KELMAR® PC Resin - Part A

SECTION 1. IDENTIFICATION

Product Identifier	KELMAR® PC Resin - Part A
Other Means of Identification	N/A
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 (Inhalation) - Category 3; Skin irritation - Category 2; Eye irritation - Category 2A; Skin sensitization - Category 1; Aquatic hazard (Chronic) - Category 2

Label Elements

Danger

Hazard Statement(s):

P202	Do not handle until all safety precautions have been read and understood.
H331	Toxic if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statement(s):

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.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear eye protection/face protection.
P280	Wear protective gloves.
P273	Avoid release to the environment.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P332 + P313	If skin irritation 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.

P311	Call a POISON CENTRE or doctor.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311	Call a POISON CENTRE or doctor.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310 Immediately call a POISON CENTRE or doctor.
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.
Note:
86
% of the mixture consists of ingredient(s) of unknown acute toxicity inhalation.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	25085-99-8	70-75	
Alkyl Glycidly Ether	68609-97-2	10-14	
Benzyl alcohol	100-51-6	5-10	

Notes

Concentrations are expressed in % weight/weight. 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.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation or a rash occurs, get medical advice or attention.

Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists, get medical advice or attention.

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. Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

Large amounts can cause effects as described for inhalation. 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

None known.

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. Contain fire water runoff if possible - may cause environmental damage.
In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; corrosive phenols. During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Do NOT apply water directly to spill. Knock down vapours or gases with water fog or fine water spray. Dike and recover contaminated water for appropriate disposal. 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.

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. Minimize the use of water to prevent environmental contamination.

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. Place used absorbent into suitable, covered, labelled containers for disposal. Contaminated absorbent poses the same hazard as the spilled product. 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: tightly-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

General hygiene considerations: avoid ALL unprotected contact with this product or with contaminated equipment/surfaces. Remove contaminated clothing and protective equipment before entering eating areas or leaving work area. Do NOT eat, drink or store food in work areas. Prevent all skin contact. Do not get in eyes, on skin or on clothing.

Avoid generating vapours or mists. Avoid heating that will increase the amount of vapours. Avoid release to the environment. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Prevent contamination of surfaces that unprotected personnel may use. Wash hands thoroughly after handling this material.

Conditions for Safe Storage

Store in an area that is: well-ventilated, secure and separate from work areas, separate from incompatible materials (see Section 10: Stability and Reactivity). Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet.

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. For large scale use of this product: use local exhaust ventilation, if general ventilation is not adequate 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.

Skin Protection

Chemical-resistant, impervious gloves which comply with an approved standard should be worn at all times when handling. In case of an emergency (e.g. an uncontrolled release): wear chemical protective clothing e.g. gloves, aprons, boots.
Suitable materials are: butyl rubber, nitrile rubber, neoprene rubber, Silver Shield/4H® (PE/EVAL/PE).

Respiratory Protection

Not normally required if product is used as directed. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Colourless liquid. Particle Size: Not applicable
Odour	Aromatic
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not applicable (melting); Not available (freezing)
Initial Boiling Point/Range	205.4 - 205.7 ºC (401.7 - 402.3 ºF) (Benzyl alcohol)
Flash Point	> 100 ºC (212 ºF) (Benzyl alcohol)
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)	1.142
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 applicable
Molecular Weight	Not applicable
Bulk Density	Not applicable
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	6.94% (w/w)

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

Heat. Prolonged exposure to high temperatures. Temperatures above 300.0 ºC (572.0 ºF)

Incompatible Materials

Polymerizes on contact with: amines (e.g. triethylamine). Avoid contact with: oxidizing agents (e.g. peroxides), strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide).

Hazardous Decomposition Products

Can include, but not limited to: very toxic carbon monoxide, carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

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

Likely Routes of Exposure

Skin contact; inhalation; eye contact.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Propane, 2,2-bis[p-(2, 3-epoxypropoxy)phenyl]-, polymers	Not available	> 15,000 mg/kg (rat)	23,000 mg/kg (rabbit)
Alkyl Glycidly Ether	Not available	17100-1920 mg/kg (rat)	> 4500 mg/kg (rabbit)
Benzyl alcohol	> 4.168 mg/L (rat) (4-hour exposure) (vapour)	1230 mg/kg (rat)	2000 mg/kg (rabbit)

Inhalation ATEmix = 9.28 mg/L (4-hour exposure) (vapour)
86.15% of the mixture consists of an ingredient or ingredients of unknown acute toxicity (inhalation).

Oral ATEmix = 9404.28 mg/kg

Dermal ATEmix = 11267.02 mg/kg

Skin Corrosion/Irritation

There is limited evidence of mild irritation. May cause moderate or severe irritation based on information for closely

related materials. (Alkyl Glycidly Ether) repeated or prolonged exposure can irritate or burn the skin.

Serious Eye Damage/Irritation

There is limited evidence of mild irritation. May cause serious eye irritation based on information for closely related materials. (Benzyl alcohol)

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. At high concentrations may cause nose and throat irritation.

Skin Absorption

May be harmful based on animal tests. (Benzyl alcohol)

Ingestion

May be harmful based on animal tests. If large amounts are swallowed may cause depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

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

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. May cause sensitization by skin contact. 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.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Propane, 2,2-bis[p-(2, 3-epoxypropoxy)phenyl]-, polymers	Group 3	Not Listed	Not Listed	
Benzyl alcohol	Not evaluated	Not Listed	Not Listed	

Not known to cause cancer.

Key to Abbreviations

IARC = International Agency for Research on Cancer. ACGIH® = American Conference of Governmental Industrial Hygienists. NTP = National Toxicology Program.

Reproductive Toxicity

Development of Offspring

Not known to harm the unborn child.

Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

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

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

Ecotoxicity

Toxic to aquatic life, based on acute toxicity tests. (Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers)

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Propane, 2,2-bis[p-(2, 3-epoxypropoxy)phenyl]-, polymers	2 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; semi-static)	1.8 mg/L (Daphnia magna (water flea); 48-hour; static)	11 mg/L (Selenastrum capricornutum (algae); 72-hour; fresh water; static)	
Alkyl Glycidly Ether	> 1800 mg/L (96-hour)	6.07-7.2 mg/L		844 mg/L (72-hour)
Benzyl alcohol	460 mg/L (Pimephales promelas (fathead minnow); 96-hour)	230 mg/L (Daphnia magna (water flea); 48-hour)		700 mg/L (Pseudokirchneriella subcapitata (algae); 72-hour; static)

Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Benzyl alcohol	51 mg/L (Daphnia magna (water flea); 21-day)			

Persistence and Degradability

Predicted not to degrade rapidly based on quantitative structure-activity relationships. (Propane, 2,2-bis[p-(2, 3-epoxypropoxy)phenyl]-, polymers)

Bioaccumulative Potential

This product or its degradation products have the potential to bioaccumulate based on the fish bioconcentration factor (BCF). (Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers)

Mobility in Soil

If released into the environment, this product is not expected to move through the soil, based on physical and chemical properties. (Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers)

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

SECTION 14. TRANSPORT INFORMATION

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	October 11, 2016
Date of Last Revision	October 11, 2016
Revision Indicators	Not applicable.
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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