



MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT: ELASTO-GLAZE CRU [B-COMPONENT]

MSDS DATE: 3/13/2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ELASTO-GLAZE CRU [B-COMPONENT]
 PRODUCT CODES: EGCRU-B
 MANUFACTURER: ER SYSTEMS (AN ITW COMPANY)
 ADDRESS: 12271 MONARCH STREET, GARDEN GROVE, CA 92841
 INFORMATION PHONE: 714-898-0025
 FAX NUMBER: 714-898-5687

EMERGENCY Contact during transport
 INFOTRAC 1-800-535-5053
 CUSTOMER ID: 74919

CHEMICAL FAMILY: POLYURETHANE

PRODUCT USE: CLEAR TWO COMPOENENT SOLVENT BASED POLYURETHANE SEALER / TOPCOAT
 PREPARED BY: ER SYSTEMS

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS / CAS #	OSHA PEL	ACGIH TLV	OSHA STEL / CEL	LD50/LC50	WT %
Polymeric Hexamethylene Diisocyanate #28182-81-2	0.5mg/m3	0.5mg/m3	1.0 mg/m3 (15-min)	LD50 (rat, oral) >5000mg/kg LC50 (inhalation, rat): 390 – 453 mg/m3, aerosol, 4-hrs LD50 (rabbit, dermal): > 5000 mg/kg	50 – 65%
Hexamethylene 1,6-Diisocyanate #822-06-0	0.005ppm	0.005ppm	0.02 ppm (ceiling limit)		< 0.4%
4-Chlorobenzotrifluoride CAS# 98-56-6	No data	No data	25 ppm, 8hr TWA	LD50 (oral)(rat) >6.8g/kg Ld50 (dermal) (rabbit) >2.7 g/kg LC50 (inhalation)(rat) 4479ppm	40 – 50 %

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Use proper ventilation. Wear protective equipment and clothing. Do not inhale vapor and mist. Do not ingest. Avoid skin and eye contact. Keep Children, animals and expectant mothers away. Flammable Liquid Mixture. Do not smoke or have contact with any ignition source. Closed containers may rupture under extreme heat or when contents have been contaminated with water. Use cold water spray to cool fire exposed containers to minimize the risk of rupture. Harmful if inhaled. May cause respiratory tract irritation. May cause allergic skin and respiratory reaction. Skin and Respiratory Sensitizers. Avoid eye contact.

ROUTES OF ENTRY: Inhalation, eyes, skin, ingestion

POTENTIAL HEALTH EFFECTS



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Acute Health Effects:

Inhalation: May produce symptoms of central nervous system depression that includes dizziness, nausea, headache, loss of balance and drowsiness. May irritate the mucous membrane in the respiratory tract (nose, lungs, and throat) with symptoms of runny nose, sore throat, coughing, chest discomfort, shortness of breath.

Skin: May cause irritation with symptoms of reddening, itching and swelling.

Eye: May cause irritation with symptoms of reddening, tearing, stinging and swelling. May cause temporary corneal injury. Vapors may cause irritation with burning and tearing.

Ingestion: May cause damage to the lining of the gastrointestinal tract. Ingestion and/or vomiting may cause aspiration into the lungs resulting in chemical pneumonitis (inflammation of lungs).

Chronic: **Inhalation:** Overexposures may develop sensitization to diisocyanates or polyisocyanates (asthma or asthma like condition). These symptoms includes chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be delayed up to several hours after exposure. Extreme asthmatic reactions can be life threatening. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Sensitization can be permanent. Chronic overexposure to diisocyanates has also been reported to cause lung damage (including fibrosis, decrease in lung function) that may be permanent.

Skin: Prolonged contact can cause reddening, swelling, rash, and in some cases skin sensitization.

Eye: Prolonged vapor contact may cause conjunctivitis.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Skin allergies, Eczema, Asthma, Respiratory disorder

Carcinogenicity: No carcinogenic substances are known to exist within the product component.

SECTION 4: FIRST AID MEASURES

EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Use fingers to ensure that eyelids are separated and the eye is being properly irrigated. If contact lenses are worn, then remove them after initial rinse, then continue eye irrigation for additional 15 minutes. Get medical help promptly.

SKIN: Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothes before reuse. If irritation persists, get medical attention. Do not wear contaminated shoes.

INGESTION: Do not induce vomiting. Wash mouth out with water. DO not give anything by mouth to an unconscious person. Get medical attention.

INHALATION: Move person to fresh air area. Get medical attention promptly. If person has breathing difficulty, administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: This product contains Hexamethylene Diisocyanate. In case of contact:

EYE: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision.

Skin: This product contains ingredient that may cause skin sensitization. Treat symptomatically as for contact dermatitis or thermal burn.

Ingestion: Threat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of irritating nature of the compound.

Inhalation: Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.

SECTION 4 NOTES: Note to physician has been extracted from the MSDS of the diisocyanate ingredient.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: NE
(% BY VOLUME) LOWER: NE

FLASH POINT: 115F - 120°F **METHOD USED:** Pensky Marten Open Cup

AUTOIGNITION TEMPERATURE: No data



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HMIS HAZARD CLASSIFICATION

HEALTH: 2*

FLAMMABILITY: 2

REACTIVITY: 1

*=chronic health hazard

EXTINGUISHING MEDIA: Dry Chemical, carbon dioxide, foam, water spray for large fires.

SPECIAL FIRE FIGHTING PROCEDURES: Fire Fighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots, and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, toxic gases may be generated by thermal decomposition or combustion.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed container may rupture under extreme heat or when contents are contaminated with water (CO₂ is formed). Use cold water spray to cool fire exposed containers to minimize the risk of rupture.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of Nitrogen's, carbon monoxide. Carbon dioxide, traces of hydrogen cyanide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: In case of spill, damaged containers, and leak, collect in a container. Eliminate ignition sources. Ventilate the area. Clean-up personnel should wear appropriate equipment and clothing. Clean the uncured material using solvent such as acetone. If material is cured, scrape it off and collect in a waste disposal container. Large spills should be contained and by forming a dike

SECTION 6 NOTES: Do not close the waste disposal container air-tight. If, material may get contaminated, it can react and cause rupture of the container.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: : Store in a cool and dry, well ventilated and covered location. Wear protective clothing and equipment. Use with adequate ventilation. Do not contaminate with water. Operators must check the drums before filling them with the solution. Do not use the drums if they are contaminated with water. Open containers should be used within a day or two since it will start skinning.

OTHER PRECAUTIONS: Individuals with existing respiratory disease such as chronic bronchitis, emphysema or asthma like conditions should not be exposed to isocyanates or related products during application and curing time. Do not drink, eat, or smoke while working with the product. Wash before such an activity. KEEP AWAY FROM CHILDREN. Keep away from ignition sources such as fire, flame, sparks etc

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION : General and local ventilation, if needed.

RESPIRATORY PROTECTION: Wear MSHA/NIOSH approved organic vapor or charcoal filtered cartridge respirator or positive pressure supplied air respirator with full face piece or an air-supplied hood.

EYE PROTECTION: Chemical tight goggles, full face shield in addition if splashing is possible.

SKIN PROTECTION: Nitrile, neoprene or butyl rubber gloves.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Tyvek, neoprene, butyl, and nitrile rubber based clothing have excellent resistance to solvents and Polyisocyanate based products. Provide eyewash station and safety showers in the work area. Provide emergency safety plans if regulations require. Give proper training of the usage and application of the products.

WORK HYGIENIC PRACTICES: Do not drink eat or smoke while working. Wash before doing so.

EXPOSURE GUIDELINES:

See section 2

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES



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APPEARANCE: Clear liquid mixture, self-leveling
ODOR: Mild
PHYSICAL STATE: Fluid, low viscosity, self-leveling
BOILING POINT: No data available
MELTING POINT: Not Applicable
VAPOR PRESSURE (mmHg): HDI Polyisocyanate: 9.3×10^{-6} @ 68F (20C)
VAPOR DENSITY (AIR = 1): greater than air
SPECIFIC GRAVITY (H₂O = 1): 1.22
EVAPORATION RATE: slower than 1
SOLUBILITY IN WATER: insoluble – reacts slowly with water to liberate CO₂ gas.
PERCENT SOLIDS BY WEIGHT: 54 +/- 1%
PERCENT VOLATILE: 46 +/- 1%
VOLATILE ORGANIC COMPOUNDS (VOC): 100 grams per liter minus exempt solvent (pcbtf)
VISCOSITY: 1000 cps max.

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions of use and storage.
CONDITIONS TO AVOID (STABILITY): Avoid moisture contact. Avoid high temperature.
INCOMPATIBILITY (MATERIAL TO AVOID): Avoid water, amines, strong bases, alcohols, copper alloys.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: By Fire and High Heat: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen's, Dense smoke, traces of hydrogen cyanide, isocyanic acid.
HAZARDOUS POLYMERIZATION: Contact with moisture and other materials that react with isocyanates or high temperatures.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: See section 2 table for toxicological information.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No data on entire product.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Waste disposal should be in accordance with existing federal, state and local environmental control laws. Incineration is preferred method.
Empty containers retain residue; observe all precautions for product. Do not cut or heat empty containers. If container is to be disposed, ensure all product residues are removed prior to disposal.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)
PROPER SHIPPING NAME: NOT REGULATED
HAZARD CLASS:
ID NUMBER:
PACKING GROUP:
LABEL STATEMENT:

Resin Solution (Contains Para-Chlorobenzotrifluoride)

HAZARD CLASS: 3
ID NUMBER: UN 1866
PACKING GROUP: III
LABEL STATEMENTS: Flammable Liquid



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AIR TRANSPORTATION (IATA)

PROPER SHIPPING NAME: Resin Solution (Contains Para-Chlorobenzotrifluoride)

HAZARD CLASS: 3

ID NUMBER: UN 1866

PACKING GROUP: III

LABEL STATEMENTS: Flammable Liquid

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): All ingredients used to manufacture the product are listed in TSCA.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): None Known

SARA Section 311/312 HAZARD CATEGORIES: Acute Health Hazard, Chronic Health Hazard, Reactivity Hazard

US EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA TITLE III Section Extremely Hazardous Substance (40CFR 355, Appendix A): None

US EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA TITLE III Section 313 Toxic Chemicals (40CFR 372.65): None Known

STATE RIGHT TO KNOW Information:

California Proposition 65: To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

Homopolymer of Hexamethylene Diisocyanate (CAS # 28182-81-2): < =60%

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

Hexamethylene-1,6-Diisocyanate (CAS # 822-06-0) : < = 0.7%

SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION: 3/13/2012

DISCLAIMER:

A MSDS such as this cannot be expected to cover all possible individual situations. The end user of this product has the responsibility to provide a safe workplace. All aspects of an individual operation should be examined to determine if, or where, precautions – in addition to those described herein – are required. Any health and safety information contained herein should be passed on to your customers and/or employees.

The opinions expressed herein are those of qualified experts within Pacific Polymers. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and the use of this product are not within the control of Pacific Polymers final determination of suitability of this product is the sole responsibility of the user. It is the responsibility of the user to comply with all applicable Federal, State and Local laws and regulations.