



Epo-Crete SL Part A

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

GHS product identifier: Epo-Crete SL Part A

Other means of identification: Aromatic Isocyanate

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

Supplier's details: VANBERG SPECIALIZED COATINGS
10705 COTTONWOOD ST.
LENEXA, KS 66215
INFORMATION PHONE NUMBER: 913-599-5939

Emergency phone number: 1-800-255-3924

SECTION 2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Skin Corrosion/Irritation 2, Eye Damage/Irritation 2B, Acute Toxicity – Oral 4, Acute Toxicity – Inhalation 4

GHS label elements:



Signal Word: Warning

Hazard Statement: Causes skin irritation

Prevention: Wash hands thoroughly after handling. Wear protective gloves.

Response: If on skin: wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before reuse.



Signal Word: Warning

Hazard Statement: Causes eye irritation

Prevention: Flush eyes thoroughly after eye contact.

Response: If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.



Signal Word: Warning

Hazard Statement: Harmful if swallowed

Prevention: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

Response: If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth.

Disposal: Dispose of in accordance with federal, state, and local regulations.



Signal Word: Warning

Hazard Statement: Harmful if inhaled

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well ventilated area.

Response: If inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Other hazards which do not result in classification

NA

Hazards Material Information System (United States):

Health	2
Flammability	1
Physical Hazard	1

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

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Hazardous Components (Chemical Name)	CAS #	Concentration
Polymeric Diphenylmethane diisocyanate	9016-87-9	40-50%
4,4'-Diphenylmethane diisocyanate	101-68-8	35-45%
2,4'-Diphenylmethane diisocyanate	5873-54-1	10-20%
2,2'-Diphenylmethane diisocyanate	2536-05-2	1-5%

SECTION 4 – FIRST AID MEASURES

Description of necessary first-aid measures:

Eye Contact:

Remove contact lenses at once. Immediately flush eyes with large amounts of water or normal saline for at least 30 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. **Prompt medical attention is essential.**

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash clothing before reuse.

Inhalation:

Remove victim to fresh air if effects occur. If not breathing, give artificial respiration. **Get immediate medical attention.** Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours.

Ingestion:

Do not induce vomiting.

If patient is conscious and can swallow, give two cups of water or milk (16oz.). **Get immediate medical attention.** Never give anything by mouth to an unconscious or convulsing person.

Most Important symptoms/effects, acute and delayed:

Signs and Symptoms:

Irritation as noted above. Skin sensitization (allergy) may be evidenced by blisters, redness, or rashes, especially hives.

Aggravated Medical Conditions:

Preexisting skin and eye disorders may be aggravated by exposure to this product. Preexisting skin and lung allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

Other Health Effects:

Based on animal studies, repeated exposure to components of this product may cause damage to respiratory systems. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.

Indication of immediate medical attention and special treatment needed, if necessary:

Note to Physician:

Eyes:

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

Skin:

This product is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn.

Ingestion:

Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the product.

Inhalation:

This product is a known pulmonary sensitizer. Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material must be removed from any further exposure to any isocyanate.

Contact a Poison Control Center for additional treatment information. Health studies have shown that many petroleum hydrocarbons pose potential human health risks, which vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.

SECTION 5 – FIRE FIGHTING MEASURES

Suitable extinguishing media:

Use foam, dry chemical, water spray, or CO₂.

Specific hazards arising from the chemical:

Flash Point is >300° F. Closed containers may explode when exposed to extreme heat or burst when contaminated with water (CO₂ evolved).

Special protective actions for fire-fighters:

Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition. Use water spray to cool fire-exposed surfaces and to protect personnel. Try to cover liquid spills with foam. Solvent vapors are heavier than air and may travel a considerable distance where they may linger and/or find an ignition source and flash back.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Evacuate nonessential personnel. Ventilate the area. Avoid breathing vapor. Use self-contained breathing apparatus or supplied air for large spills or confined areas.

Methods and materials for containment and clean up:

Contain spill if possible. Prevent entry into sewers and waterways. Cover spill with sawdust, vermiculite, Fuller's earth, or other absorbent material. Pour decontamination solution over spill area and allow reacting for at least 10 minutes. Collect material in open containers and add further amounts of decontamination solution. Remove containers to a safe place, cover loosely, and allow to stand for 24 to 48 hours. Wash down spill area with decontamination solutions. Decontamination Solutions: 1. nonionic surfactant Union carbide's Tergitol TMN-10 (20%) and water (80%). 2. concentrated ammonia (3-8%), detergent (2%), and water (90-95%). Dispose of in accordance with federal, state, and local regulations.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling: Ground all transfer equipment. Take precautionary measures against static discharge. Handle as an industrial chemical.

Conditions for safe storage, including any incompatibilities:

Ground all transfer equipment. Take precautionary measures against static discharge. Handle as an industrial chemical. Keep container tightly closed when not in use to prevent moisture contamination. Do not reseal if contamination is suspected. Practice good caution and personal cleanliness to avoid skin and eye contact. Hold bulk storage under nitrogen blanket. Store in a cool (between 77 and 95° F), dry place with adequate ventilation. Product quality is negatively affected outside this temperature range.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Hazardous Components (Chemical Name)	CAS #	PERCENT	EXPOSURE LIMITS	SOURCE
Polymeric Diphenylmethane diisocyanate	9016-87-9	40-50	Not established	N/A
4,4'-Diphenylmethane diisocyanate	101-68-8	35-45	0.02 ppm Ceiling Limit Value 0.005 ppm TLV/TWA	OSHA ACGIH

2,4'-Diphenylmethane diisocyanate	5873-54-1	10-20	Not established	N/A
2,2'-Diphenylmethane diisocyanate	2536-05-2	1-5	Not established	

Appropriate engineering controls: N/A

Individual protection measures, such as personal protective equipment:

Respiratory Protection:

Provide adequate ventilation. Avoid breathing of vapors or mists. Airborne concentrations should be kept to lowest levels possible. When exposures are not adequately controlled, use a respirator approved for use in isocyanate environments. Selection of air purifying or positive-pressure supplied air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Protective Clothing: Contact Lenses should not be worn.

Precautions should be taken so that persons handling this product do not breathe the vapors or have it contact the eyes or skin. In spray operations, protection must be afforded against exposure to both vapor and spray mist. Protective clothing such as uniforms, coveralls, or lab coats must be worn. Launder or dry-clean when soiled. Gloves and goggles resistant to chemicals and petroleum distillates are required. If skin creams are used, keep the area protected only by the cream to a minimum. When handling large quantities, impervious suits, gloves, and rubber boots must be worn.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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

Odor: earthy, musty

Odor threshold: N/A

pH: Not determined

Melting point/freezing point: N/A

Initial boiling point and boiling range: >300 °C

Flash Point: 229 °C

Evaporation rate: 1 (for solvent)

Flammability (solid, gas): N/A

Upper/lower flammability or explosive limits: Not established

Vapor pressure: < 0.00001 mm/Hg @ 77 °F for MDI

Vapor Density:

Relative density (specific gravity): 1.23

Solubility(ies): Insoluble - reacts slowly with water to liberate CO₂ gas.

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

Auto-ignition temperature: N/A

Decomposition temperature: Polymerises at about 200 °C with evolution of CO₂

Viscosity: N/A

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:

N/A

Chemical stability:

Stable under normal conditions.

Possibility of hazardous reactions:

May occur. Contact with moisture or other materials which react with isocyanates or temperatures over 400 °F (204 °C) may cause polymerization.

Conditions to avoid:

Keep from freezing. Avoid moisture. Keep away from oxidizing agents and open flame.

Incompatible materials:

Isocyanates will react with materials containing active hydrogen such as water, alcohols, ammonia, amines, alkalis, and acids. The reaction with water (including humid conditions) is accelerated in the presence of alkalis, tertiary amines, and metal compounds. Some reactions can be violent. Iron, zinc, aluminum and their compounds will catalyze product decomposition.

Hazardous decomposition products:

By heat and fire -- carbon monoxide, carbon dioxide, oxides of nitrogen, other hazardous materials, and smoke are all possible.

SECTION 11 – TOXICOLOGICAL INFORMATION

Likely routes of exposure:

N/A

Symptoms related to the physical, chemical and toxicological characteristics:**Eye Contact:**

Irritating and will injure eye tissue if not removed promptly. Prolonged vapor contact may cause conjunctivitis.

Skin Contact:

Isocyanates react with skin protein and moisture and can cause severe irritation. Has been known to cause allergic skin reaction in humans. Prolonged contact may cause blisters. Cured material is difficult to remove.

Inhalation:

High vapor concentrations are irritating to the eyes and respiratory tract causing runny nose, sore throat, coughing, chest discomfort, shortness of breath, and reduced lung function (breathing obstruction). The solvent vapors are anesthetic, cause headaches and dizziness and may have other central nervous system effects, including death. As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma), which will cause them to react to a later exposure to isocyanate at levels well below the TLV. Sensitization may be either temporary or permanent.

Ingestion:

Can result in irritation and possible corrosive action in the mouth, stomach tissue, and digestive tract. Vomiting may cause aspiration of the solvent resulting in chemical pneumonitis.

Delayed and immediate effects and also chronic effects from short and long term exposure: N/A

Numerical measures of toxicity:

INGREDIENT NAME	CAS #	%	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
Polymeric Diphenylmethane diisocyanate	9016-87-9	40-50	>2000 mg/kg (rat)	Slightly irritating (rabbit)	490 mg/m ³ (rat)
4,4'-Diphenylmethane diisocyanate	101-68-8	35-45	9,200 mg/kg (rat)	10,000 mg/kg (rabbit)	369 mg/m ³ (rat)
2,4'-Diphenylmethane diisocyanate	5873-54-1	10-20	No data	No data	No data
2,2'-Diphenylmethane diisocyanate	2536-05-2	1-5	No data	No data	No data

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:

N/A

Persistence and degradability:

N/A

Bioaccumulative potential:

N/A

Mobility in soil:

N/A

Other adverse effects:

N/A

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal methods:

Dispose of in accordance with federal, state, and local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

UN number:

UN3082

UN proper shipping name:

Other Regulated Substances, Liquid, NOS, (4,4'Diphenylmethane Diisocyanate), 9, III

Transport hazard class(es):

9

Packing group, if applicable:

III

Environmental hazards:

N/A

Transport in bulk:

N/A

Special precautions for user:

N/A

SECTION 15 – REGULATORY INFORMATION

Safety, health and environmental regulations:

Not meant to be all-inclusive. Selected regulations presented.

SARA Title III Section 311/312 hazards: Immediate health hazard, delayed health hazard, reactive hazard

TSCA Status: Listed on TSCA Inventory

OSHA Hazard Comm. Std.: See Section 2

CA = California Haz. Subst. List; CA65 = California Safe Drinking Water and Toxics Enforcement Act List; CT = Connecticut Tox. Subst. List; FL = Florida Subst. List; IL = Illinois Tox. Subst. List; LA = Louisiana Haz. Subst. List; MA = Massachusetts Subst. List; ME = Maine Haz. Subst. List; MN = Minnesota Haz. Subst. List; NJ = New Jersey Haz. Subst. List; NJ2 = New Jersey Other; PA = Pennsylvania Haz. Subst. List; PA2 = Pennsylvania Non-hazardous present at 3% or Greater; RI = Rhode Island Haz. Subst. List.

SECTION 16 – OTHER INFORMATION

Date of Preparation: 02/20/2016

To the best of our knowledge, the information contained herein is accurate. Final determination of the suitability of any material is the sole responsibility of the users. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein; we cannot guarantee that these are the only hazards which exist.