



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

KR-80QL

1. IDENTIFICATION

Product name	KR-80QL
Description	Proprietary aqueous solution
Product class	Boiler
Supplier address	Suite 450 One North Shore Center 12 Federal Street Pittsburgh, PA 16212
Telephone numbers	
<u>Company Phone Number</u>	(412) 321-9800
<u>Emergency Telephone</u>	CHEMTREC 800-424-9200

2. HAZARDS IDENTIFICATION

Hazard classification	Acute toxicity, Inhalation Category 2
Signal word	None
Hazard statements	None
Pictograms of related hazards	None

Precautionary statements

Prevention

Observe good industrial hygiene practices.

Response

Wash hands after handling.

Storage

Store away from incompatible materials.

Disposal

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %
2-Methyl-oxirane, polymer with oxirane, monobutyl ether	9038-95-3	20 - 40
Other components below reportable levels		60 - 80
Impurities		
1,4-DIOXANE	123-91-1	0
PROPYLENE OXIDE	75-56-9	0
ETHYLENE OXIDE	75-21-8	0

4. FIRST-AID MEASURES

Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately..
Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Note to health care provider	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
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. Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials.
Specific hazards	During fire, gases hazardous to health may be formed.
Hazardous combustion products	No hazardous decomposition products are known.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
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Methods for clean-upSmall spills

Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Large spills

Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE**Advice on safe handling**

Use care in handling/storage.

Storage conditions

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

Suitable materials of construction

No information available

Unsuitable materials of construction

No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Biological limit values**

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Wear suitable protective clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Engineering controls

Adequate ventilation, eye-wash station, and emergency shower

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Chemical Name	OSHA PEL	ACGIH TLV
ETHYLENE OXIDE	STEL 5 ppm TWA 1 ppm	TWA 1 ppm
1,4-DIOXANE	360 mg/m ³	TWA 20 ppm
PROPYLENE OXIDE	100 ppm 240 mg/m ³	TWA 2 ppm

9. PHYSICAL AND CHEMICAL PROPERTIES

pH	7.5- 8.5
Appearance	Clear colorless liquid
Odor	Characteristic
Odor Threshold	No information available
Melting/freezing point	< 40
Initial boiling point/boiling range	> 212 °F (> 100 °C)
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapor pressure	< 1.0 mm Hg estimated
Vapor density	No information available
VOC content	No information available
Specific gravity	1.000-1.100
Solubility	No information available
Partition coefficient n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available

10. STABILITY AND REACTIVITY

Chemical stability	Stable under normal conditions of storage and handling.
Hazardous polymerization	Polymerization will not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatibilities	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Acute symptoms and effects

Eye Direct contact with eyes may cause temporary irritation.

Skin No adverse effects due to skin contact are expected.

Ingestion Expected to be a low ingestion hazard.

Inhalation No adverse effects due to inhalation are expected.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity Not available.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens Not available.

Reproductive effects This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Further information This product has no known adverse effect on human health.

12. ECOLOGICAL INFORMATION

Test Material	Parameter	Result
Product	48 hr LC ₅₀ , Daphnia Magna	42,430 mg/L
	96 hr LC ₅₀ , Fathead minnow	26,030 mg/L

Persistence No information available

Bioaccumulative potential No information available

Partition coefficient n-octanol / water (log Kow)	2-Methyl-oxirane, polymer with oxirane, monobutyl ether 1.1
Mobility	No information available
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

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	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 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
Yes	No	No	No	No

Section 313 Toxic Chemicals (40 CFR 372)

Chemical Name	CAS Number	Percent by Weight
None		

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

1,4-DIOXANE (CAS 123-91-1) Listed: January 1, 1988

PROPYLENE OXIDE (CAS 75-56-9) Listed: October 1, 1988

International Inventories

Country(s) or region (yes/no)*	Inventory name	On inventory
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. OTHER INFORMATION

HMIS Ratings	Health—0; Flammability—0; Reactivity—0
NFPA Ratings	Health—0; Flammability—0; Reactivity—0; Special Hazard—None
HMIS and NFPA Rating Scale	Minimal—0; Slight—1; Moderate—2; Serious—3; Severe—4
SDS Issue Date	January 19, 2016
Revision Date	

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.