SDS: 0056483
Date Prepared: 03/02/2016

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name:	**L - 306 Epoxy Paste Adhesive, Part A**
Product Description:	Modified epoxy resin
Synonyms:	None
Chemical Family:	Modified epoxy resin
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Intended/Recommended Use:	Engineered materials

CYTEC INDUSTRIES INC., FIVE GARRET MOUNTAIN PLAZA, WOODLAND PARK, NEW JERSEY 07424, USA
For Product and all Non-Emergency Information call 1-800/652-6013. Outside the USA and Canada call 1-973/357-3193.

EMERGENCY PHONE (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:
Asia Pacific:
Australia - +61-3-9663-2130 or 1800-033-111 (IXOM)
China (PRC) - +86 0532 83889090 (NRCC)
New Guinea - +61-3-9663-2130 or 1800-033-111
New Zealand - +61-3-9663-2130 or 0800-734-607 (IXOM)
India, Japan, Korea, Malaysia, Thailand - +65 3158 1074 (Carechem24 Singapore)
India (Hindi Speaking Only) - +65 3158 1198 or 000800 100 7479 (Carechem24 Singapore)
Canada: +1-905-356-8310 (Cytec Welland, Canada plant)
Europe/Africa/Middle East (Carechem24 UK):
Europe, Middle East, Africa, Israel - +44 (0) 1235 239 670
(Arabic speaking countries) - +44 (0) 1235 239 671
Latin America:
Brazil - 0800 7077 022 (SUATRANS)
Chile - +56-2-2-247-3600 (CITUC QUIMICO)
All Others - +52-376-73 74122 (Cytec Atequiza, Mexico plant)
USA: +1-703-527-3887 or 1-800-424-9300 (CHEMTREC #CCN6083)

2. HAZARDS IDENTIFICATION

GHS Classification
Germ Cell Mutagenicity Hazard Category 2
Skin Sensitizer Hazard Category 1B
Aquatic Environment Acute Hazard Category 3
Aquatic Environment Chronic Hazard Category 3

LABEL ELEMENTS

Signal Word
Warning

Hazard Statements
Suspected of causing genetic defects
May cause an allergic skin reaction
Harmful to aquatic life with long lasting effects

Precautionary Statements
Obtain special instructions before use.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
IF exposed or concerned: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Specific treatment (see supplemental first aid instructions on this label).
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container in accordance with local and national regulations.

Hazards Not Otherwise Classified (HNOC), Other Hazards
Polymerization may occur from excessive heat, contamination or exposure to direct sunlight.
Use mechanical exhaust ventilation when heat-curing material.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance, Mixture or Article? Mixture

HAZARDOUS INGREDIENTS

Component / CAS No.	%	GHS Classification	Carcinogen
Aluminosilicate 1327-36-2	20 - 25	Not classified	-
o-Cresol glycidyl ether 2210-79-9	5 - 10	Muta. 2 (H341) Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)	-
Silicon dioxide, amorphous 112945-52-5	3 - 7	Not Classified	-

The specific chemical identity and/or exact percentage of composition for one or more ingredients has been withheld as a trade secret.

Additional GHS classification or other information may be included in this section but has not been adopted by OSHA. See Section 16 for full text of H phrases.

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4. FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

Eye Contact:
Rinse immediately with plenty of water for at least 15 minutes.

Skin Contact:
Wash immediately with plenty of water and soap. Remove contaminated clothing and shoes without delay. Obtain medical attention. Do not reuse contaminated clothing without laundering. Destroy or thoroughly clean shoes before reuse.

Ingestion:
If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Inhalation:
Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

None known

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDS

Not applicable

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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:
Use water spray or fog, carbon dioxide or dry chemical.

Extinguishing Media to Avoid:
full water jet

Protective Equipment:
Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

Special Hazards:
None known

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. Refer to Section 8 (Exposure Controls/Personal Protection) for appropriate personal protective equipment.

Methods For Cleaning Up:
Sweep up into containers for disposal. Flush spill area with water.

References to other sections:
See Sections 8 and 13 for additional information.

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7. HANDLING AND STORAGE

HANDLING

Precautions: Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection.

Special Handling Statements: Provide good ventilation of working area (local exhaust ventilation if necessary).

STORAGE
Store in accordance with local, state, and federal regulations.

Storage Temperature: Store at 25 °C 77 °F
Reason: Quality.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:
Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure when spraying or curing at elevated temperatures.

Respiratory Protection:
Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure. A full facepiece respirator also provides eye and face protection. Cutting, grinding or sanding of parts fabricated after curing may create respirable dust particles. Respiratory protection appropriate for this dust may be required. Refer to components listed above for potential hazardous components in the dust.

Eye Protection:
Wear eye/face protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

Skin Protection:
Avoid skin contact. Wear impermeable gloves and suitable protective clothing. Barrier creams may be used in conjunction with the gloves to provide additional skin protection.

Hand Protection:
Nitrile or fluorinated rubber gloves. Consider the porosity and elasticity data of the glove manufacturer and the specific conditons in the work place. Consider the porosity and elasticity data of the glove manufacturer and the specific conditions in the work place. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Additional Advice:
Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. It is recommended that a shower be taken after completion of workshift especially if significant contact has occurred. Work clothing should then be laundered prior to reuse. Street clothing should be stored separately from work clothing and protective equipment. Work clothing and shoes should not be taken home.

Exposure Limit(s)

The below constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

112945-52-5 Silicon dioxide, amorphous

OSHA (PEL):	20 mppcf
ACGIH (TLV):	Not established
Other Value:	Not established

1327-36-2 Aluminosilicate

OSHA (PEL):	20 mppcf
ACGIH (TLV):	Not established
Other Value:	Not established

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9. PHYSICAL AND CHEMICAL PROPERTIES

Color: off white

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	solid
Odor:	no specific
Boiling Point:	Not applicable
Melting Point:	>200 °C 392 °F
Vapor Pressure:	Not applicable
Specific Gravity/Density:	0.8
Vapor Density:	Not available
Percent Volatile (% by wt.):	Not applicable
pH:	Not applicable
Saturation In Air (% By Vol.):	Not applicable
Evaporation Rate:	Not applicable
Solubility In Water:	Not available
Volatile Organic Content:	Not available
Flash Point:	Not applicable
Flammability (solid, gas):	Not available
Flammable Limits (% By Vol):	Not applicable
Autoignition (Self) Temperature:	Not available
Decomposition Temperature:	Not available
Partition coefficient (n-octanol/water):	Not available
Odor Threshold:	Not available
Viscosity (Kinematic):	Not available

DUST HAZARD INFORMATION

Particle Size (microns):	Not available
Kst (bar-m/sec):	Not available
Maximum Explosion Pressure (Pmax):	Not available
Dust Class:	Not available
Minimum Ignition Energy (MIE) (mJ):	Not available
Minimum Ignition Temperature (MIT) (°C):	Not available
Minimum Explosive Concentration (MEC) (g/m^3):	Not available
Limiting Oxygen Concentration (LOC) (%):	Not available

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions To Avoid:	Keep away from heat, spark and flame.
Polymerization:	May occur
Conditions To Avoid:	Protect from heat.
Materials To Avoid:	Oxidizing agents Acids Amines Bases
Hazardous Decomposition Products:	oxides of carbon When heated to decomposition, it emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY INFORMATION

Likely Routes of Exposure: Skin, Eyes, Oral.

ACUTE TOXICITY DATA

oral	rat	Acute LD50	>2000 mg/kg
dermal	rabbit	Acute LD50	>2000 mg/kg
inhalation	rat	Acute LC50 4 hr	No data

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	skin	No data
Acute Irritation	eye	Not irritating

ALLERGIC SENSITIZATION

Sensitization	skin	Sensitizing
Sensitization	respiratory	No data

GENOTOXICITY

Assays for Gene Mutations

Ames Salmonella Assay No data

OTHER INFORMATION

The product toxicity information above has been estimated.

HAZARDOUS INGREDIENT TOXICITY DATA

o-Cresyl glycidyl ether has an oral LD50 (rat) value of 2500 mg/kg and a dermal LD50 (rabbit) value of 2300 mg/kg. This material is irritating to eyes and skin. Liquid may cause skin sensitization. Inhalation of vapors may cause CNS depression and irritation to the nose, throat and respiratory tract.

Silicon Dioxide has acute oral (rat) LD50 values ranging from 3160 mg/kg to >7500 mg/kg. The LC50 (rat) following a 4-hour inhalation study is >0.25 mg/L (maximum attainable concentration). Chronic and sub-chronic inhalation tests with laboratory animals produced lung damage and death after the lung clearance mechanisms were overloaded. Amorphous silica does not cause the lung diseases crystalline silica is known to cause.

California Proposition 65 Warning (applicable in California only) - This product contains (a) chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

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12. ECOLOGICAL INFORMATION

TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

Overall Environmental Toxicity: Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

The ecological assessment for this material is based on an evaluation of its components.

RESULTS OF PBT AND vPvB ASSESSMENT
Not determined

HAZARDOUS INGREDIENT TOXICITY DATA

Component / CAS No.	Toxicity to Algae	Toxicity to Fish	Toxicity to Water Flea
Aluminosilicate 1327-36-2	Not available	Not available	Not available
o-Cresol glycidyl ether 2210-79-9	Not available	Not available	Not available
Silicon dioxide, amorphous 112945-52-5	EC50 = 440 mg/L - Pseudokirchneriella subcapitata (72h)	LC50 = 5000 mg/L - Brachydanio rerio (96h) static	EC50 = 7600 mg/L - Ceriodaphnia dubia (48h)

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13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this MSDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

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14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

US DOT

Dangerous Goods? Not applicable/Not regulated

TRANSPORT CANADA

Dangerous Goods? Not applicable/Not regulated

ICAO / IATA

Dangerous Goods? Not applicable/Not regulated

IMO

Dangerous Goods? Not applicable/Not regulated

15. REGULATORY INFORMATION

Inventory Information

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

European Economic Area (including EU): When purchased from a Cytec legal entity based in the EU, this product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, pre-registered and/or registered.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS.

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

Japan: One or more components of this product are NOT included on the Japanese (ENCS) inventory.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

OTHER ENVIRONMENTAL INFORMATION
The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

This product does not contain any components regulated under these sections of the EPA

PRODUCT HAZARD CLASSIFICATION UNDER SECTION 311 OF SARA

- Acute
- Chronic

16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire: 1 - Materials that must be preheated before ignition can occur.

Instability: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

Reasons For Issue: Revised Section 2

Date Prepared: 03/02/2016
Date of last significant revision: 03/01/2016

Component Hazard Phrases
o-Cresol glycidyl ether

H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H341 - Suspected of causing genetic defects.
H411 - Toxic to aquatic life with long lasting effects.

Prepared By: Legal & Compliance Services; E-mail: custinfo@cytec.com

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SDS: 0056484
Date Prepared: 05/23/2016

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name:	**L - 306 Epoxy Paste Adhesive, Part B**
Product Description:	Polyamide resin
Synonyms:	None
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Intended/Recommended Use:	Engineered materials

CYTEC INDUSTRIES INC., FIVE GARRET MOUNTAIN PLAZA, WOODLAND PARK, NEW JERSEY 07424, USA
For Product and all Non-Emergency Information call 1-800/652-6013. Outside the USA and Canada call 1-973/357-3193.

EMERGENCY PHONE (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:
Asia Pacific:
Australia - +61-3-9663-2130 or 1800-033-111 (IXOM)
China (PRC) - +86 0532 83889090 (NRCC)
New Guinea - +61-3-9663-2130 or 1800-033-111
New Zealand - +61-3-9663-2130 or 0800-734-607 (IXOM)
India, Japan, Korea, Malaysia, Thailand - +65 3158 1074 (Carechem24 Singapore)
India (Hindi Speaking Only) - +65 3158 1198 or 000800 100 7479 (Carechem24 Singapore)
Canada: +1-905-356-8310 (Cytec Welland, Canada plant)
Europe/Africa/Middle East (Carechem24 UK):
Europe, Middle East, Africa, Israel - +44 (0) 1235 239 670
(Arabic speaking countries) - +44 (0) 1235 239 671
Latin America:
Brazil - 0800 7077 022 (SUATRANS)
Chile - +56-2-2-247-3600 (CITUC QUIMICO)
All Others - +52-376-73 74122 (Cytec Atequiza, Mexico plant)
USA: +1-703-527-3887 or 1-800-424-9300 (CHEMTREC #CCN6083)

2. HAZARDS IDENTIFICATION

GHS Classification
Acute Toxicity (Inhalation) Hazard Category 4
Skin Corrosion / Irritation Hazard Category 1B
Serious Eye Damage / Eye Irritation Hazard Category 1
Skin Sensitizer Hazard Category 1A
Aquatic Environment Acute Hazard Category 2
Aquatic Environment Chronic Hazard Category 2

LABEL ELEMENTS

Signal Word
Danger

Hazard Statements
Harmful if inhaled
Causes severe skin burns and eye damage
May cause an allergic skin reaction
Toxic to aquatic life with long lasting effects

Precautionary Statements
Use only outdoors or in a well-ventilated area.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment (see supplemental first aid instructions on this label).
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Store locked up.
Dispose of contents/container in accordance with local and national regulations.

Hazards Not Otherwise Classified (HNOC), Other Hazards
Polymerization may occur from excessive heat, contamination or exposure to direct sunlight.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance, Mixture or Article? Mixture

HAZARDOUS INGREDIENTS

Component / CAS No.	%	GHS Classification	Carcinogen
Polyamide -	60 - 90	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)	-
Triethylenetetramine 112-24-3	1 - 5	Acute Tox. 4 (H312) Acute Tox. 4 (H302) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Skin Sens. 1B (H317) Aquatic Acute 3 (H402) Aquatic Chronic 3 (H412)	-
Diethylenetriamine 111-40-0	1 - 5	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 2 (H330) STOT Single 3 (H335) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Skin Sens. 1B (H317)	-

Component / CAS No.	%	GHS Classification	Carcinogen
Aluminosilicate 1327-36-2	10 - 30	Not classified	-
Silicon dioxide, amorphous 112945-52-5	1 - 5	Not Classified	NTP

The specific chemical identity and/or exact percentage of composition for one or more ingredients has been withheld as a trade secret.

Additional GHS classification or other information may be included in this section but has not been adopted by OSHA. See Section 16 for full text of H phrases.

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4. FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

Eye Contact:
Rinse immediately with plenty of water for at least 15 minutes. Obtain medical attention immediately.

Skin Contact:
Remove contaminated clothing and shoes without delay. Wear impermeable gloves. Wash immediately with plenty of water. Pay particular attention to skin crevices, nail folds, etc. Do not reuse contaminated clothing without laundering. Do not reuse contaminated leatherware. Obtain medical attention.

Ingestion:
If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Inhalation:
Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

None known

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDS

Not applicable

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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:
Use water spray, alcohol foam, carbon dioxide or dry chemical to extinguish fires. Water stream may be ineffective.

Extinguishing Media to Avoid:
full water jet

Protective Equipment:
Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

Special Hazards:
Keep containers cool by spraying with water if exposed to fire.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

Methods For Cleaning Up:
Remove sources of ignition. Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

References to other sections:
See Sections 8 and 13 for additional information.

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7. HANDLING AND STORAGE

HANDLING

Precautions: Avoid release to the environment. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Do not breathe dust.

Special Handling Statements: Provide good ventilation of working area (local exhaust ventilation if necessary).

STORAGE
Store in accordance with local, state, and federal regulations.

Storage Temperature: Store at 25 °C 77 °F
Reason: Quality.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:
Utilize a closed system process where feasible. Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure when spraying or curing at elevated temperatures.

Respiratory Protection:
Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure. A full facepiece respirator also provides eye and face protection.

Eye Protection:
Prevent eye and skin contact. Provide eye wash fountain and safety shower in close proximity to points of potential exposure. Wear eye/face protection such as chemical splash proof goggles or face shield.

Skin Protection:
Prevent contamination of skin or clothing when removing protective equipment. Barrier creams may be used in conjunction with the gloves to provide additional skin protection. Wear impermeable gloves and suitable protective clothing. Since this product is absorbed through the skin, care must be taken to prevent skin contact and contamination of clothing.

Hand Protection:
Nitrile rubber gloves. Consider the porosity and elasticity data of the glove manufacturer and the specific conditions in the work place.

Additional Advice:
Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

Exposure Limit(s)

The below constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

111-40-0 Diethylenetriamine

OSHA (PEL):	Not established
ACGIH (TLV):	(skin) 1 ppm (TWA)
Other Value:	Not established

112945-52-5 Silicon dioxide, amorphous

OSHA (PEL):	20 mppcf
ACGIH (TLV):	Not established
Other Value:	Not established

1327-36-2 Aluminosilicate

OSHA (PEL):	20 mppcf
ACGIH (TLV):	Not established
Other Value:	Not established

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	off white
Appearance:	solid
Odor:	amine
Boiling Point:	Not applicable
Melting Point:	>93.3 °C 200 °F
Vapor Pressure:	Not applicable
Specific Gravity/Density:	0.8
Vapor Density:	Not available
Percent Volatile (% by wt.):	Not applicable
pH:	Not applicable
Saturation In Air (% By Vol.):	Not applicable
Evaporation Rate:	Not applicable
Solubility In Water:	Not available
Volatile Organic Content:	Not available
Flash Point:	Not applicable
Flammability (solid, gas):	Not available
Flammable Limits (% By Vol):	Not applicable
Autoignition (Self) Temperature:	Not available
Decomposition Temperature:	Not available
Partition coefficient (n-octanol/water):	Not available
Odor Threshold:	Not available
Viscosity (Kinematic):	Not available

DUST HAZARD INFORMATION

Particle Size (microns):	Not available
Kst (bar-m/sec):	Not available
Maximum Explosion Pressure (Pmax):	Not available
Dust Class:	Not available
Minimum Ignition Energy (MIE) (mJ):	Not available
Minimum Ignition Temperature (MIT) (°C):	Not available
Minimum Explosive Concentration (MEC) (g/m^3):	Not available
Limiting Oxygen Concentration (LOC) (%):	Not available

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions To Avoid: Keep away from heat, spark and flame.

Polymerization: May occur

Conditions To Avoid: Protect from heat.

Materials To Avoid: Acids

Hazardous Decomposition Products: oxides of carbon
Oxides of nitrogen
When heated to decomposition, it emits toxic fumes.

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11. TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY INFORMATION

Likely Routes of Exposure: Eyes, Skin, Respiratory System.

ACUTE TOXICITY DATA

oral	rat	Acute LD50	>2000 mg/kg
dermal	rabbit	Acute LD50	>2000 mg/kg
inhalation	rat	Acute LC50 4 hr	~2.2 mg/l (Dust/Mist)

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	skin	Corrosive
Acute Irritation	eye	Causes serious damage

ALLERGIC SENSITIZATION

Sensitization	skin	Sensitizing
Sensitization	respiratory	No data

GENOTOXICITY

Assays for Gene Mutations
Ames Salmonella Assay No data

OTHER INFORMATION
The product toxicity information above has been estimated.

HAZARDOUS INGREDIENT TOXICITY DATA

Polyamide has acute oral (rat-female) and acute dermal (rat) LD50 values of >2000 g/kg and >2000 mg/kg, respectively. Direct contact with this material may produce moderate skin irritation and severe eye irritation. This material produced dermal sensitization when tested in the Local Lymph Node Assay.This substance is not mutagenic in the Ames Assay. Based on testing conducted a structurally similar substance (analog) this material is not expected to be mutagenic in the in vitro Mouse Lymphoma Assay and not clastogenic in the in vitro Chromosomal Aberrations Assay

Triethylenetetramine (TETA) has acute oral (rat) and acute dermal (rabbit) LD50 values of 1716 mg/kg and 1465 mg/kg, respectively. Direct contact with TETA can produce severe skin irritation with necrosis and moderate to severe eye irritation. Skin contact may cause an allergic skin reaction. Inhalation of TETA may cause respiratory tract irritation/burns and potential respiratory sensitization in sensitive individuals. TETA was mutagenic in the Ames test and produced genetic damage in an E. coli differential repair assay but did not induce chromosomal aberrations in the in vivo mouse micronucleus assay. TETA did not exhibit carcinogenic potential in a lifetime mouse skin painting study.

Diethylenetriamine has acute oral (rat) LD50 values of 1620 mg/kg. Diethylenetriamine has acute dermal (rabbit) LD50 values of 1090 mg//kg. The LC50 value (rat, aerosol, 4 hr) is 0.07 - 0.3 mg/l. No mortality was seen in rats exposed to 300 ppm for 8-hours. This substance may cause respiratory tract irritation. Repeated inhalation exposures can cause asthmatic type responses. Direct contact with Diethylenetriamine may cause severe irritation and/or irreversible damage (burns) to the eyes and skin. Repeated or prolonged dermal contact may cause allergic skin reactions. In the majority of studies performed with microorganisms and in mammalian cell culture, a mutagenic effect was not found. A mutagenic effect was also not observed in in vivo tests. The substance showed no carcinogenic activity in animals after chronic administration to the skin. Under certain conditions the substance can form nitrosamines. Nitrosamines are carcinogenic in animal studies.

Silicon Dioxide has acute oral (rat) LD50 values ranging from 3160 mg/kg to >7500 mg/kg. The LC50 (rat) following a 4-hour inhalation study is >0.25 mg/L (maximum attainable concentration). Chronic and sub-chronic inhalation tests with laboratory animals produced lung damage and death after the lung clearance mechanisms were overloaded. Amorphous silica does not cause the lung diseases crystalline silica is known to cause.

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12. ECOLOGICAL INFORMATION

TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

The ecological assessment for this material is based on an evaluation of its components.

RESULTS OF PBT AND vPvB ASSESSMENT
Not determined

HAZARDOUS INGREDIENT TOXICITY DATA

Component / CAS No.	Toxicity to Algae	Toxicity to Fish	Toxicity to Water Flea
Polyamide -	ErC50 = 4.11 mg/L - Green Algae (72h)	LC50 = 1-10 mg/L - Zebrafish (96h)	EC50 = 1-10 mg/L - Daphnia Magna (48h)

Component / CAS No.	Toxicity to Algae	Toxicity to Fish	Toxicity to Water Flea
Triethylenetetramine 112-24-3	EC50 = 3.7 mg/L - Pseudokirchneriella subcapitata (96h) EC50 = 2.5 mg/L - Desmodesmus subspicatus (72h) EC50 = 20 mg/L - Pseudokirchneriella subcapitata (72h)	LC50 = 570 mg/L - Poecilia reticulata (96h) semi-static LC50 = 495 mg/L - Pimephales promelas (96h)	EC50 = 31.1 mg/L - Daphnia magna (48h)
Diethylenetriamine 111-40-0	EC50 = 1164 mg/L - Pseudokirchneriella subcapitata (72h) EC50 = 592 mg/L - Desmodesmus subspicatus (96h) EC50 = 345.6 mg/L - Pseudokirchneriella subcapitata (96h)	LC50 = 1014 mg/L - Poecilia reticulata (96h) semi-static LC50 = 248 mg/L - Poecilia reticulata (96h) static	EC50 = 16 mg/L - Daphnia magna (48h)
Aluminosilicate 1327-36-2	Not available	Not available	Not available
Silicon dioxide, amorphous 112945-52-5	EC50 = 440 mg/L - Pseudokirchneriella subcapitata (72h)	LC50 = 5000 mg/L - Brachydanio rerio (96h) static	EC50 = 7600 mg/L - Ceriodaphnia dubia (48h)

13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this MSDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

US DOT

Dangerous Goods? X

Proper Shipping Name: Corrosive liquid, n.o.s.
Hazard Class: 8
Packing Group: II
UN/ID Number: UN1760
Transport Label Required: Corrosive
Marine Pollutant
Marine Pollutant

Technical Name (N.O.S.): Triethylenetetramine, Diethylenetriamine, Polyamide

Comments: Marine Pollutants - DOT requirements specific to Marine Pollutants do not apply to non-bulk packagings transported by motor vehicles, rail cars or aircraft.

TRANSPORT CANADA

Dangerous Goods? X
Proper Shipping Name: Corrosive liquid, n.o.s.
Hazard Class: 8
Packing Group: II
UN Number: UN1760
Transport Label Required: Corrosive
Marine Pollutant
Marine Pollutant
Technical Name (N.O.S.): triethylenetetramine, diethylenetriamine, Polyamide

ICAO / IATA

Dangerous Goods? X
Proper Shipping Name: Corrosive liquid, n.o.s.
Hazard Class: 8
Packing Group: II
UN Number: UN1760
Transport Label Required: Corrosive
Marine Pollutant
Technical Name (N.O.S.): triethylenetetramine, diethylenetriamine, Polyamide

Comments: Marine Pollutants-IATA Special Provision A197 when transported in single or combination packagings containing a net quantity per single or inner packaging of 5L or less for liquids or 5 kg for solids, are not subject to any provisions of these regulations. Note if the material also meets the criteria under additional hazard classes then all requirements continue to apply for those hazards.

IMO

Dangerous Goods? X
Proper Shipping Name: Corrosive liquid, n.o.s.
Hazard Class: 8
UN Number: UN1760
Packing Group: II
Transport Label Required: Corrosive
Marine Pollutant
Marine Pollutant
Technical Name (N.O.S.): triethylenetetramine, diethylenetriamine, Polyamide

Comments: Marine Pollutants -IMDG 2.10.2.7 when packaged in single or combination packagings, containing a net quantity per single or inner packaging of 5L or less for liquids or 5 kg for solids are not subject to any other provisions of this code. Note if the material also meets the criteria under additional hazard classes then all requirements continue to apply for those hazards.

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15. REGULATORY INFORMATION

Inventory Information

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

European Economic Area (including EU): When purchased from a Cytec legal entity based in the EU, this product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, pre-registered and/or registered.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS.

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

Japan: One or more components of this product are NOT included on the Japanese (ENCS) inventory.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

OTHER ENVIRONMENTAL INFORMATION
The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

This product does not contain any components regulated under these sections of the EPA

PRODUCT HAZARD CLASSIFICATION UNDER SECTION 311 OF SARA
- Acute

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16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

Fire: 1 - Materials that must be preheated before ignition can occur.

Instability: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

Reasons For Issue: Revised Section 14

Date Prepared: 05/23/2016
Date of last significant revision: 05/23/2016

Component Hazard Phrases
Polyamide
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H317 - May cause an allergic skin reaction.
H401 - Toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.
Triethylenetetramine

H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H402 - Harmful to aquatic life.
H412 - Harmful to aquatic life with long lasting effects.

Diethylenetriamine

H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H330 - Fatal if inhaled.
H335 - May cause respiratory irritation.

Prepared By: Legal & Compliance Services; E-mail: custinfo@cytec.com

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