

KELMAR® CWC Hardener - Part B

SECTION 1. IDENTIFICATION

Product Identifier	KELMAR® CWC 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
Date of Preparation	October 15, 2020

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015).

Classification

Acute toxicity (Oral) - Category 4; Acute toxicity (Dermal) - Category 4; Skin corrosion - Category 1; Serious eye damage - Category 1; Skin sensitization - Category 1; Germ cell mutagenicity - Category 2; Reproductive toxicity - Category 1; Specific target organ toxicity (repeated exposure) - Category 2; Aquatic hazard (Acute) - Category 1; Aquatic hazard (Chronic) - Category 1

Label Elements



Danger

Hazard Statement(s):

H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H360 May damage fertility or the unborn child.

H410 Very toxic to aquatic life with long lasting effects.

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.

P263 Avoid contact during pregnancy and while nursing.

P264 Wash hands and skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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P310 Immediately call a POISON CENTRE or doctor.

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 or 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.

P362 + P364 Take off contaminated clothing and wash it before reuse.

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
Triethylenetetramine	112-24-3	112-24-3		
4-Nonylphenol, branched (mixed isomers)	84852-15-3	30.0-60.0		
Polyoxypropylenediamine	9046-10-0	15.0-40.0		
Aminoethylethanolamine	111-41-1	1.0-5.0		
Morpholine, 4-aminopropyl-	123-00-2	0.5-5.0		
Tetraethylenepentamine	112-57-2	0-5.0		
Aminoethylethanolamine	111-41-1	0-5.0		
N-(2-Aminoethyl)piperazine	140-31-8	0-5.0		
Phenol	108-95-2	<1.0		
1-NONENE	124-11-8	<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. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor. Get medical advice or attention if you feel unwell.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. 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 occurs, get medical advice or attention. Call a Poison Centre or doctor if you feel unwell.

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. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed

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Contact can cause pain, redness, burns, and blistering. Permanent scarring can result. May cause serious eye damage. May irritate or burn the eyes. Permanent damage including blindness may result.

Immediate Medical Attention and Special Treatment

Target Organs

Skin.

Special Instructions

Not applicable.

Medical Conditions Aggravated by Exposure

Dermatitis, skin allergies.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Use water to keep non-leaking, fire-exposed containers cool.

Unsuitable Extinguishing Media

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

Specific Hazards Arising from the Product

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

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.

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. Minimize the use of water to prevent environmental contamination.

Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Suitable absorbents are: clay, dirt, sand, Milsorb®.

Other Information

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

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid ALL unprotected contact with this product or with contaminated equipment/surfaces. Do not get in eyes, on skin or on clothing. Avoid exposure during pregnancy and while nursing. Only use where there is adequate ventilation. Avoid generating vapours or mists. Prevent accidental contact with incompatible chemicals. General hygiene considerations: do NOT eat, drink or store food in work areas.

Conditions for Safe Storage

Store in an area that is: cool, well-ventilated. Store in the original, labelled, shipping container.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Not available.

This product has not been tested.

Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

Individual Protection Measures

Eye/Face Protection

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

Skin Protection

Chemical-resistant, impervious gloves which comply with an approved standard should be worn at all times when handling. Wear chemical protective clothing e.g. gloves, aprons, boots.

Neoprene rubber, butyl rubber, polyvinyl chloride.

Respiratory Protection

Not usually required when working with small quantities. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Yellowish liquid.
Odour	amine-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	≥ 112.8 °C (235.0 °F) (estimated) (Aminoethylethanolamine)
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)	0.966
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); Not available (dynamic)
Other Information	
Physical State	Liquid
VOC	<5g/l - water

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

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Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources.

Incompatible Materials

Releases excessive heat on contact with: water. Avoid contact with: alcohols (e.g. ethanol), strong acids (e.g. hydrochloric acid), aromatic hydrocarbons (e.g. toluene), ketones (e.g. acetone). Avoid contact with: absorbent materials such as ground corn cobs moist organic absorbents peat moss sawdust.

Hazardous Decomposition Products

Can include, but not limited to: corrosive, flammable ammonia; very toxic carbon monoxide, carbon dioxide. volatile amines.

SECTION 11. TOXICOLOGICAL INFORMATION

No data for the product itself.

Likely Routes of Exposure

Skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
4-Nonylphenol, branched (mixed isomers)		1412 mg/kg (rat)	2140 mg/kg (rabbit)
Polyoxypropylenediamine		1146 mg/kg (rat)	1620 mg/kg (rabbit)
Triethylenetetramine	Not available	504.00 mg/kg (rat)	1108.00 mg/kg (rabbit)
Aminoethylethanolamine	51.3 mg/m3 (rat) (vapour)	~ 2000 mg/kg (rat)	> 2000 mg/kg (rabbit)

Exposure to vapour is minimal due to low volatility at room temperature. Based on available data, the classification criteria are not met.

Oral ATEmix = 996.51 mg/kg

Dermal ATEmix = 1679.68 mg/kg

Skin Corrosion/Irritation

Corrosive based on information for closely related materials. (4-Nonylphenol, branched (mixed isomers)) animal tests show skin corrosion. (Polyoxypropylenediamine)

Contact can cause pain, redness, burns, and blistering. Permanent scarring can result.

Serious Eye Damage/Irritation

Contact causes severe burns with redness, swelling, pain and blurred vision. Permanent damage including blindness can result. (4-Nonylphenol, branched (mixed isomers))

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May be harmful based on limited evidence. May cause severe nose and throat irritation.

Skin Absorption

Causes thermal burns.

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.

Aspiration Hazard

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May be drawn into the lungs (aspirated) if swallowed or vomited. May cause lung damage if aspirated based on existing animal tests and physical and chemical properties.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause damage to organs based on information for closely related chemicals. (4-Nonylphenol, branched (mixed isomers))

May cause effects on the central nervous system.

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Skin sensitizer. (Triethylenetetramine) may cause an allergic reaction (skin sensitization) based on information for closely related chemicals. 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

Not known to cause cancer.

Reproductive Toxicity

Development of Offspring

Contains components which caused birth defects in laboratory animals. (Triethylenetetramine)
May harm the unborn child. Has been associated with: birth defects, death.

Sexual Function and Fertility

May cause effects on sexual function and/or fertility. Contains components which have been shown to interfere with fertility, in animal studies. (Triethylenetetramine)

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

May be mutagenic based on information for closely related chemicals. (4-Nonylphenol, branched (mixed isomers))

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

Toxic, with long lasting effects to aquatic life,
Contains a substance which causes risk of hazardous effects to the environment.

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

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. Empty containers retain product residue. Follow label warnings even if container appears to be empty.

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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. (Aliphatic Amine Blend)	8	II
US DOT	UN2735	Amines, Liquid, Corrosive N.O.S. (Aliphatic Amine Blend)	8	II
IMO (Marine)	UN2735	Amines, Liquid, Corrosive N.O.S. (Aliphatic Amine Blend)	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 October 15, 2020

Date of Last Revision February 04, 2022

Revision Indicators The following SDS content was changed on February 04, 2022:
Section 1. Identification

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists
NIOSH = National Institute for Occupational Safety and Health
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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