SAFETY DATA SHEET

Quantum Technical Services Ltd.

Section 1. Product and Company Identification

Product Name	**Precidium™ Epoxy 21-CS Concrete Sealer Part A**
Manufacturer	Quantum Technical Services Ltd. (Dba Quantum Chemical) 15 Riel Drive St. Albert, AB, Canada T8N 3Z2 Tel: (780) 458-3355 (non-emergency phone number) www.quantumchemical.com
Chemical Emergencies	For 24-Hour Emergency call Canutec at 613.996.6666

Section 2. Hazards Identification

2.1 Classification

GHS Classification

Flammable Liquids	**Category 2**
Acute Toxicity	**Category 4**
Skin Irritation	**Category 2**
Carcinogenicity	**Category 2**
Reproductive Carcinogenicity	**Category 1B**
Serious eye damage/Eye irritation	**Category 2A**
Specific Target Organ Toxicity (single exposure)	
Respiratory Tract, CNS	**Category 3**
Specific Target Organ Toxicity (repeated exposure)	
Auditory System	**Category 2**
Aspiration Hazard	**Category 1**

2.2 Label Elements

Pictogram

Signal Word **Danger**

Hazard Statements	**H225** Highly Flammable liquid and vapour. **H304** May be fatal if swallowed and enters airway **H312 & H332** Harmful in contact with skin or if inhaled **H315 Causes skin irritation** **H319** Causes serious eye irritation. **H335** May cause respiratory irritation **H336** May cause drowsiness or dizziness **H351** Suspected of causing cancer **H360** May damage fertility or the unborn child **H373** May cause damage to organs through prolonged or repeated exposure
Precautionary Statements	**P201** Obtain special instructions before use **P202** Do not handle until all safety precautions have been read and understood **P280** Wear protective gloves/protective clothing/eye protection/face protection. **P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. **P233** Keep container tightly closed. P**261** Avoid breathing dust/fume/gas/mist/vapours/spray. **P271** Use only outdoors or in a well ventilated area. **P264** Wash face, hands and any exposed skin thoroughly after handling.
Response	**P301 + P310** IF SWALLOWED Immediately call a poison center or Doctor **P370 + P378** In case of fire: Use water spray, carbon dioxide, dry chemical, or foam to extinguish. **P303 + P361 + P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. **P304 + P340** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Center 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. If eye irritation persists get medical attention. **P312** Call a Poison Center or Doctor/Physician if you feel unwell. **P301** Do not induce vomiting **P332 + P313** If skin irritation occurs Get medical advice/attention **P337 + P313** If eye irritation persists: Get medical advice/attention **P337 + P313** If eye irritation persists: Get medical advice **P403 + P233 –** Store in a well ventilated place. Keep container tightly closed. **P403 + P235 –** Store in a well ventilated place, keep cool.
Storage	**P403 +P223** Store in a well ventilated place. Keep container tightly closed. **P405** Store locked up.
Disposal	**P501** Dispose of contents/containers in accordance with local/regional/national/ international regulations.

Section 3. Composition and Ingredient Information

Hazardous Ingredients	%	C.A.S. #	LD_{50}	LC_{50}
Isopropyl Alcohol	1 - 5	67-63-0	5840 mg/kg (Oral, Rat)	>10,000 ppm (Rat, 6 hr.)
Reaction Product of Epichlorohydrin and bisphenol A Mixture of DGEBPA($C_{21}H_{24}O_4$) Component and higher homologues	65 – 85	25068-38-6		
Mixed Xylenes	1 – 5	1330-20-7		
Ethylbenzene	1 – 5	100-41-4		

Section 4. First Aid Measures

Eye Contact	Immediately flush eyes with running water for a minimum of 15 minutes. Hold eyelids open during flushing. Check for and remove any contact lenses. If irritation persists, repeat flushing. Obtain medical attention. If necessary call a physician.
Skin Contact	If irritation, redness or a burning sensation develops and persists, obtain medical advice. Contaminated clothing should be thoroughly cleaned before reuse.
Inhalation	Remove patient from exposure, keep warm and at rest. If breathing is labored, oxygen should be administered by qualified personnel. Obtain medical attention if there are persistent symptoms.
Ingestion	Wash out mouth with water. If material has been swallowed and exposed person is conscious, give water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. Get medical attention. If necessary call a poison center or Physician.

Section 5. Fire Fighting Measures

Extinguishing Media	Alcohol-resistant foam. Carbon dioxide, dry chemical.
Unsuitable Extinguishing Media	Full water jet.
Special Protective equipment and precautions for firefighters.	Fire fighters must wear full protective equipment including self-contained breathing apparatus with chemical protection clothing.
Special Hazards	Keep containers cool by spraying with water if exposed to fire.

Section 6. Accidental Release Measures

Personal Precautions	Remove all sources of ignition. Ventilate area.
Method for Cleaning Up	Dike area to prevent spreading. Cover spills with some inert absorbent material, sweep up and place in a waste disposal container. Remove containers to a safe place and cover loosely.

Section 7. Handling and Storage

Handling	Do not breath vapor or mist. Do not ingest. No special precautions are necessary if used as intended.
Storage Needs	Store in a cool dry, well ventilated space, protect from direct sunlight., and keep container tightly closed. Keep away from source of ignition and food and drink. Keep out of reach of children.

Section 8. Exposure Controls and Personal Protection

Occupational Exposure Limits (Alberta):

Isopropyl Alcohol	TWA 200 ppm TWA 492 mg/m3 STEL 400 ppm STEL 989 mg/m3
Ethylebenzene	TWA 100 ppm CA AB OEL TWA 434 mg/m3 CA AB OEL STEL 125 ppm CA AB OEL STEL 543 mg/m3 CA AB OEL

Protective Equipment:

Respiratory	Use respiratory protection unless ventilation is adequate.
Eye Protection	Wear safety glasses, or tightly fitting goggles/faceshield is splashing hazard exists.
Hands and Body	Impervious clothing/gloves

Section 9. Physical and Chemical Properties

Physical State	Liquid
Appearance	Not Available
Odour	Distinctive Odour
Specific Gravity (H2O=1)	Approx 1.10 at 20°C
Flash Point	Not Available
Vapor Pressure (mm Hg)	Not Available
Vapor Density (Air=1)	Not Available
Evaporation Rate	Not Available.
Boiling Point	Not Available
pH	Not Available
Solubility in Water	Easily soluble
Freezing Point	Not Available
Melting Point	Not Available
Viscosity	Not Available
Flammability	Flammable
Upper/Lower explosion/ flammability limit	Not Available

Section 10. Stability and Reactivity

Stability	This product is stable.
Conditions to Avoid	Keep away from heat, flame, sparks, and other ignition sources.
Polymerization	Caustic can induce vigorous polymerization at temperatures around 200C
Materials to Avoid	Strong Oxidizing agents

Section 11. Toxicological Information

Acute Toxicity

Isopropyl Alcohol	**LD50** (Oral Rat)	5840 mg/kg body weight
	LD50 (Dermal Rabbit)	16400 mg/kg body weight
	LC50 (Inhalation, Rat)	>10,000 ppm

Reaction Product of
Epichlorohydrin and bisphenol A
Mixture of DGEBPA(C21H24O4)
Component and higher

Homologues	**LD50** (Oral Rat)	>2000 mg/kg body weight
	LD50 (Dermal Rabbit)	>2000 mg/kg body weight

Xylene	Acute Inhalation Toxicity	Acute Toxicity Estimate	4399 ppm Exposure time 4 h Test Atmosphere Gas
	Acute Dermal Toxicity	Estimate 1,116 kg/kg	

Carcinogenicity

Xylene	Suspected Human Carcinogens

Reproductive Toxicity

Xylene	Clear evidence of adverse effects on sexual function and fertility, based on animal experiments

Serious eye damage/irritation: Causes serious eye irritation.

Aspiration Toxicity May be fatal if swallowed and enters airway

Further Information

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

Section 12. Ecological Information

Ecotoxicity General - Moderately toxic to Aquatic animals.

Toxicity

Isopropyl Alcohol	LC50 Fish (Pimephales promelas, 96 hr)	9,640 – 10,000 mg/l

Persistence and Degradability

Isopropyl Alcohol	Readily biodegradable in soil, water. BOD COD	 1.19g O2/g substance 2.23g O2/g substance

Bioaccumulative Potential

Isopropyl Alcohol	Log Pow	0.05
Bioaccumulative Potential	Low potential for bioaccumulation (Log Kow < 4)	

Mobility in Soil

Isopropyl Alcohol	Surface Tension	0.21 N/m (25 C)
	Log Koc	0.185 – 0.541
	Ecology Soil	Highly Mobile in Soil

Section 13. Disposal Considerations

Waste Disposal	The generation of waste should be avoided or minimized wherever possible. Disposal should be in accordance with federal, provincial and municipal regulations.

Section 14. Transport Information

Canada	TDG UN1263, Paint Flammable (Isopropanol) Class 3 (Subclass 9), PG III IATA UN1993, Flammable Liquids N.O.S. (Isopropanol) Class 3 (Subclass 9), PG III

Section 15. Regulatory Information

Section 16. Other Information

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