



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

Safety Data Sheet

KR-60L

1. IDENTIFICATION

Product name KR-60L
Description Aqueous bisulfite solution, catalyzed
Product class Boiler
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 1-800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification Respiratory Sensitization, Category 1
Signal word Danger
Hazard statements May cause allergy, asthma symptoms, or breathing difficulties if inhaled.

Pictograms of related hazards



Precautionary statements

Prevention

Avoid breathing fumes, mists, vapors, or spray.
In case of inadequate ventilation, wear respiratory protection.

Response

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER or health care provider.

Disposal

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %
Sodium bisulfite	7631-90-5	20-30
Potassium hydroxide	1310-58-3	<2

4. FIRST-AID MEASURES

Eye contact	Flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally to ensure complete rinsing. Remove contact lenses if present and easy to do, then resume rinsing. Get medical attention if symptoms occur.
Skin contact	Remove contaminated clothing and wash the affected area with soap and water. Wash contaminated clothing before reuse.
Ingestion	If swallowed, DO NOT induce vomiting. Rinse mouth drink one to two glasses of water; get medical attention for further instruction. Never give anything by mouth to an unconscious individual.
Inhalation	If inhaled, move victim to fresh air. Seek emergency medical attention if breathing is difficult; perform artificial respiration if breathing stops.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use extinguishing media appropriate for the surrounding fire.
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	No information available
Hazardous combustion products	Sodium oxides, sulfur oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Evacuate the area of all non-essential personnel. Do not touch spilled material without proper protective equipment. Ventilate the area and mitigate further release if it is safe to do so. Avoid contact with eyes.
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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. 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.
- Storage conditions** Store in a cool, 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** No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Eye/face protection** Chemical splash goggles
- Skin protection** Chemical-resistant gloves and body-covering clothing
- Respiratory protection** Respiratory protection is not normally required. A respirator is recommended if significant mists, vapors, or aerosols are generated.
- Engineering controls** Adequate ventilation, eye-wash station, and emergency shower.
- General hygiene considerations** Do not eat, drink, or smoke while handling this product.

Chemical Name	OSHA PEL	ACGIH TLV
Sodium bisulfite	TWA: 5 mg/m ³	TWA: 5 mg/m ³
Potassium hydroxide	Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³

9. PHYSICAL AND CHEMICAL PROPERTIES

pH	5.0–6.0
Appearance	Clear pale yellow to pale pink liquid
Odor	Sulfur

Odor Threshold	No information available
Melting/freezing point	16°F (-9°C)
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	No information available
Vapor density	No information available
VOC content	No information available
Specific gravity	1.20–1.24
Solubility	Completely soluble in water
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	Extreme temperatures, incompatibilities.
Incompatibilities	Oxidizers, acids, steel, aluminum
Hazardous decomposition products	Oxides of sulfur

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure Skin, eyes, ingestion

Acute toxicity

Test Material	Parameter	Result
Sodium bisulfite	LD ₅₀ , Oral (rat)	2,000 mg/kg
Potassium hydroxide	LD ₅₀ , Oral (rat)	273 mg/kg
	LD ₅₀ , Dermal (rabbit)	1,260 mg/kg
Product	Acute toxicity estimate	>4000 mg/kg

Acute symptoms and effects

Eye	Eye irritation with or without pain, burning, itching, redness, and discharge.
Skin	Skin irritation with or without pain, burning, itching, redness, and swelling. Symptoms may be exacerbated by open wounds, excoriations, rashes, or other skin breaches.
Ingestion	Gastrointestinal distress with or without nausea, vomiting, and diarrhea. Ingestion may invoke or exacerbate allergic reactions in sulfite-allergic individuals including, but not limited to, asthma symptoms, skin rashes, and itching.
Inhalation	Upper respiratory irritation with or without cough, watering of the eyes, and postnasal drip.
Reproductive effects	No information available
Teratogenicity	No information available
Mutagenicity	No information available
Embryotoxicity	No information available
Sensitization to product	Inhalation may invoke or exacerbate symptoms of asthma or other respiratory hypersensitivities in sulfite-allergic individuals.
Synergistic products	No information available
Carcinogenicity	No components have been identified as carcinogenic by OSHA, NTP, or IARC.
Chronic	No information available

12. ECOLOGICAL INFORMATION

Test Material	Parameter	Result
Product	48 hr LC ₅₀ , Daphnia Magna	1,992.90 mg/L
	96 hr LC ₅₀ , Fathead minnow	1,595.63 mg/L

Persistence	No information available
Bioaccumulative potential	No information available
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 UN 2693
 Proper shipping name Bisulfites, aqueous solutions, n.o.s. (contains sodium bisulfite)
 Primary hazard class/division 8
 Packing group III
 Label Corrosive

15. REGULATORY INFORMATION

OSHA Hazard Communication Status Danger Respiratory Sensitization, Category 1
 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	CERCLA Reportable Quantity (RQ)
Sodium bisulfite	5,000 lb
Product	>15,000 lb

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		

16. OTHER INFORMATION

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