

MSDS

Material Safety Data Sheet

May 14, 2000

Revised: 7/03

PRODUCT NAME: EPOXYSYSTEMS' PRODUCT #452

ITEM NUMBER: #452

DESCRIPTION: POLYURETHANE WATERPROOFING BASECOAT

HMIS CODES:	H:*	2	F:	2	R:	1	P:	G
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SECTION I - IDENTIFICATION

MANUFACTURER'S NAME: Epoxy Systems, Inc.

9370 SW 208th CIR Dunnellon, FL 34431

Telephone: 352-489-1666

EMERGENCY PHONE NO: 1-800-633-8253

SECTION II-HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS / CAS #	OSHA PEL	ACGIH TLV	OSHA STEL	LD50/LC50	WT %
Aromatic Polyurethane polymer # Mixture	No data available	No data available	No data available	No data available	50 - 65 %
Aromatic Petroleum Naptha # 64742-95-6	100 ppm	100ppm/ TWA	150ppm	LD: 4.7g/kg (rat, dermal) LC: >3370 ppm/8hrs (rat)	1 - 10 %
*Residual trace amount of Toluene Diisocyanate # 26471-62-5	0.005ppm	0.005ppm	0.02 ppm	LD: >2g/kg (rat, dermal) LD: 5.8g/kg (oral, rat) LC: 10ppm/4hrs (mouse)	< 0.16 %
Aliphatic Hydrocarbons (Stoddard Type) #8052-41-3	100ppm	100ppm/TWA`	150ppm	N.av.	10 - 20%

All Chemicals comprising this product are listed on the Toxic Substance Control Act (TSCA) inventory.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	300°F - 550°F
Vapor Density	Greater than air
Specific Gravity (H2O=1)	1.15 - 1.3
Evaporation Rate	Less than 1.0 (butyl Acetate = 1.0)
Solubility in water	Reacts slowly with water
Appearance and odor	tan / concrete gray/white. Aromatic odor, solvent based coating.
	VOC → 175 grams per liter

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point	120°F (COC)
Flammable limits in air by volume	LEL: 0.7% : UEL: 6.0%
Extinguishing media	Dry chemical foam, carbon dioxide, halogenated agents. If water is used, use very large quantities. The reaction between water and hot isocyanate may be vigorous.
Special Firefighting Procedures	Wear self-contained breathing apparatus with full facepiece and protective clothing.
Unusual Fire and Explosion Hazards	Water contamination will produce carbon dioxide. Do not reseal contaminated containers as pressure buildup may result in rupturing of the container.

SECTION V - REACTIVITY DATA

Stability	Stable under normal conditions.
Conditions to avoid	Avoid water contact, alcohol, amines, acids and alkalis.
Incompatibility (Materials to avoid)	This material will react with any materials containing active hydrogen group such as water, alcohol's, ammonia, amines, alkalis and acids.
Hazardous Decomposition or Byproducts	Combustion products: carbon dioxide, carbon monoxide, and nitrogen oxides trace amounts of hydrogen cyanide.
Hazardous Polymerization	May occur. High temperatures in the presence of alkalis, amines, and metal compounds will accelerator polymerization. Possible evolution of carbon dioxide gas may rupture closed containers.

SECTION VI - HEALTH HAZARD DATA

Health risks and symptoms of exposure

Inhalation	Coughing, tightness in chest with difficulty in breathing, irritation to respiratory tract.
Skin Contact	Skin irritation causing redness itching, rash.
Eye Contact	Irritation to eyes causing reddening and itching.
Skin Absorption	No data available
Ingestion	May cause irritation of the mouth, pharynx, esophagus and stomach.

Health hazards (acute & chronic):

CARCINOGENICITY: NO; NTP? yes ; IARC MONOGRAPHS: NO ; OSHA REGULATED: NO

This product may contain trace amount of Toluene Diisocyanate (TDI). TDI is a material that may reasonably be anticipated to be a carcinogen based on a NTP technical report on rats. In the cited study, laboratory animals gavaged TDI in corn oil developed tumor.

Medical conditions generally aggravated by exposure: Prolonged and repeated exposure may result to respiratory sensitization, asthma like conditions, central nervous depression (dizziness, nausea, headache etc), skin sensitization and allergic skin reactions (rashes, hive-like, acme's, itching, etc.)

Emergency & First Aid Procedures

Eyes	Immediately flush with plenty of water for at least 15 minutes. Keep eyelids open. Consult a physician immediately.
Skin	Wash material off with plenty of soap and water. If redness, itching or burning develops, consult a physician.
Inhalation	Remove person to fresh air. If not breathing, give artificial respiration. If breathing is labored, give oxygen. Get medical help immediately. Do not give any food or liquids to an unconscious person.
Ingestion	Give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, get medical help immediately. (Do not give anything by mouth to an unconscious person).

SECTION VII - SAFE HANDLING & USE INFORMATION

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wear protective equipment and clothing during cleanup. Soak up material with absorbent and shovel into a chemical waste container. Cover the container but do not seal, and remove from work area. Use decontamination solution of 0.5% liquid detergent, 3 – 8 % concentrated ammonium hydroxide and remaining water. Clean the area off spill with the solution.

WASTE DISPOSAL METHOD. Neutralize the waste with the decontamination solution. Let it stand for 48 hours, allowing carbon dioxide to vent away. Dispose the waste in accordance to federal, local, and state regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Prevent skin and eye contact. Avoid breathing vapors and mist. A sensitized person should not be allowed to exposed to the product. Store in tightly sealed containers to protect from atmospheric moisture. Store in dry area.

OTHER PRECAUTIONS: Individuals with existing respiratory disease such as chronic bronchitis, emphysema or asthma like conditions should not be exposed to polyisocyanates or related products. 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 VIII - CONTROL MEASURES/PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use MSHA/NIOSH approved positive pressure supplied air respirator with full facepiece or an air-supplied hood for enclosed areas and where ventilation is poor. Otherwise use of approved organic vapor or charcoal filtered dual cartridge respirator for other applications is highly advisable.

VENTILATION: local and or mechanical exhaust.

PROTECTIVE GLOVES: Nitrile, neoprene, and butyl rubber gloves.

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

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: WORK/HYGIENIC PRACTICES: Tyvek, neoprene, butyl, nitrile rubber based clothing have excellent resistance to solvents and Polyurethane based products. Provision of Eyewash station and safety showers in the work area highly advisable. Provide Emergency safety plans if regulations require and proper training of the usage and application of the products.

SECTION IX – REGULATORY INFORMATION

Transportation: DOT Ground: Non-Regulated;

DOT Air: Paint, Flammable Liquid, UN1263, Class 3, PG III, ERG 127

DOT Marine: Paint, Flammable Liquid, UN1263, Class 3, PG III ERG 127.

Sara Title III (Section 313 Toxic Chemical Information):

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Concentration</u>
Toluene Diisocyanate	26471-62-5	trace amount

California Proposition 65:

As per requirements of the Safe Drinking Water & Toxic Enforcement Act of California, USA (1986), the public is warned that materials used in this product may create an exposure to chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. This warning is required by Section 25249.6 of the California Health and Safety Code.

{The following detectable components of this product are substances, or belong to classes of substances, known to the state of California to cause cancer and /or reproductive toxicity.}

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Concentration</u>
Toluene Diisocyanate	26471-62-5	trace amount

HMIS Ratings: Health: 2
Flammability: 2
Reactivity: 1
Protection: G (gloves, goggles, coverall/apron, respirator)

WHMIS Rating (Canada): Class B, Division 3, Class D, Division 2, Subdivision B.

Disclaimer: The data set forth in this MSDS are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. EpoxySystems, Inc. makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereof.