KELMAR® LME Hardener (Part B)

SECTION 1. IDENTIFICATION

Product Identifier	KELMAR® LME Hardener (Part B)
Other Means of Identification	N/A
Product Family	Epoxy Hardeners
Recommended Use	Industrial concrete coating.
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/Supplier Identifier	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 (Oral) - Category 4; Skin corrosion - Category 1B; Serious eye damage - Category 1; Skin sensitization - Category 1; Specific target organ toxicity (repeated exposure) - Category 2

Label Elements

Danger

Hazard Statement(s):

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

Precautionary Statement(s):

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing must not be allowed out of the workplace.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P314 Get medical advice or attention if you feel unwell.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
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.
P363 Wash contaminated clothing before reuse.

Storage:

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

P402 + P404 Store in a dry place. Store in a closed container.

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
cycloaliphatic amine		>10	
Alcohol		>25	
aliphatic amine		>10	

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

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). 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. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

Skin Contact

Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse skin with lukewarm, gently flowing water for at least 60 minutes. Immediately call a Poison Centre or doctor. DO NOT INTERRUPT FLUSHING. If it can be done safely, continue flushing during transport to hospital.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 60 minutes, while holding the eyelid(s) open. Remove contact lenses, if present, after the initial 5 minutes and continue rinsing. Immediately call a Poison Centre or doctor.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. 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.

First-aid Comments

If exposed or concerned, get medical advice or attention.

Most Important Symptoms and Effects, Acute and Delayed

May cause serious eye damage. May irritate or burn the eyes. Permanent damage including blindness may result. Skin sensitizer. May cause an allergic skin reaction in some people. Can harm the nervous system. Can harm the liver.

Immediate Medical Attention and Special Treatment

Target Organs

This product is unlikely to target specific organs. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Special Instructions

Not applicable.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

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

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Approach fire from upwind to avoid hazardous vapours or gases. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn. Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Non-emergency personnel: evacuate downwind locations. Emergency responders: 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

It is good practice to prevent releases into the environment. 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

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Contain and soak up spill with absorbent that does not react with spilled product. Suitable absorbents are: clay, dirt, sand, Milsorb® 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

Avoid breathing in this product. Prevent all skin contact. Do not get in eyes, on skin or on clothing. Wear personal protective equipment to avoid direct contact with this chemical. Avoid generating vapours or mists. Avoid release to the environment. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). General hygiene considerations: do NOT eat, drink or store food in work areas. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area. Immediately remove contaminated clothing using the method that minimizes exposure. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Conditions for Safe Storage

Store in an area that is: cool, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Restrict access to authorized personnel only.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Not available.

Consult local authorities for provincial or state exposure limits. This product has not been tested. No known exposure

limits.

Appropriate Engineering Controls

General ventilation is usually adequate. 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.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots. Chemical-resistant, impervious gloves which comply with an approved standard should be worn at all times when handling. Chemical resistant goggles must be worn. Suitable materials are: butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride.

Respiratory Protection

Not usually required when working with small quantities. In case of inadequate ventilation wear respiratory protection. During spraying, wear suitable respiratory equipment.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	liquid. Particle Size: Not available
Odour	Not available
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (melting); -10 ºC (14 ºF) (freezing)
Initial Boiling Point/Range	> 200 ºC (392 ºF)
Flash Point	~ 102 ºC (216 ºF)
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable (liquid).
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	~ 0.1 kPa (0.8 mm Hg)
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	~ 0.99
Solubility	Not available 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); ~ 80 mPa.s at 68 ºF (20 ºC) (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.

Possibility of Hazardous Reactions

None known.

Conditions to Avoid

Prolonged exposure to high temperatures. Open flames, sparks, static discharge, heat and other ignition sources.

Incompatible Materials

Nitrous acid and other nitrosating agents. Organic acids (e.g. acetic acid), inorganic acids (e.g. hydrofluoric acid). Sodium Hypochlorite increased risk of fire and explosion on contact with: oxidizing agents (e.g. peroxides). Slowly corrosive to: copper, aluminum alloys, zinc, galvanized surfaces.

Hazardous Decomposition Products

Can include, but not limited to: corrosive, oxidizing nitrogen oxides; very toxic carbon monoxide, carbon dioxide; very toxic, flammable aldehydes. volatile amines.

SECTION 11. TOXICOLOGICAL INFORMATION

ATE values are calculated based on toxicity values of individual components of this product. No data for the product itself.

Likely Routes of Exposure

Skin contact; eye contact; inhalation; ingestion.

Acute Toxicity

ATE (inhalation) =~4.178 mg/l (rat) (4-hr exposure)

ATE (oral) = ~2478 mg/kg (rat)

ATE (dermal) = ~5220 mg/kg (rat)

Skin Corrosion/Irritation

No information was located.

Serious Eye Damage/Irritation

No information was located.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Based on available data, the classification criteria are not met.

Skin Absorption

May be harmful based on information for closely related materials.

Ingestion

Harmful May cause severe irritation or burns to the mouth, throat and stomach. May cause damage to organs.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Harmful If swallowed.

Respiratory and/or Skin Sensitization

No information was located for respiratory sensitization. May cause an allergic reaction (skin sensitization) based on limited evidence. In sensitized people, exposure to even small amounts may cause symptoms to be aggravated, becoming more severe.

Carcinogenicity

No information was located. Not known to cause cancer.

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

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.

Persistence and Degradability

No information was located.

Bioaccumulative Potential

This product and its degradation products are not expected to bioaccumulate.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available. 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.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN2735	Amines, Liquid, Corrosive N.O.S. (cycloaliphatic amine)	8	II
US DOT	UN2735	Amines, Liquid, Corrosive N.O.S. (cycloaliphatic amine)	8	II

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	August 10, 2017
Date of Last Revision	August 10, 2017
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Key to Abbreviations	ACGIH® = American Conference of Governmental Industrial Hygienists 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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