



Material Safety Data Sheet

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

CIM Industries
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Transportation Emergency
CHEMTREC: (800)424-9300
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Product Name
CIM 61TN Epoxy Resin

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SECTION 2 – HAZARD IDENTIFICATION

Emergency Overview

OSHA Hazards

Flammable liquid, Irritant

Human Effects and Symptoms of Overexposure

Skin

Can cause skin irritation and dermatitis.

Eye

Can cause severe eye irritation, redness and blurred vision.

Ingestion

Can cause irritation, vomiting, nausea and diarrhea.

Inhalation

May be harmful if inhaled. Vapors may cause drowsiness and dizziness.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

CAS Number	Material	Weight %	ACGIH	
			TWA	STEL
25068-38-6	Diglycidyl Ether of Bisphenyl A	30-35%	N/E	N/E
13463-67-7	Titanium Dioxide*	20-25%	10 mg/m ^{3**}	N/E
14808-60-7	Microcrystalline Silica*	15-20%	0.1 mg/m ^{3**}	N/E
123-86-4	n-Butyl Acetate	10-15%	150 ppm	200 ppm
1344-95-2	Calcium Silicate*	5-10%	10 mg/m ^{3**}	
78-93-3	Methyl Ethyl Ketone	<5%	200 ppm	300 ppm
51274-00-1	Iron Oxide Hydrate*	<5%	5 mg/m ^{3**}	N/E
1330-20-7	Xylenes	<5%	100 ppm	150 ppm
67-63-0	Isopropanol	<5%	400 ppm	N/E

N/E: Not Established

* As supplied, these ingredients are bound in the polymer matrix. Because they are bound in the matrix, they are not expected to create any unusual hazards when handled and processed according to good manufacturing and industrial hygiene practices and the guidelines provided in this MSDS.

** As respirable dust

SECTION 4 – FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact

Remove contaminated clothing. Wash clothing before reuse. Wash off with soap and plenty of water. If skin irritation persists, consult a physician.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician and/or transport to a medical facility.

SECTION 5 – FIREFIGHTING MEASURES

Conditions of Flammability

Material is flammable in the presence of a source of ignition. Keep away from heat, sparks, open flames and hot surfaces. No smoking. Vapors may travel considerable distances to a source of ignition. Vapors are heavier than air and may accumulate in low lying areas.

Suitable Extinguishing Media

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

Special Firefighting Procedures

Wear self-contained breathing apparatus for firefighting if necessary. Water should be used as a fog only to keep containers cool in order to minimize pressure buildup and explosion.

Unusual Fire/Explosion Hazard

Hazardous decomposition products formed under fire conditions.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, apply absorbent material and then shovel with a non-sparking tool into a closable container for disposal according to local regulations (see section 13).

SECTION 7 – HANDLING AND STORAGE

Storage Temperature

4°C (40°F) Minimum

43°C (110°F) Maximum

Storage Period

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handling/Storage Precautions

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition. No smoking. Take measures to prevent the buildup of electrostatic charge.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Industrial Hygiene/Ventilation Measures

General local exhaust should be used as necessary to control airborne vapors and thermal decomposition products below appropriate airborne concentration standards/guidelines, especially during high heat operations.

Respiratory Protection

Atmospheric concentrations should be maintained below the threshold limit guidelines provided. When these concentrations cannot be maintained respiratory protection is required. Use of NIOSH approved filters designed to remove a combination of particulate, gaseous and vapor materials. In confined areas use NIOSH approved positive pressure, self-contained breathing apparatus. Wear respiratory protection when sanding, grinding, blasting or cutting the cured product.

Hand Protection

Handle with appropriate solvent resistant gloves and pay attention to breakthrough time. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin

contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection

Chemical resistant goggles or safety glasses with side shields should be used.

Skin and Body Protection

For brief contact no precautions other than clean body covering clothing should be needed. For prolonged use impermeable gloves, clothing aprons and protective coverings should be used whenever possible.

Additional Protective Measures

Employees should wash their hands before eating, drinking or using tobacco products. Educate and train employees in the safe use and handling of this product.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Opaque Viscous Liquid
Color	Yellow
Odor	Solvent
pH	No data available
Flash Point	-4°C (24°F) – Closed Cup
Lower Explosion Limit	1% by volume
Upper Explosion Limit	15% by volume
Specific Gravity	1.6
Solubility in Water	Very Slightly Soluble
Autoignition Temperature	>450°C (>842°F)
VOC	<219 g/L (1.82 lb/gal) for this component 240 g/L (2.0 lb/gal) for the mixed epoxy (per EPA Method 24)

SECTION 10 – STABILITY AND REACTIVITY

Possibility of hazardous reactions

Vapors may form explosive mixture with air.

Hazardous Polymerization

Will not occur.

Stability

Material is stable under recommended storage conditions.

Materials to Avoid

Oxidizing agents. Mixing with strong acids or bases, especially primary and secondary amines, can cause generation of considerable heat.

Conditions to Avoid

Heat, flames, sparks and other possible ignition sources.

Hazardous Decomposition Products

Material does not decompose at normal working conditions. By fire and thermal decomposition carbon monoxide, aldehydes, acids and other organic compounds may be formed.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicity Note

No data is available for this product, but information for the individual components is below.

CAS Number	Material	DERMAL LD50	INHALATION LC50	ORAL LD50
25068-38-6	Diglycidyl Ether of Bisphenyl A	>4,000 mg/kg (Rat)	Not Available	>5,000 mg/kg (Rat)
13463-67-7	Titanium Dioxide	>5,000 mg/kg (Rabbit)	>6.82 mg/l, 4h (Rat)	>5,000 mg/kg (Rat)
14808-60-7	Microcrystalline Silica	Not Available	Not Available	Not Available
123-86-4	n-Butyl Acetate	17,601 mg/kg (Rabbit)	Not Available	10,768 mg/kg (Rat)
1344-95-2	Calcium Silicate	Not Available	Not Available	Not Available
78-93-3	Methyl Ethyl Ketone	6,480 mg/kg (Rabbit)	23.5 mg/l, 8h (Rat)	2,737 mg/kg (Rat)
51274-00-1	Iron Oxide Hydrate	Not Available	Not Available	>10,000 mg/kg (Rat)
1330-20-7	Xylene	1,700 mg/kg (Rabbit)	5 mg/l, 4h (Rat)	4,300 mg/kg (Rat)
67-63-0	Isopropanol	12,800 mg/kg (Rabbit)	Not Available	5,045 mg/kg (Rat)

CAS Number	Material	Carcinogenicity OSHA/IARC	Teratogenicity	Mutagenicity
25068-38-6	Diglycidyl Ether of Bisphenyl A	No	Yes (in animal studies)	Yes (in animal studies)
13463-67-7	Titanium Dioxide	Yes*	N/E	No
14808-60-7	Microcrystalline Silica	Yes*	N/E	N/E
123-86-4	n-Butyl Acetate	N/E	N/E	N/E
1344-95-2	Calcium Silicate	No	No	N/E
78-93-3	Methyl Ethyl Ketone	N/E	Possible	N/E
51274-00-1	Iron Oxide Hydrate	No	N/E	N/E
1330-20-7	Xylenes	No	N/E	N/E
67-63-0	Isopropanol	No	N/E	N/E

N/E: Not Established

* As supplied, these ingredients are bound in the polymer matrix. Because they are bound in the matrix, they are not expected to create any unusual hazards when handled and processed according to good manufacturing and industrial hygiene practices and the guidelines provided in this MSDS. Additionally, a IARC working group determined that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other material, such as in paints."

SECTION 12 – ECOLOGICAL INFORMATION

Ecological Note

No data is available for this product, but information for the individual components is below.

Ecological Data for Bisphenol A Diglycidyl Ether (BADGE)

Acute and Prolonged Toxicity to Fish

LC50: 1.5 mg/l (Rainbow (Donaldson) Trout (Oncorhynchus mykiss), 96 h)

LC50: 2.4 mg/l (Zebra fish (Brachydanio rerio), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 3.6 mg/l (Water flea (Daphnia magna), 24 h)

Ecological Data for Titanium Dioxide**Acute and Prolonged Toxicity to Fish**

LC0: >1,000mg/l (Golden orfe, 48h)

Acute Toxicity to Aquatic Invertebrates

EC0: >3mg/l (Water flea)

Toxicity to Microorganisms

EC0: >10,000mg/l (Pseudomonas fluorescens, 24h)

Ecological Data for Methyl Ethyl Ketone**Acute and Prolonged Toxicity to Fish**

LC50: 3,220 mg/l (fathead Minnow, 96h)

Ecological Data for Isopropanol**Acute and Prolonged Toxicity to Fish**

LC50: 100,000 mg/l (fathead Minnow, 96h)

SECTION 13 – DISPOSAL CONSIDERATIONS**Waste Disposal Method**

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

SECTION 14 – TRANSPORT INFORMATION**Land Transport (DOT)**

UN number: 1139 Class: 3 Packing Group: II

Proper shipping name: Coating Solution

Sea Transport (IMDG)

UN number: 1139 Class: 3 Packing Group: II

Proper shipping name: Coating Solution

Air Transport (ICAO/IATA)

UN number: 1139 Class: 3 Packing Group: II

Proper shipping name: Coating Solution

SECTION 15 – REGULATORY INFORMATION**TSCA Toxic Substance Control Act)**

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

Xylenes

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

CERCLA

Methyl Ethyl Ketone 5000#

Xylenes 100#

Massachusetts, New Jersey and Pennsylvania Right-to-Know Lists

Bisphenol A Diglycidyl Ether (25068-38-6)

n-Butyl Acetate (123-86-4)

Calcium Silicate (1344-95-2)

Crystalline Silica (14808-60-7)

Methyl Ethyl Ketone (78-93-3)

Xylenes (1330-20-7)

Isopropyl Alcohol, 99% (67-63-0)

California Prop. 65 Components

Crystalline Silica is known by the State of California to Cause Cancer when it is the form of "airborne, unbound particles of respirable size". As supplied, these ingredients are bound in the polymer matrix. Because they are bound in the matrix, they are not expected to create any unusual hazards when handled and processed according to good manufacturing and industrial hygiene practices and the guidelines provided in this MSDS.

CPR (Canadian Controlled Products Regulations)

Components of this product identified by CAS numbers have been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. The crystalline silica is inextricably bound and, under normal conditions of use or during foreseeable emergencies, cannot become airborne and result in worker exposure. The product does not fall within the criteria described in section 58 of the CPR

WHMIS Classification

Class B-2: Flammable Liquid with flash point lower than 37.8°C (100°F)

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

EINECS (European Inventory of Existing Commercial Chemical Substances)

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

EEC Labeling

Symbols: None

R Phrases: R11, R20, 36/38

S Phrases: S9, S16, S25, S33, S46

HMIS Labeling

Health	1
Flammability	3
Physical Hazard	0

0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

NFPA Rating

Health	1
Fire	3
Reactivity Hazard	0

0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

SECTION 16 – OTHER INFORMATION

Format

This form is designed to meet the guidelines provided by the American National Standards Institute (ANSI) Form Z400.1/Z129.1 – 2010.

Disclaimer

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Issued By

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