Epoxy.com Product #424
MATERIAL SAFETY DATA SHEETS

I. PRODUCT AND COMPANY IDENTIFICATION

Company: Epoxy Systems, Inc.
Address: 20774 W. Pennsylvania Ave.
Dunnellon, FL 34431

Product Name: **A Component: Epoxy.com Product #424**

Product Description: Polymeric Grout

Emergency Contact No.: 1-800-633-8253 **(PERS)**

Date Prepared or Revised: May 2013
For most current MSDS, please visit our website at www.epoxy.com

II. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Names	CAS Numbers
Polyether Polyol Blend	Mixture
Polysiloxane	N/A
Triethylenediamine	280-57-9

The remaining ingredients are designated as "trade secret".

III. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Non-corrosive.
May cause eye and skin irritation.
May cause skin sensitization.

POTENTIAL HEALTH EFFECTS

ACUTE

Eye Contact: May cause eye irritation, swelling, tearing, redness or cornea damage.
Skin Contact: Moderate irritation. May cause skin sensitization, evidenced by rashes and hives.
Inhalation: Moderate irritation to the nose and respiratory tract. May cause Central Nervous System depression, evidenced by headache, dizziness, and nausea.
Ingestion: May cause irritation to the gastrointestinal tract. May cause Central Nervous System depression or other systemic effects.
Systemic Effects: Lungs, eyes, and skin.

IV. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. If redness, burning, blurred vision, or swelling persists, **CONSULT A PHYSICIAN**.

Skin Contact: Remove product and immediately wash affected area with soap and water. Do not apply greases or ointments. Remove contaminated clothing. Wash clothing with soap and water before reuse. If redness, burning, or swelling persists, **CONSULT A PHYSICIAN**.

Ingestion: **DO NOT INDUCE VOMITING**. Never administer anything by mouth to an unconscious person. Rinse out mouth with water, then drink sips of water to remove taste from mouth. **CONSULT A PHYSICIAN** if vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Inhalation: Remove patient to fresh air. If patient continues to experience difficulty breathing, **CONSULT A PHYSICIAN**.

V. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Water fog, carbon dioxide or dry chemical, aqueous foam.

Fire And Explosion Hazard: Hazardous decomposition products may occur when materials polymerize at temperatures above 500°F. Do not allow run-off from fire fighting to enter drains or water courses.

Fire Fighting Equipment and Procedures: Wear full protective clothing and self-contained breathing apparatus for fire fighting. Isolate fuel supply from fire. Clear fire area of all non-emergency personnel. Use water spray to cool fire-exposed surfaces and containers.

VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use cautious judgment when cleaning up spill. Shut off leaks, if possible without personal risk. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.

Environmental Precautions: Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils.

Clean-up Methods: **Small spills**: Soak up with absorbent material such as clay, sand or other suitable non-reactive material. Place in leak-proof containers. Seal tightly for proper disposal. **Large spills**: Approach suspected leak areas with caution. Create a dike or trench to contain material. Soak up with absorbent material such as clay, sand or other suitable non-reactive material. Place in leak-proof containers. Seal tightly for proper disposal.

Additional Information: Notify authorities if any exposures to the general public or environment occur or are likely to occur. Dispose in accordance with federal, state, and local regulations.

VII. STORAGE AND HANDLING

Storage: Keep away from: acids, oxidizers, heat, or flames. Keep in cool, dry, well-ventilated area in closed containers. Protect containers from physical damage.

Handling: To prevent skin and eye contact under the foreseeable conditions of use, wear appropriate protective clothing and safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling. Avoid breathing fumes. Handle in a well-ventilated work area.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

Protective Measure: Wear appropriate personal protective equipment.

Eye Protection: Avoid contact with eyes. Wear chemical splash goggles or safety glasses with side shield.

Hand Protection: Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.

Skin and Body Protection: Wear chemical-resistant gloves and other clothing as required to minimize contact.

Respirator Protection: Not required for properly ventilated areas.

Exposure Limits:

COMPONENT	ACGIH (TLV)	OSHA (PEL)
Polyether Polyol	N/E	N/E
Triethylenediamine	N/E	N/E

IX. PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid
Color: Brown
Odor: Sweet
Vapor Pressure: Not Volatile
Boiling Point: >500˚F (> 260˚C)
Freezing Point: N/E
Flash Point: >220°F
Specific Gravity: 1.07 @ 75°F
Solubility In Water: Insoluble

X. REACTIVITY DATA

Stability: Stable under normal storage conditions.
Conditions To Avoid: Incompatible chemicals, high heat and open flame.
Materials To Avoid: Oxidizing agents, acids, organic bases, and amines.
Hazardous Decomposition Products: Combustion may produce carbon monoxide, carbon dioxide, aldehydes, acids and other organic substances.
Hazardous Polymerization: Will not occur.

XI. TOXICOLOGICAL PROPERTIES

Acute Oral (LD_{50}, Rat): N/E
Acute Dermal (LD_{50}, Rabbit): N/E
Acute Inhalation (LC_{50}, Rat): N/E

Chronic Health Hazard: Symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways)

XII. DISPOSAL CONSIDERATIONS

Waste From Residues / Unused Products: This material is not a hazardous waste by RCRA criteria (40 CFR 261). Dispose of container and unused contents in accordance with federal, state, and local requirements.

XIII. TRANSPORTATION

DOT: Not Regulated For Transport
ICAO/IATA: Not Regulated For Transport
IMO: Not Regulated For Transport

XIV. REGULATORY INFORMATION

Country	Regulatory List
USA	TSCA

EPA SARA Title III Section 312 (40 CFR 370) Hazardous Classification: Acute/Chronic Health Hazard.
EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level: None.
US. California "Safe Drinking Water and Toxic Enforcement Act" (Proposition 65): This product does not contain chemicals that are known to the State of California to cause cancer and/or reproductive toxicity and other harzard

XV. OTHER INFORMATION

HMIS RATING

Health	Flammability	Physical Hazard
1	1	0

N/E – Not Established

This Material Safety Data Sheet (MSDS) is prepared by Epoxy Systems, Inc. in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this MSDS. This MSDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is given. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

I. PRODUCT AND COMPANY IDENTIFICATION

Company:	Epoxy Systems, Inc.
Address:	20774 W. Pennsylvania Ave. Dunnellon, FL 34431
Product Name:	**B Component: Epoxy.com Product #424**
Product Description:	Polymeric Grout
Emergency Contact No.:	1-800-633-8253 **(PERS)**
Date Prepared or Revised:	May 2013 For most current MSDS, please visit our website at www.epoxy.com

III. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Names	CAS Numbers
4,4'-Methylenediphenyl diisocyanate	101-68-8
Diphenylmethane Diisocyanate (MDI) Isomers and homologues	9016-87-9

III. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Causes respiratory tract irritation. May cause allergic respiratory reaction. Harmful if inhaled. Respiratory sensitizer. Lung damage and respiratory sensitization may be permanent. Causes skin irritation. May cause allergic skin reaction. Skin sensitizer. Animal tests and other research indicate that skin contact with MDI can play a role in causing isocyanate sensitization and respiratory reaction. Causes eye irritation. May cause lung damage

POTENTIAL HEALTH EFFECTS

ACUTE

Inhalation: As a result of previous repeated overexposures or a single large dose, certain individuals may develop sensitization to diisocyanates (asthma or asthma-like symptoms) that may cause them to react to a later exposure to diisocyanates at levels well below the TLV or PEL. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure. Extreme asthmatic reactions can be life threatening. Similar to many nonspecific 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 Contact:

Chronic Skin Prolonged contact can cause reddening, swelling, rash, and, in some cases, skin sensitization. Animal tests and other research indicate that skin contact with MDI can play a role in causing isocyanate sensitization and respiratory reaction. This data reinforces the need to prevent direct skin contact with isocyanates.

Eye Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor or aerosol may cause irritation with symptoms of burning and tearing.

Systemic Effects: Lungs, eyes, and skin.

Carcinogenicity: No Carcinogenic substances as defined by IARC, NTP and/or OSHA

IV. FIRST AID MEASURES

Eye Contact:	Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. If redness, burning, blurred vision, or swelling persists, **CONSULT A PHYSICIAN**.
Skin Contact:	Remove product and immediately wash affected area with soap and water. Do not apply greases or ointments. Remove contaminated clothing. Wash clothing with soap and water before reuse. If redness, burning, or swelling persists, **CONSULT A PHYSICIAN**.

Ingestion: **DO NOT INDUCE VOMITING**. Never administer anything by mouth to an unconscious person. Rinse out mouth with water, then drink sips of water to remove taste from mouth. **CONSULT A PHYSICIAN** if vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Inhalation: Remove patient to fresh air. If patient continues to experience difficulty breathing, **CONSULT A PHYSICIAN**.

Notes to Physician: Eyes: 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 compound is a 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 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 diisocyanatc.

V. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Water fog, carbon dioxide or dry chemical, aqueous foam.

Fire And Explosion Hazard: Closed container may forcibly rupture under extreme heat or when contents are contaminated with water (CO_2 formed.) Use cold-water spray to cool fire exposed containers to minimize the risk of rupture. Large fires can be extinguished with large volumes of water applied from a safe distance, since reaction between water and hot diisocyanate can be vigorous.

Fire Fighting Equipment and Procedures: Wear full protective clothing and self-contained breathing apparatus for fire fighting. Isolate fuel supply from fire. Clear fire area of all non-emergency personnel. Use water spray to cool fire-exposed surfaces and containers.

VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use cautious judgment when cleaning up spill. Shut off leaks, if possible without personal risk. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas. Isolate the area and prevent access. Remove ignition sources. Notify management. Put on protective equipment. Control source of the leak. Ventilate. Contain the spill to prevent spread into drains, sewers, water supplies, or soil.

Environmental Precautions: Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils. Remove ignition sources.

Clean-up Methods: **Small spills**: Soak up with absorbent material such as clay, sand or other suitable non-reactive material. Place in leak-proof containers. Seal tightly for proper disposal.

Large spills: Approach suspected leak areas with caution. Create a dike or trench to contain material. Neutralize with a solution such as Colorimetric Laboratories, Inc. decontamination solution. Place in leak-proof containers. Seal tightly for proper disposal.

Additional Information: Notify authorities if any exposures to the general public or environment occur or are likely to occur. Dispose in accordance with federal, state, and local regulations.

Additional Spill Procedures/Neutralization

Neutralization solutions:
(1) Colorimetric Laboratories Inc. (CLI) decontamination solution.
(2) A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.

VII. STORAGE AND HANDLING

Storage: Keep away from: acids, oxidizers, heat, or flames. Keep in cool, dry, well-ventilated area in closed containers. Protect containers from physical damage.

Handling: To prevent skin and eye contact under the foreseeable conditions of use, wear appropriate protective clothing and safety eyewear. When handling do not eat, drink, or smoke. Wash thoroughly after handling. Avoid breathing fumes. Handle in a well-ventilated work area.

IX. EXPOSURE CONTROLS / PERSONAL PROTECTION

Protective Measure: Wear appropriate personal protective equipment.
Eye Protection: Avoid contact with eyes. Wear chemical splash goggles or safety glasses with side shield.
Hand Protection: Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.
Skin and Body Protection: Wear chemical-resistant gloves and other clothing as required to minimize contact.
Respirator Protection: Not required for properly ventilated areas.
Exposure Limits:

COMPONENT	ACGIH (TLV)	OSHA (PEL)
Diphenylmethane Diisocyanate (MDI) Mixed Isomers	0.005 ppm	.5 ppm

IX. PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid
Color: Yellow
Odor: Slight, Odorless
Vapor Pressure: MDI Polyisocyanate, 5.2×10^{-9} @68^{o}F (20^{o}C) mmHg
Boiling Point: N/A
Freezing Point: N/A
Flash Point: 420^{o}F (216^{o}C)
Specific Gravity: 1.24 @ 75 F
Solubility In Water: Insoluble – reacts slowly with water to release CO2 gas

X. REACTIVITY DATA

Stability: Stable under normal storage conditions.
Conditions To Avoid: Avoid heat, flames, sparks and other sources of ignition. Avoid contact with moisture/water.
Materials To Avoid: Water, Amines, Strong Bases, Alcohols, Copper Alloys
Hazardous Decomposition Products: By fire and heat. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke, Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undermined compounds.
Hazardous Polymerization: Contact with moisture, other materials that react with isocyanates, or temperatures about 350^{o}F (177^{o}C), may cause polymerization.

XI. TOXICOLOGICAL PROPERTIES

Toxicity NoteToxicity data based on polymeric MDI.
Acute oral toxicity LD50: > 2,000 mg/kg (rat, Male/Female)
Acute inhalation toxicityLC50: 490 mg/m3, 4 h (rat)
Skin irritation rabbit, Slightly irritating
Repeated dose toxicity 90 Days, inhalation: NOAEL: 1 mg/m3, (rat, Male/Female, 6 hrs/day 5 days/week)
Irritation to lungs and nasal cavity.
2 years, inhalation: NOAEL: 0.2, (rat, Male/Female, 6 hrs/day 5 days/week)
Irritation to lungs and nasal cavity.

XII. DISPOSAL CONSIDERATIONS

Waste From Residues / Unused Products: This material is not a hazardous waste by RCRA criteria (40 CFR 261). Dispose of container and unused contents in accordance with federal, state, and local requirements.

XIII. TRANSPORTATION

DOT: Proper shipping name: Other regulated substances, liquid, n.o.s. (contains 4,4'-Diphenylmethane Diisocyanate (MDI)) Hazard Class or Division: 9
UN/NA Number: NA3082 Packaging group: III Hazard Label(s): Class 9

ICAO/IATA: Not Regulated For Transport

IMO: Not Regulated For Transport

XV. REGULATORY INFORMATION

Country	Regulatory List
USA	TSCA

EPA SARA Title III Section 312 (40 CFR 370) Hazardous Classification: Acute/Chronic Health Hazard.
EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level:
4,4'-Diphenylmethane Diisocyanate (MDI)

US. California "Safe Drinking Water and Toxic Enforcement Act" (Proposition 65): This product does not contain chemicals that are known to the State of California to cause cancer and/or reproductive toxicity and other hazardous
Weight percent Components CAS-No.

XVI. OTHER INFORMATION

HMIS RATING

Health	Flammability	Physical Hazard
2	1	1

N/E – Not Established

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