



MSDS: 0009327
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MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **CYCOM® 919 Prepreg**
Synonyms: None
Chemical Family: Epoxy
Molecular Formula: Mixture
Molecular Weight: Mixture

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

EMERGENCY PHONE (24 hours/day) - For emergency involving spill, leak, fire, exposure or accident call:

Asia Pacific:

Australia - +61-3-9663-2130 or 1800-033-111
China (PRC) - +86 10 5100 3039 (Carechem24 China)
New Guinea - +61-3-9663-2130
New Zealand - +61-3-9663-2130 or 0800-734-607
All Others - +65 3158 1074 (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
Middle East, Africa (Arabic speaking countries) - +44 (0) 1235 239 671

Latin America:

Brazil - 0800 0111 767 (SOS Cotec)
Chile - +56-2-247-3600 (CITUC QUIMICO)
All Others - +52-376-73 74122 (Cytec Atequiza, Mexico plant)

USA: +1-703-527-3887 or 1-800-424-9300 (CHEMTREC #CCN6083)

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2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE AND ODOR:

Color: cream
Appearance: solid
Odor: faint epoxy

STATEMENTS OF HAZARD:

WARNING! MAY CAUSE ALLERGIC SKIN REACTION

POTENTIAL HEALTH EFFECTS

EFFECTS OF EXPOSURE:

Based on the physical form of this product, exposure by the oral or inhalation route is unlikely. The acute dermal (rabbit) LD50 value is estimated to be greater than 2000 mg/kg. Allergic skin reactions or primary skin irritation may be produced by prolonged or repeated dermal contact with epoxy resins. Exposure to vapor during heat curing may cause irritation or injury of the respiratory tract and eye irritation. Refer to Section 11 for toxicology information on the regulated components of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

OSHA REGULATED COMPONENTS

Component / CAS No.	%	Carcinogen
Modified ether with bisphenol A epoxy resin -	60 - 100	-
Carbon Fiber 7440-44-0	-	-
Fiberglass -	-	-
Aramid fiber 26125-61-1	-	-
May be supplied on following carriers (carriers identified on label): -	-	-
Acetone 67-64-1	1 - 5	-
2-Butanone (Methyl ethyl ketone) 78-93-3	1 - 5	-

4. FIRST AID MEASURES

Eye Contact:

Not an expected route of exposure.

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:

Not an expected route of exposure.

Inhalation:

Not an expected route of exposure.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Use water spray or fog, carbon dioxide or dry chemical.

Protective Equipment:

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

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.

Environmental Precautions:

None known

7. HANDLING AND STORAGE

HANDLING

Precautionary Measures: Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

Special Handling Statements: Heating or curing of unused rolls or sheets of product prior to disposal is not recommended. Heating a large mass of product can lead to a rapid decomposition reaction, generating heat, smoke and possibly fire. This material contains a small amount of flammable or combustible liquid and vapor. Keep away from heat, sparks, and flame.

STORAGE

None

Storage Temperature: Store at -18 °C 0 °F

Reason: Quality.

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.

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)**7440-44-0 Carbon Fiber**

OSHA (PEL): Not established
 ACGIH (TLV): Not established
 Other Value: 3 fibers/cc (Cytec)

67-64-1 Acetone

OSHA (PEL): 1000 ppm (TWA)
 2400 mg/m³ (TWA)
 ACGIH (TLV): 750 ppm (STEL)
 500 ppm (TWA)
 Other Value: Not established

78-93-3 2-Butanone (Methyl ethyl ketone)

OSHA (PEL): 200 ppm (TWA)
 590 mg/m³ (TWA)
 ACGIH (TLV): 300 ppm (STEL)
 200 ppm (TWA)
 Other Value: Not established

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: cream
 Appearance: solid
 Odor: faint epoxy
 Boiling Point: Not applicable
 Melting Point: Not available
 Vapor Pressure: @ 20 °C Negligible
 Specific Gravity/Density: 1.38resin
 Vapor Density: @ 20 °C Negligible
 Percent Volatile (% by wt.): 2(maximum)
 pH: Not available
 Saturation In Air (% By Vol.): Not available
 Evaporation Rate: Negligible
 Solubility In Water: negligible
 Volatile Organic Content: Not available
 Flash Point: Not applicable
 Flammable Limits (% By Vol): Not available
 Autoignition Temperature: Not available
 Decomposition Temperature: Not available
 Partition coefficient (n-octanol/water): Not available
 Odor Threshold: Not available

10. STABILITY AND REACTIVITY

Stability: Stable
 Conditions To Avoid: Do not store above 27 °C (80 °F).
 Polymerization: May occur
 Conditions To Avoid: Avoid contact with bases or amines. Do not heat above 60 °C (140 °F).
 Materials To Avoid: Bases

Hazardous Decomposition**Products:**

oxides of carbon
nitrogen oxides (NOx)
hydrogen cyanide (HCN)

11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 2. HAZARDS IDENTIFICATION.

Toxicological information on the regulated components of this product is as follows:

Modified ether with bisphenol A epoxy resin has toxicological properties that have not been fully investigated. Prolonged or repeated exposure to epoxy resins may produce allergic skin reaction and primary skin irritation. HYCAR 1072/1472 RPW CTBN, DGEBA, Diglycidyl tetrabromo bisphenol A has toxicological properties that have not been fully investigated. Prolonged or repeated contact to epoxy resins may produce allergic skin reactions and primary skin irritation.

Carbon fibers may cause mechanical irritation of the eyes, skin, nose and throat. Airborne carbon fibers are not considered respirable. A typical carbon fiber may be characterized as having a diameter of 5-7 microns and a length greater than 100 microns. Fibers with diameters greater than 3.5 microns are not considered respirable.

Fiberglass is considered a nuisance particulate which will not cause adverse health effects other than respiratory congestion or irritation.

Aramid fibers (AFs) have an acute oral LD50 (rat) >7.5 g/kg. AFs are not irritating to skin and do not cause skin sensitization. Rats exposed to these respirable fibers by inhalation for 2 years developed mild pulmonary fibrosis (25 fibers/cc3) and lung tumors (100 fibers/cc3). The lung tumors are unique to rats and not observed in humans. The mechanical working (cutting, grinding, machining, etc...) of AFs or raw materials containing AFs may result in the generation of airborne respirable fibers and appropriate measures should be taken to avoid their inhalation. These toxicology data may not be representative because the fiber product may be non-respirable.

This product can be supplied on various types of carriers. Some carriers may present a hazard during cutting, sanding, or grinding operations on the cured product. Toxicology information for these materials are discussed below.

Acetone has acute oral (rat) and dermal (rabbit) LD50 values of 5.8 g/kg and 15.7 g/kg, respectively. The LC50 (rat) for acetone vapor after a four hour exposure is 16,000 ppm (37.95 mg/L). Literature reports a LC50 inhalation (4-hr, rat) value of 29,900 ppm and acute ingestion can cause central nervous system effects. Chronic exposure to vapor may cause dryness of mouth, headache, dizziness, nausea, and loss of coordination. Liquid acetone is moderate to severely irritating to the eyes and mildly irritating to the skin. Repeated dermal application of acetone produced cataracts in the eyes of laboratory animals. High concentrations of acetone caused fetotoxic effects in laboratory animals tests. Acetone has shown positive results in in vitro screening tests for mutagenicity. Literature reports that in laboratory animal tests, acute ingestion has caused CNS effects and chronic ingestion has caused kidney and male reproductive organ effects.

2-Butanone (MEK) has acute oral (rat) and dermal (rabbit) LD50 values of 2700 mg/kg and 6500 mg/kg, respectively. The acute inhalation (rat) LC50 following a 2-hour exposure is 4000 ppm (8.3 mg/L/4hr). Acute exposure to 2-Butanone (MEK) vapor may cause eye and respiratory tract irritation, central nervous system depression, headache, nausea, dizziness and staggered gait. 2-Butanone (MEK) causes moderate to severe eye and mild to moderate skin irritation upon contact. Chronic exposure to 2-Butanone (MEK) vapor may cause central nervous system depression and sleepiness. In a teratogenicity study, pregnant rats inhaled 0, 400, 1000, or 3000 ppm 2-Butanone for 7 hr/day on days 6 through 15 of gestation. Exposure at these levels did not cause any serious birth defects. A few minor malformations were observed at 3000 ppm. At this level, maternal toxicity, evidenced by decreased weight gain and water intake, was observed. In another teratogenicity study, minor malformations were also observed, however, no signs of maternal toxicity were noted. MEK is reported to have shown positive results in a screening test for mutagenicity using the *S. cerevisiae* strain of yeast. Absorption of a high dose of MEK caused death in laboratory animals. Human ingestion of MEK has caused central nervous system effects and aspiration has caused sudden death in laboratory animal tests.

12. ECOLOGICAL INFORMATION

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Environmental exposure from substances of this preparation are limited due to the physical form of the product. This material is not classified as dangerous for the environment.

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? 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

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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.

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

Component / CAS No.	%	TPQ (lbs)	RQ(lbs)	S313	TSCA 12B
Acetone 67-64-1	1 - 5	None	5000	No	No
2-Butanone (Methyl ethyl ketone) 78-93-3	1 - 5	None	5000	No	No

PRODUCT HAZARD CLASSIFICATION UNDER SECTION 311 OF SARA

- Acute

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 1
	Revised Section 2
	Revised Section 3
	Revised Section 8
	Revised Section 10
	Revised Section 15

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