

KELMAR® MERDEK Membrane Hardener - Part B

SECTION 1. IDENTIFICATION

Product Identifier	KELMAR® MERDEK Membrane Hardener - Part B
Other Means of Identification	N/A
Product Family	Epoxy Hardeners
Recommended Use	A water-proofing membrane used as part of an epoxy coating system.
Restrictions on Use	This product is designed as part of a system in 2 parts and must be mixed, according to manufacturer's instructions, with the appropriate partner product before use.
Manufacturer	R&D Technical Solutions Ltd., 7000 Davand Drive, Mississauga, ON, L5T 1J5, 905-795-9900, www.rdsolutions.ca
Emergency Phone No.	CANUTEC, 1-613-996-6666, 24 HR

SECTION 2. HAZARD IDENTIFICATION

Classification

Acute toxicity (Dermal) - Category 4; Skin corrosion - Category 1; Serious eye damage - Category 1; Skin sensitization - Category 1; Reproductive toxicity - Category 1B; Aspiration hazard - Category 1

Label Elements



Signal Word:

Danger

Hazard Statement(s):

- H302 Harmful if swallowed.
- H312 + H332 Harmful in contact with skin or if inhaled.
- H304 May be fatal if swallowed and enters airways.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H360 May damage fertility or the unborn child.

Precautionary Statement(s):

- P202 Do not handle until all safety precautions have been read and understood.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash hands and skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
- P330 Rinse mouth.
- P331 Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTRE or doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Cashew, nutshell liq.	8007-24-7	45.0-70.0		
N-(2-Aminoethyl)piperazine	140-31-8	10.0-30.0		
Diethylenetriamine	111-40-0	0.1-1.0		
Aminoethylethanolamine	111-41-1	0.1-1.0		

Notes

Any concentration shown as a range is to protect confidentiality or due to batch variations.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor. Asthmatic type symptoms may occur immediately or be delayed for several hours. Treatment is symptomatic.

Skin Contact

Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse with lukewarm, gently flowing water for 5 minutes. If skin irritation or a rash occurs, get medical advice or attention. Get medical advice or attention if you feel unwell or are concerned.

Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a Poison Centre or doctor.

Ingestion

Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Call a Poison Centre or doctor if you feel unwell.

Most Important Symptoms and Effects, Acute and Delayed

Aspiration hazard. May be drawn into the lungs if swallowed or vomited, causing severe lung damage. Death can result. Skin sensitizer. May cause an allergic skin reaction in some people.

Immediate Medical Attention and Special Treatment

Target Organs

Skin.

Special Instructions

Not applicable.

Medical Conditions Aggravated by Exposure

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Asthma, dermatitis.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media

Do not use direct water stream - may cause fire to spread.

Specific Hazards Arising from the Product

During a fire, smoke may contain the original material in addition to combustion products which may be toxic and/or irritating. Contain fire water runoff if possible - may cause environmental damage.

In a fire, the following hazardous materials may be generated: corrosive, oxidizing nitrogen oxides; very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

No special precautions are necessary.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Contaminated absorbent poses the same hazard as the spilled product.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not get in eyes, on skin or on clothing. Only use where there is adequate ventilation. Avoid generating vapours or mists. Avoid heating that will increase the amount of vapours. Avoid release to the environment.

Conditions for Safe Storage

Store in an area that is: cool, well-ventilated.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Not available.

Consult local authorities for provincial or state exposure limits.

Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

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Skin Protection

Chemical-resistant, impervious gloves which comply with an approved standard should be worn at all times when handling. Chemical resistant goggles must be worn.

Neoprene rubber, nitrile rubber.

Respiratory Protection

Not normally required if product is used as directed. During spraying, wear suitable respiratory equipment. In case of inadequate ventilation wear respiratory protection.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Yellowish brown liquid. Particle Size: Not applicable
Odour	Ammonia-like
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	> 102 °C (216 °F) (closed cup) (N-(2-Aminoethyl)piperazine)
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable (liquid).
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	0.955
Solubility	Practically insoluble in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)
Other Information	
Physical State	Liquid
Molecular Formula	Not available
Molecular Weight	Not available
Bulk Density	Not available
Surface Tension	Not available
Critical Temperature	Not available
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available
Saturated Vapour Concentration	Not available
VOC	<5 g/l-water

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

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Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

High temperatures. Prolonged exposure to air.

Incompatible Materials

Strong acids (e.g. hydrochloric acid), alcohols (e.g. ethanol), aldehydes (e.g. acetaldehyde), halogenated compounds (e.g. trichloroethylene), ketones (e.g. acetone), metals (e.g. aluminum).

Avoid contact with: aluminum alloys.

Hazardous Decomposition Products

Can include, but not limited to: corrosive, flammable ammonia, volatile amines.

SECTION 11. TOXICOLOGICAL INFORMATION

ATE values are calculated based on toxicity values of individual components of this product.

Likely Routes of Exposure

Skin contact; eye contact; inhalation; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Cashew, nutshell liq.		> 2000 mg/kg (rat)	2000 mg/kg
N-(2-Aminoethyl)piperazine	Not available	2140 mg/kg (rat)	866 mg/kg (rabbit)

LC50: No information was located.

Oral ATE_{mix} = 2119.51 mg/kg

Dermal ATE_{mix} = 1480.39 mg/kg

Skin Corrosion/Irritation

Human experience and animal tests show moderate or severe irritation. Symptoms include pain, redness, and swelling.

Serious Eye Damage/Irritation

Causes serious eye irritation based on skin irritation information. May irritate or burn the eyes. Permanent damage including blindness may result.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause severe nose and throat irritation.

Skin Absorption

May cause thermal burns. Symptoms may include redness, rash, swelling and itching. Prolonged or widespread skin contact may result in absorption of potentially harmful amounts.

Ingestion

May cause severe irritation or burns to the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard

May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Following skin contact: may cause dermatitis.

Respiratory and/or Skin Sensitization

No information was located for respiratory sensitization. Skin sensitizer. Can cause an allergic reaction (skin sensitization) based on animal tests. In sensitized people, contact with a very small amount of product can cause an allergic reaction. Symptoms include redness, rash, itching and swelling. This reaction can spread from the hands or arms to the face and body. Repeated exposure will make the reaction worse.

Carcinogenicity

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Chemical Name	IARC	ACGIH®	NTP	OSHA
Cashew, nutshell liq.	Not Listed		Not Listed	Not Listed

Not known to cause cancer.

Reproductive Toxicity

Development of Offspring

(N-(2-Aminoethyl)piperazine) animal studies show effects on the offspring.

Sexual Function and Fertility

(N-(2-Aminoethyl)piperazine) animal studies show effects on sexual function and/or fertility.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This product has not been tested. The toxicity value statements have been derived from the properties of individual components.

Ecotoxicity

May be harmful to aquatic life.

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Cashew, nutshell liq.	1000 mg/L			1300 mg/L
N-(2-Aminoethyl) piperazine	2190 mg/L (Pimephales promelas (fathead minnow); 96-hour; static)	58 mg/L (Daphnia magna (water flea); 48-hour; static)	> 1000 mg/L (Pseudokirchneriella subcapitata (algae); 72-hour)	

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations. The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user. This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground or into any body of water.

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SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN2735	Polyamines, Liquid, Corrosive N.O.S. (Ethyleneamine)	8	III
US DOT	UN2735	Polyamines, Liquid, Corrosive N.O.S. (Ethyleneamine)	8	III

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

SECTION 16. OTHER INFORMATION

SDS Prepared By Compliance & Documentation Coordinator

Phone No. 905-795-9900

Date of Preparation June 19, 2017

Date of Last Revision June 12, 2019

Revision Indicators The following SDS content was changed on June 12, 2019:
Section 1. Identification

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists
IARC = International Agency for Research on Cancer
NIOSH = National Institute for Occupational Safety and Health
NTP = National Toxicology Program
OSHA = US Occupational Safety and Health Administration

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).
Registry of Toxic Effects of Chemical Substances (RTECS®) database. Accelrys, Inc. Available from Canadian Centre for Occupational Health and Safety (CCOHS).

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