KELMAR® 1920 Resin - Part A

SECTION 1. IDENTIFICATION

Product Identifier	KELMAR® 1920 Resin - Part A
Other Means of Identification	N/A
Product Family	Epoxy Resins
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	September 10, 2020

SECTION 2. HAZARD IDENTIFICATION

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

Classification

Skin irritation - Category 2; Eye irritation - Category 2; Skin sensitization - Category 1; Reproductive toxicity - Category 2; Aquatic hazard (Chronic) - Category 1

Label Elements

Signal Word:
Danger
Hazard Statement(s):
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Suspected of damaging fertility or the unborn child.
Very toxic to aquatic life with long lasting effects.
Precautionary Statement(s):
Do not handle until all safety precautions have been read and understood.
Avoid breathing mist, vapours, spray.
Wash hands and skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Avoid release to the environment.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Call a POISON CENTRE or doctor if you feel unwell.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
If skin irritation occurs: Get medical advice or attention.
IF IN EYES: 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.
Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight.
Disposal:
Dispose of contents and container in accordance with local, regional, national and international regulations.
Note:
Approximately 1.0% of the mixture consists of an ingredient or ingredients of unknown acute toxicity (dermal).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Propane, 2,2-bis[p-(2, 3-epoxypropoxy)phenyl]-, polymers	25085-99-8	45.0-70.0		
Propylene carbonate	108-32-7	7.0-13.0		
Propane, 1,3-bis(2, 3-epoxypropoxy)-2,2-dimethyl-	17557-23-2	5.0-10.0		Neopentyl Glycol diglycidyl ether
Diglycidyl ether of bisphenol A-based epoxy resins, low molecular weight solids	25068-38-6	0.1-1.0		
Carbon black	1333-86-4	0.1-1.0		
4-Nonylphenol, branched (mixed isomers)	84852-15-3	0-1.0		Phenol,4-nonyl-,branched

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.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation or a rash occurs, get medical advice or attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 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. Specific treatment is required.

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

If on skin: can cause effects as described for skin contact.

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

Skin conditions, 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

Closed containers may rupture violently when heated releasing contents.
In a fire, the following hazardous materials may be generated: hazardous organic compounds. very toxic carbon monoxide, carbon dioxide. Polymerization is exothermic and can degenerate into an uncontrolled reaction.

Special Protective Equipment and Precautions for Fire-fighters

Fight fire from a safe distance or a protected location.
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. Increase ventilation to area or move leaking container to a well-ventilated and secure area.

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

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Suitable absorbents are: clay, dirt, sand, Milsorb® large spills or leaks: dike spilled product to prevent runoff. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Store recovered product in suitable containers that are: covered. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information

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

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Obtain special instructions before use. Do not get in eyes, on skin or on clothing. Do not swallow. Avoid generating vapours or mists. Prevent uncontrolled release of product. Avoid release to the environment. Prevent accidental contact with incompatible chemicals. Avoid repeated or prolonged skin contact with product or with contaminated

equipment/surfaces. General hygiene considerations: do NOT eat, drink or store food in work areas. Remove contaminated clothing and protective equipment before entering eating areas or leaving work area.

Conditions for Safe Storage

Store in an area that is: well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet.
Minimum storage temperature: 0°C (32°F)
Maximum storage temperature: 38°C (100°F).

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. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles. 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.
Neoprene rubber, butyl rubber, polyvinyl chloride, Silver Shield®.

Respiratory Protection

Not normally required if product is used as directed. During spraying, wear suitable respiratory equipment. Wear a NIOSH approved powered air-purifying respirator with an appropriate cartridge.
For non-routine or emergency situations: wear a NIOSH approved self-contained breathing apparatus (SCBA) or supplied air respirator.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Various colours viscous liquid. Particle Size: Not applicable
Odour	faint
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	> 100 ºC (212 ºF)
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)	~ 1.287
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	<0.5 g/l - water

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Polymerizes in the presence of aliphatic amines.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Sunlight. Depletion of inhibitor. Heat. Temperatures above 300.0 ºC (572.0 ºF)

Incompatible Materials

Oxidizing agents (e.g. peroxides), strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide). Avoid unintended contact with amines.

Hazardous Decomposition Products

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

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; eye contact; skin absorption.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Propane, 2,2-bis[p-(2, 3-epoxypropoxy)phenyl]-, polymers	Not applicable	> 15,000 mg/kg (rat)	23,000 mg/kg (rabbit)
4-Nonylphenol, branched (mixed isomers)		> 5000 mg/kg (rat)	> 5000 mg/kg
Propylene carbonate	Not applicable	33520 mg/kg (rat)	> 2000 mg/kg (rabbit)
Diglycidyl ether of bisphenol A-based epoxy resins, low molecular weight solids		31027 mg/kg (rat)	
Propane, 1,3-bis(2, 3-epoxypropoxy)-2, 2-dimethyl-		4500 mg/kg (rat)	> 2100 mg/kg (rat)

LC50: No information was located.

Oral ATEmix = 14537.89 mg/kg

Dermal ATEmix = 7866.29 mg/kg

Less than 1.0% of the mixture consists of an ingredient or ingredients of unknown acute toxicity (dermal)

Skin Corrosion/Irritation

There is limited evidence of mild irritation.

May cause moderate or severe irritation based on information for closely related materials. (2-Propenoic acid, 1, 4-butanediyl ester)

Repeated or prolonged exposure can irritate or burn the skin. Symptoms include pain, redness, and swelling.

Serious Eye Damage/Irritation

There is limited evidence of serious eye irritation. May irritate or burn the eyes. Permanent damage including blindness may result.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Exposure to vapour is minimal due to low volatility at room temperature. Exposure to heated vapours may cause irritation to the nose, throat or mucous membranes.

Skin Absorption

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

Ingestion

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

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause dermatitis. Symptoms can include redness, rash, swelling and itching.

Respiratory and/or Skin Sensitization

Not a respiratory sensitizer. Can cause an allergic reaction (skin sensitization) based on animal tests. Human experience shows an allergic skin reaction (skin sensitization) in rare cases following exposure at work. 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. Sensitization may occur following exposure to the liquid or vapour.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Propane, 2,2-bis[p-(2, 3-epoxypropoxy)phenyl]-, polymers	Group 3	Not Listed	Not Listed	
Diglycidyl ether of bisphenol A-based epoxy resins, low molecular weight solids	Group 2B			

Not known to cause cancer.

Key to Abbreviations

IARC = International Agency for Research on Cancer. Group 1 = Carcinogenic to humans. Group 2B = Possibly carcinogenic to humans. Group 3 = Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity

Development of Offspring

May cause effects on the unborn child based on information for closely related chemicals. (4-Nonylphenol, branched (mixed isomers))

Sexual Function and Fertility

Conclusions cannot be drawn from the limited studies available.

Effects on or via Lactation

Not known to cause effects on or via lactation.

Germ Cell Mutagenicity

Not known to be a mutagen.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Contains a substance which causes risk of hazardous effects to the environment. May cause long lasting harmful effects to aquatic life, aquatic plants, aquatic invertebrates.

Persistence and Degradability

Does not degrade rapidly based on quantitative tests.

Bioaccumulative Potential

The product has potential for bioaccumulation.

Mobility in Soil

If released into the environment, this product is not expected to move through the soil, based on physical and chemical properties.

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

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN3082	Environmentally Hazardous Substance, Liquid N.O.S. (Epoxy Resin)	9	III
US DOT	UN3082	Environmentally Hazardous Substance, Liquid N.O.S. (Epoxy Resin)	9	III

Special Precautions Please note: ROAD/RAIL: Not regulated in packages 450 litres or less.

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	September 10, 2020
Date of Last Revision	September 10, 2020
Revision Indicators	The following SDS content was changed on September 10, 2020: SECTION 2. HAZARD IDENTIFICATION; Classification. SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information. SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.
Key to Abbreviations	ACGIH® = American Conference of Governmental Industrial Hygienists IARC = International Agency for Research on Cancer NFPA = National Fire Protection Association 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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