



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

Safety Data Sheet

KR-152SBL+

1. IDENTIFICATION

Product name KR-152SBL+

Description Stabilized bromine solution

Product class Biocide

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

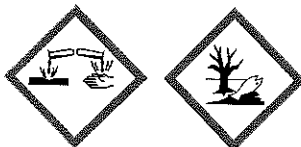
2. HAZARDS IDENTIFICATION

Hazard classification Skin Corrosion, Category 1
Serious Eye Damage, Category 1
Aquatic Environment Toxicity: Acute, Category 2
Aquatic Environment Toxicity: Chronic, Category 2

Signal word Danger

Hazard statements Causes severe skin burns and eye damage.
Causes serious eye damage.
Toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

Pictograms of related hazards



Precautionary statements

Prevention

Do not breathe fumes, mist, vapors, or spray.
Wash skin thoroughly after handling.
Wear protective gloves, protective clothing, eye protection, and face protection.
Avoid release to the environment.

Response

Wash contaminated clothing before reuse.
Store in a dry place. Store in a closed container.
Specific measures:

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately contact a POISON CENTER or health care provider.

IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or emergency shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately contact a POISON CENTER or health care provider.

Storage

Store locked up.

Store in a closed container.

Store in a well-ventilated place. Keep cool.

Disposal

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS # | Weight % |
|-------------------------------------|--------------|----------|
| Sulfamic acid, N-bromo, sodium salt | 1004542-84-0 | 10-20 |
| Sodium hydroxide | 1310-73-2 | 1-5 |
| Non-hazardous substances | Proprietary | 75-90 |

4. FIRST-AID MEASURES

Eye contact

Immediately 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. Do not wait for symptoms to develop. Get medical attention immediately.

Skin contact

Immediately remove all contaminated clothing. Rinse with copious amounts of water; use an emergency shower if available. Wash contaminated clothing before reuse.

Ingestion

If swallowed, DO NOT induce vomiting. Rinse mouth and get emergency medical attention. Do not give anything by mouth unless instructed to do so by a poison center or health care provider.

Inhalation

If inhaled, move victim to fresh air. Seek emergency medical attention if breathing is difficult; perform artificial respiration if breathing stops.

Note to health care provider

Esophageal corrosion may contraindicate the use of gastric lavage and/or activated charcoal.

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 | Reaction with metals may evolve highly flammable hydrogen gas. Combustion may produce toxic gases. |
| Hazardous combustion products | Hydrogen bromide, hydrogen chloride, bromine, chlorine, nitrogen 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. |
| Methods for clean-up | |
| <u>Small spills</u> | 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. |
| <u>Large spills</u> | 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 | Corrosion-resistant container; original container only is recommended. |
| Unsuitable materials of construction | Metals |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|---------------------------------------|---|
| Eye/face protection | Chemical splash goggles, face shield |
| Skin protection | Chemical-resistant gloves and body-covering clothing |
| Respiratory protection | Observe published airborne exposure limits. NIOSH approved respirator should be used in accordance with OSHA respiratory protection requirements (29 CFR 1910.134). |
| 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 |
|-------------------------------------|------------------------------|------------------------------|
| Sulfamic acid, N-bromo, sodium salt | None established | None established |
| Sodium hydroxide | Ceiling: 2 mg/m ³ | Ceiling: 2 mg/m ³ |
| Non-hazardous substances | None established | None established |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|--------------------------|
| pH | >13.0 |
| Appearance | Clear golden liquid |
| Odor | Mild to no odor |
| Odor Threshold | No information available |
| Melting/freezing point | 25°F (-3.9°C) |
| Initial boiling point/boiling range | No information available |
| 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 | 1.28-1.32 |
| 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 | Extreme temperatures, incompatibilities |
| Incompatibilities | Strong acids, oxidizers |
| Hazardous decomposition products | No known non-thermal decomposition hazards. |

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure Skin, eyes, ingestion

Acute toxicity**Sodium hydroxide**

| Parameter | Result |
|------------------------------------|---------------|
| LD ₅₀ , Oral (rat) | 140-340 mg/kg |
| LD ₅₀ , Dermal (rabbit) | 1,350 mg/kg |

Acute symptoms and effects**Eye**

Severe eye irritation with serious damage including, but not limited to, tissue destruction, corneal opacification, and temporary or permanent blindness.

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. May cause irritation or corrosion of the oral and esophageal mucosa.

Inhalation

Upper respiratory irritation with or without cough, watering of the eyes, and postnasal drip. Aspiration of liquid or vomit may cause severe respiratory distress, airway corrosion, and acute lung damage.

Reproductive effects

No information available

Teratogenicity

No information available

Mutagenicity

No information available

Embryotoxicity

No information available

Sensitization to product

No information available

Synergistic products

No information available

Carcinogenicity

No information available

Chronic

No information available

12. ECOLOGICAL INFORMATION**Aquatic toxicity****Sodium hydroxide**

| Parameter | Result |
|--|-----------|
| 96 hr LC ₅₀ , Pimephales promelas | 9.35 mg/L |
| 48 hr EC ₅₀ , Daphnia Magna | 3.83 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 As sold, discarded product would be considered a RCRA hazardous waste based on the corrosive characteristics. The EPA hazardous waste number is D002.

14. TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number UN1760
Proper shipping name Corrosive liquids, n.o.s. (contains bromide salts)
Primary hazard class/division 8
Secondary hazard None
Packing group III
Label Corrosive

15. REGULATORY INFORMATION

OSHA Hazard Communication Status Skin Corrosion, Category 1
 Serious Eye Damage, Category 1
 Aquatic Environment Toxicity: Acute, Category 2
 Aquatic Environment Toxicity: Chronic, Category 2

EPA Registration Number 63838-5-66126

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) |
|-------------------------------------|--|
| Sulfamic acid, N-bromo, sodium salt | None |
| Sodium hydroxide | 1,000 lb |
| Non-hazardous substances | None |
| Product | 20,000 lb (Notify the EPA of spills exceeding this amount.) |

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—0

NFPA Ratings Health—2; 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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