



Suite 450
One North Shore Center
12 Federal Street
Pittsburgh, PA 15212

Safety Data Sheet

KR-C1680

1. IDENTIFICATION

Product name KR-C1680
Description Proprietary aqueous solution
Product class Waste Treatment
Supplier address Suite 450
One North Shore Center
12 Federal Street
Pittsburgh, PA 16212
Telephone numbers
Company Phone Number (412) 321-9800
Emergency Telephone CHEMTREC 800-424-9200

2. HAZARDS IDENTIFICATION

Hazard classification Not hazardous pursuant to 29 CFR 1910.1200.
Signal word None
Hazard statements None
Pictograms of related hazards None

Precautionary statements

Prevention

Read label before use.
Wash skin thoroughly after handling.
Wear protective gloves, protective clothing, eye protection, and face protection.

Response

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person. Get medical attention.

IF ON SKIN: Immediately flush skin with soap and water for at least 15 minutes.

Storage

Store in a well-ventilated place. Keep cool.

Disposal

Dispose of in accordance with local, state, and federal regulations.

Unknown acute toxicity

51% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS
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Chemical Name	CAS #	Weight %
Polyquaternaryamine (Epichlorohydrin-DMA Copolymer)	42751-79-1	~50*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

Eye contact	Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Seek medical attention if irritation should develop.
Skin contact	Immediately flush skin with soap and water for at least 15 minutes. Remove contaminated clothing and wash the affected area with soap and water. Wash contaminated clothing before reuse.
Ingestion	Rinse mouth. DO NOT induce vomiting. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician
Note to health care provider	No specific information—treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	This material is not expected to burn unless heated to dryness. Use extinguishing media appropriate for the surrounding fire: water, foam, carbon dioxide (CO ₂), dry chemical.
Unsuitable extinguishing media	No information available
Protective equipment and precautions for firefighters	Exercise caution when fighting any chemical fire. A self-contained breathing apparatus and protective clothing are essential. Use water to keep fire-exposed containers cool.
Specific hazards	Spills produce slippery surfaces and could present a physical hazard for firemen.
Hazardous combustion products	Thermal decomposition (as may be experienced in a fire) may produce hydrogen chloride gas and/or liberate oxides of nitrogen and carbon.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Full protective clothing and approved self-containing breathing apparatus required for firefighting personnel.

Methods for clean-up

Small spills Contain spill and soak up with an inert absorbent material and place residues in a properly labeled container for disposal. Avoid discharge into sewer or surface water.

Large spills Contain spill using trenches, diking, or absorption with an inert material (i.e. clay, sand or earth). Reclaim spilled material into recovery or salvage drums or tank truck for proper disposal.

7. HANDLING AND STORAGE

Advice on safe handling Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash hands thoroughly after handling. Take off contaminated clothing and wash before reuse.

Storage conditions Store in a cool (5-30C or 41-86F), dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.

Suitable materials of construction No information available

Unsuitable materials of construction Copper, copper alloys, aluminum, mild steel or iron may cause corrosion/degradation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/face protection Chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

Skin protection Chemical-resistant gloves and body-covering clothing

Respiratory protection Under most conditions, use adequate ventilation and protective equipemtn since volatility and toxicity are very low. If significant vapors, mist, or aerosols are present, use NIOSH approved respirator in accordance with OSHA respiratory protection requirements (29 CFR 1910.134) if airborne concentrations exceed published exposure limits.

Engineering controls Adequate ventilation, eye-wash station, and emergency shower

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Chemical Name	OSHA PEL	ACGIH TLV
Non-hazardous substances	None established	None established

9. PHYSICAL AND CHEMICAL PROPERTIES

pH	4.0-6.0
Appearance	Clear yellow to amber liquid
Odor	Amine
Odor Threshold	No information available
Melting/freezing point	-7 - 0°C (19.4 - 32°F)
Initial boiling point/boiling range	>100°C (212°F) @ 760 mm Hg
Flash point	>100°C (212°F)
Evaporation rate	Equal to water
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapor pressure	58 mm Hg @ 38°C
Vapor density	>60 mm Hg
VOC content	No information available
Specific gravity	1.12-1.16
Solubility	Complete
Partition coefficient n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	4,000 – 9,000 cP

10. STABILITY AND REACTIVITY

Chemical stability	Stable under normal conditions of storage and handling.
Hazardous polymerization	Polymerization will not occur.
Conditions to avoid	Strong oxidizers. Contact with copper, copper alloys, aluminum, mild steel or iron may cause corrosion/degradation.
Incompatibilities	Strong acids, oxidizers
Hazardous decomposition products	No known non-thermal decomposition hazards.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure Skin, eyes, ingestion

Test Material	Parameter	Result
Product	LD50, Oral (rat)	>2,000 mg/kg
	LD50, Dermal (rabbit)	>2,000 mg/kg

	LD50, Inhalation (rat)	No information
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Acute symptoms and effects

Eye	Testing conducted using the Draize technique revealed that the material produces no corneal or iridial effects and only minor conjunctival effects.
Skin	Testing conducted on rabbits using the Draize technique revealed the material to be mildly irritating to the skin.
Ingestion	Effects of ingesting small amounts are negligible, ingesting large amounts may injure person slightly.
Inhalation	Not considered hazardous under normal conditions of use.
Reproductive effects	No information available
Teratogenicity	No information available
Mutagenicity	Negative in the Ames test. Negative in the mouse micronucleus test
Embryotoxicity	No information available
Sensitization to product	No information available
Synergistic products	No information available
Carcinogenicity	This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.
Chronic	No information available

12. ECOLOGICAL INFORMATION

Test Material	Parameter	Result
Product	LC50/Danio rerio (Zebra fish)/96 hours	>10 mg/L
	EC50/Daphnia magna (Water flea)/48 hours	>10 mg/L
	IC50/Scenedesmus subspicatus (Green algae)/72 hours	No information

Persistence	No information available
Bioaccumulative potential	Does not bioaccumulate.
Mobility	No information available

13. DISPOSAL CONSIDERATIONS

Disposal	Dispose of in accordance with federal, state, and local regulations.
RCRA status	Discarded product, as sold, would not be considered a

RCRA Hazardous Waste.

14. TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number
 Proper shipping name Not regulated
 Primary hazard class/division
 Secondary hazard
 Packing group
 Label

15. REGULATORY INFORMATION

OSHA Hazard Communication Status Not hazardous pursuant to 29 CFR 1910.1200.
EPA Registration Number Not applicable
TSCA The ingredients of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA

EPA Hazardous Substances (40 CFR 302)

Chemical Name	Reportable Quantity (RQ)
Non-hazardous substances	None

SARA Title III (Sections 302, 311, 312, and 313)

Section 302 Extremely Hazardous Substances (40 CFR 355)

Chemical Name	CAS#	RQ	TPQ
None			

Section 311 and 312 Health and Physical Hazards

Immediate	Delayed	Fire	Pressure	Reactivity
No	No	No	No	No

Section 313 Toxic Chemicals (40 CFR 372)

Chemical Name	CAS Number	Percent by Weight
None		

16. OTHER INFORMATION

HMIS Ratings	Health—1; Flammability—0; Reactivity—0
NFPA Ratings	Health—1; Flammability—0; Reactivity—0; Special Hazard—None
HMIS and NFPA Rating Scale	Minimal—0; Slight—1; Moderate—2; Serious—3; Severe— 4
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