



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

Safety Data Sheet

KR-148NLB

1. IDENTIFICATION

Product name KR-148NLB
Description Microbiocide Solution
Product class Biocide
Supplier address Suite 450
One North Shore Center
12 Federal Street
Pittsburgh, PA 15212
Telephone numbers
Company Phone Number (412) 321-9800
Emergency Telephone CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification Skin Corrosion, Category 1
Serious Eye Damage, Category 1
Specific Organ Toxicity: Single Exposure, Respiratory,
Category 3
Aquatic Environment Toxicity: Acute, Category 2
Signal word Danger
Hazard statements Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause respiratory irritation.
Toxic to aquatic life.

Pictograms of related hazards



Precautionary statements

Prevention

Wash skin thoroughly after handling.
Wear protective gloves, protective clothing, eye protection, and face protection.
Avoid breathing fumes, mist, vapors, or spray.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.

Response

Wash contaminated clothing before reuse.
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 well-ventilated place. Keep container tightly closed.

Disposal

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %
Bronopol (INN)	52-51-7	5–6
5-Chloro-2-methyl-2H-isothiazol-3-one with 2-methyl-2H-isothiazol-3-one (3:1) (CMIT/MIT mix)	55965-84-9	<1.5
Non-hazardous substances	Proprietary	>92

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. 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	Water spray jet, extinguishing powder, carbon dioxide, foam
Unsuitable extinguishing media	No information available
Protective equipment and precautions for firefighters	Stay upwind of the fire. Full protective equipment including self-contained breathing apparatus should be used. Use water to cool closed containers. Contain water runoff if possible.
Specific hazards	Combustion may produce toxic gases.

Hazardous combustion products Carbon oxides, nitrogen oxides, sulfur dioxide, hydrogen chloride

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. Surfaces may be decontaminated with a 5% sodium hydrogen sulfite and 5% sodium bicarbonate solution.
<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. Surfaces may be decontaminated with a 5% sodium hydrogen sulfite and 5% sodium bicarbonate solution. In case of sewer discharge, collect contaminated water and add 10% sodium bisulfite solution.

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	Original container only is recommended.
Unsuitable materials of construction	No information available

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
Bronopol (INN)	None established	None established
5-Chloro-2-methyl-2H-isothiazol-3-one with 2-methyl-2H-isothiazol-3-one (3:1) (CMIT/MIT mix)	None established	None established
Non-hazardous substances	None established	None established

9. PHYSICAL AND CHEMICAL PROPERTIES

pH	3.0-4.0
Appearance	Colorless to pale yellow liquid
Odor	Mild
Odor Threshold	No information available
Melting/freezing point	32°F (0°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	23 mbar
Vapor density	No information available
VOC content	No information available
Specific gravity	1.030-1.040
Solubility	Complete
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	Bases, reducing agents, strong oxidizing agents, nucleophiles
Hazardous decomposition products	No known non-thermal decomposition hazards.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure Skin, eyes, ingestion

Acute toxicity***Bronopol (INN)***

Parameter	Result
LD ₅₀ , Oral (rat)	180 mg/kg
LD ₅₀ , Oral (mouse)	270 mg/kg
LD ₅₀ , Dermal (rat)	1,600 mg/kg
LC ₅₀ , Inhalation (rat)	>5,000 mg/m ³ /6hr

Acute symptoms and effects

Eye	Eye irritation with or without pain, burning, itching, redness, discharge, and serious eye damage.
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	Not teratogenic per OECD 414 / EPA 83-3a.
Mutagenicity	Not mutagenic per Ames Test.
Embryotoxicity	No information available
Sensitization to product	No information available
Synergistic products	No information available
Carcinogenicity	Nitrites and nitrates have been identified as probable human carcinogens by the IARC (group 2A).
Chronic	No information available

12. ECOLOGICAL INFORMATION**Aquatic toxicity****Bronopol (INN)**

Parameter	Result
96 hr LC ₅₀ , Bluegill sunfish	9.34-13.14 ppm
96 hr LC ₅₀ , Bluegill sunfish	20-51 ppm
96 hr LC ₅₀ , Rainbow trout	18-45 ppm
48 hr EC ₅₀ , Daphnia magna	1.0-3.2 ppm

5-Chloro-2-methyl-2H-isothiazol-3-one with 2-methyl-2H-isothiazol-3-one (3:1) (CMIT/MIT mix)

Parameter	Result
3 hr EC ₅₀ , Activated sludge	0.97 mg/L

Persistence

Active substance CIT/MIT is biodegradable per OECD 301 D (closed bottle test); Oxygen consumption: >60%

Bioaccumulative potential

Not expected to bioaccumulate; log Kow: -0.71 bis + 0.75

Mobility

No information available

13. DISPOSAL CONSIDERATIONS**Disposal**

Dispose of in accordance with federal, state, and local regulations. Biocide and pesticide wastes are acutely hazardous. Improper disposal or excess product or rinsate is a violation of Federal law.

RCRA status

Biocide and pesticide wastes are acutely hazardous. Improper disposal or excess product or rinsate is a violation of Federal law. Contact an applicable environmental Control Agency, or the Hazardous Waste representative at your nearest EPA Regulation Office for guidance.

14. TRANSPORT INFORMATION**US Department of Transportation (DOT)**

UN Number	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (contains Bronopol)
Primary hazard class/division	9
Secondary hazard	None
Packing group	III
Label	Corrosive

15. REGULATORY INFORMATION**OSHA Hazard Communication Status**

Skin Corrosion, Category 1
 Serious Eye Damage, Category 1
 Specific Organ Toxicity: Single Exposure, Respiratory, Category 3
 Aquatic Environment Toxicity: Acute, Category 2

EPA Registration Number

67071-18-66126

TSCA

The ingredients of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLAEPA Hazardous Substances (40 CFR 302)

Chemical Name	Reportable Quantity (RQ)
Bronopol (INN)	None
5-Chloro-2-methyl-2H-isothiazol-3-one with 2-methyl-2H-isothiazol-3-one (3:1) (CMIT/MIT mix)	None
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		

16. OTHER INFORMATION

HMIS Ratings	Health—3; Flammability—0; Reactivity—0
NFPA Ratings	Health—3; Flammability—0; Reactivity—0
HMIS/NFPA Rating Scale	Minimal—0; Slight—1; Moderate—2; Serious—3; Severe—4
SDS Issue Date	4/30/2015
Revision Date	5/30/2019
Version	2

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