

LMK Epoxy Adhesive for HDPE Part B

SAFETY DATA SHEET



MAINLINES | LATERALS | MANHOLES | GASKET SEALS | EQUIPMENT

Phone: (815) 433-1275 Email: info@lmktechnologies.com Web: lmktechnologies.com

Safety Data Sheet

Product Identifier: Epoxy Adhesive for HDPE Part B

SDS ID: MAN-012

Section 1 - IDENTIFICATION

Product Identifier:

Epoxy Adhesive for HDPE Part B

Recommended Use

adhesives / sealant

Restrictions on Use

None known.

Manufacturer Information

LMK Technologies
1779 Chessie Lane
Ottawa, IL 61350

Phone: (815) 433-1275

Emergency # (800) 424-9300

Section 2 - HAZARD(S) IDENTIFICATION

Classification in accordance with 29 CFR 1910.1200.

Skin corrosion/irritation, Category 2

Eye Damage / Irritation, Category 2A

Skin sensitizer, Category 1

Hazardous to the Aquatic Environment - Chronic Hazard, Category 2

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

WARNING

Hazard Statement(s)

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction

Toxic to aquatic life with long lasting effects

Precautionary Statement(s)

Prevention

Avoid breathing dust, mist, fumes or vapors. Wash thoroughly after handling. Wear protective gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

Response

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. 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. Collect spillage.

Storage

None needed according to classification criteria.

Safety Data Sheet

Product Identifier: Epoxy Adhesive for HDPE Part B

SDS ID: MAN-012

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component	Percent
1317-65-3	Calcium Carbonate	30-40
Trade Secret	Epoxy Resins	30-40
1333-86-4	Carbon black	<0.1

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Bisphenol A diglycidyl ether.

Section 4 - FIRST-AID MEASURES

Description of Necessary Measures

Inhalation

If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact

Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye Contact

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.

Ingestion

If a large amount is swallowed, get immediate medical attention.

Most Important Symptoms/Effects

Acute

skin irritation, eye irritation, allergic skin reactions

Delayed

allergic skin reactions

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Treat symptomatically and supportively.

Section 5 - FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

None known.

Special Hazards Arising from the Chemical

Hazardous Combustion Products

Combustion: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Special Protective Equipment and Precautions for Firefighters

May burn, but does not ignite readily.

Fire Fighting Measures

Move material from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Use extinguishing agents appropriate for surrounding fire. Dike for later disposal. Stay upwind and keep out of low areas. Avoid inhalation of material or combustion by-products.

Safety Data Sheet

Product Identifier: Epoxy Adhesive for HDPE Part B

SDS ID: MAN-012

Protective Equipment and Precautions for Firefighters

Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Keep unnecessary people away, isolate hazard area and deny entry. Only personnel trained for the hazards of this material should perform clean up and disposal.

Methods and Materials for Containment and Cleaning Up

Ventilate closed spaces before entering. Do not touch spilled material. Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Do not handle until all safety precautions have been read and understood. Avoid breathing dust or vapor. Avoid contact with skin and eyes. Do not eat, drink, or smoke when using this product. Always wear recommended personal protective equipment. Wash thoroughly after handling. Contaminated clothing should be removed and laundered before reuse.

Conditions for Safe Storage, including any Incompatibilities

Store and handle in accordance with all current regulations and standards. Store in a well-ventilated area. Store in a cool, dry place. Avoid contact with temperatures above 120 °F. Keep container tightly closed. Keep separated from incompatible substances.

Incompatibilities: strong acids, strong bases, strong oxidizing materials

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Calcium Carbonate (1317-65-3)

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

NIOSH: 10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable dust)

Mexico 10 mg/m³ TWA LMPE-PPT
20 mg/m³ STEL [LMPE-CT]

Carbon black (1333-86-4)

ACGIH: 3 mg/m³ TWA (inhalable fraction)

OSHA: 3.5 mg/m³ TWA

NIOSH: 3.5 mg/m³ TWA; 0.1 mg/m³ TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)

Mexico 3.5 mg/m³ TWA LMPE-PPT
7 mg/m³ STEL [LMPE-CT]

Appropriate Engineering Controls

Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present.

Individual Protection Measures, such as Personal Protective Equipment

Eyes/Face Protection

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate chemical resistant clothing.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Safety Data Sheet

Product Identifier: Epoxy Adhesive for HDPE Part B

SDS ID: MAN-012

Respiratory Protection

Use an approved respirator if exposure limits are exceeded or if irritation develops or persists.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid	Appearance:	paste
Color:	Not available	Physical Form:	paste
Odor:	petroleum odor	Odor Threshold:	Not available
pH:	Not available	Melting Point:	Not available
Boiling Point:	Not available	Flash Point:	Not available
Decomposition:	Not available	Evaporation Rate:	Not available
OSHA Flammability Class:	Not available	Vapor Pressure:	Not available
Vapor Density (air = 1):	Not available	Density:	1.2 – 1.6
Specific Gravity (water = 1):	Not available	Water Solubility:	Negligible
Log KOW:	Not available	Coeff. Water/Oil Dist:	Not available
KOC:	Not available	Auto Ignition:	Not available
Viscosity:	varies	VOC:	Not available
Volatility:	Not available	Molecular Formula:	Not available

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials. Avoid elevated temperatures above 120 °F.

Incompatible Materials

strong acids, strong bases, strong oxidizing materials

Hazardous Decomposition Products

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Hazardous Decomposition

Combustion: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Section 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Epoxy Resins (Trade Secret)

Oral LD50 Rat 11400 mg/kg

Carbon black (1333-86-4)

Oral LD50 Rat >15400 mg/kg

Information on Likely Routes of Exposure

Inhalation

May cause respiratory irritation

Safety Data Sheet

Product Identifier: Epoxy Adhesive for HDPE Part B

SDS ID: MAN-012

Ingestion

Ingestion may cause irritation of the esophagus and gastrointestinal tract.

Skin Contact

May cause irritation of the skin. Repeated or prolonged contact may result in dermatitis. May cause an allergic skin reaction.

Eye Contact

May cause irritation of the eyes.

Immediate Effects

skin irritation, eye irritation, allergic reactions

Delayed Effects

allergic reactions

Medical Conditions Aggravated by Exposure

No data available.

Irritation/Corrosivity Data

Causes skin, eye and respiratory irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

May cause an allergic skin reaction.

Germ Cell Mutagenicity

No information available for the product.

Carcinogenicity

Bisphenol A diglycidyl ether is a component of the epoxy resins in this product. A 2 year bioassay in rats and mice exposed by dermal route to this chemical showed no evidence of carcinogenicity to the skin or other organs.

Component Carcinogenicity

Epoxy Resins (Trade Secret)

IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable), related to Bisphenol A diglycidyl ether)

DFG: Category 3A (could be carcinogenic for man, related to Bisphenol A diglycidyl ether)

Carbon black (1333-86-4)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

IARC: Monograph 93 [2010]; Monograph 65 [1996] (Group 2B (possibly carcinogenic to humans))

DFG: Category 3B (could be carcinogenic for man, inhalable fraction)

OSHA: Present

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration Hazard

No information available for the product.

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Component Analysis - Aquatic Toxicity

No LOEL ecotoxicity data are available for this product's components.

Safety Data Sheet

Product Identifier: Epoxy Adhesive for HDPE Part B

SDS ID: MAN-012

Persistence and Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility

No information available for the product.

Biodegradation

No information available for the product.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose in accordance with all applicable federal, state/regional and local laws and regulations.

Disposal of Contaminated Packaging

Dispose of properly. Recycle if possible.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION

US DOT Information

Not regulated as a hazardous material.

TDG Information

Not regulated as dangerous goods.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA 311/312 Hazardous Categories

Acute Health: Yes Chronic Health: Yes Fire: No Pressure: No Reactive: No

State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Calcium Carbonate	1317-65-3	No	Yes	Yes	Yes	Yes
Carbon black	1333-86-4	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Calcium Carbonate	1317-65-3	Yes	NSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes
Epoxy Resins	Trade Secret	Yes	DSL	No	Yes	Yes	Yes	Yes	Yes	Yes
Carbon black	1333-86-4	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

Summary of Changes

New SDS: 1.00

Safety Data Sheet

Product Identifier: Epoxy Adhesive for HDPE Part B

SDS ID: MAN-012

NFPA Ratings: Health: 2 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other Information

The information contained herein is based on data considered accurate which has been obtained from other companies and organizations.

End of Sheet MAN-012