists Canadian NPRI: None required.

SECTION 16: Other information

Users Responsibility/Disclaimer of Liability:

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK. END OF DATA SHEET