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Pittsburgh, PA 15212

## KR-148NL

### MATERIAL SAFETY DATA SHEET

FOR EMERGENCY ASSISTANCE  
CALL: 1-800-424-9300 CHEMTREC

FOR ADDITIONAL INFORMATION  
CALL: 412-321-9800

#### SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME: **KR-148NL**  
CHEMICAL DESCRIPTION: Isothiazolin solution  
PRODUCT CLASS: Biocide  
VERSION: 1-26-12

#### SECTION 2: INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %	OSHA PEL	ACGIH TLV
Mixture containing 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	1.4-1.6	Not available	Not available

\*Contains 1.11% 5-Chloro-2-methyl-2H-isothiazol-3-one (CAS Number 26172-55-4 and 0.37% 2-methyl-2H-isothiazol-3-one (CAS Number 2682-20-4).

#### SECTION 3: HAZARDS IDENTIFICATION

##### \*\*\*\*\*EMERGENCY OVERVIEW\*\*\*\*\*

Clear, colorless liquid with a mild odor.  
**DANGER!**  
Corrosive.  
May be corrosive to metal.  
Causes severe skin burns and eye damage.  
May cause sensitization by skin contact.  
Harmful if inhaled or if absorbed through the skin.  
May cause an allergic skin reaction.

\*\*\*\*\*  
PRIMARY ROUTES OF ENTRY: Eye contact, skin contact, inhalation of product mists, and absorption through the skin

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Conditions of the eye, skin, and respiratory tract may be aggravated by overexposure to this product.

**POTENTIAL HEALTH EFFECTS:**

**EYE CONTACT:** This product may cause eye irritation and burns. The extent of injury depends on the length of exposure, solution concentration, and first aid measures.

**SKIN CONTACT:** This product may cause skin irritation and burns. This product is harmful if absorbed through the skin. Skin contact can cause an allergic skin reaction.

**INGESTION:** This product is harmful if swallowed.

**INHALATION:** Inhalation of product mists or vapors may cause respiratory tract irritation or damage.

**SUBCHRONIC, CHRONIC:** Chronic exposure can result in skin sensitization.

**CARCINOGENICITY:**

NTP: No ingredients listed in this section

IARC: No ingredients listed in this section

OSHA: No ingredients listed in this section

**SECTION 4: FIRST AID MEASURES**

**EYE CONTACT:** In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally to ensure complete rinsing. Get medical attention immediately.

**SKIN CONTACT:** In case of skin contact, remove contaminated clothing and wash the affected area thoroughly with plenty of soap and water. Wash contaminated clothing before reuse. If irritation persists, get medical attention immediately.

**INGESTION:** If swallowed, do NOT induce vomiting. If victim is conscious and alert, give a large quantity of water to drink. Get medical attention immediately. Never give anything by mouth to an unconscious person.

**INHALATION:** If inhaled, remove victim to fresh air. If breathing stops, give artificial respiration. If breathing is difficult, have a trained medical person give oxygen. Get medical attention immediately.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage. Treat symptoms.

**SECTION 5: FIRE-FIGHTING MEASURES**

FLASHPOINT: Not flammable

LOWER FLAMMABLE LIMIT: Not applicable

UPPER FLAMMABLE LIMIT: Not applicable

AUTO-IGNITION TEMPERATURE: Not applicable

EXTINGUISHING MEDIA: Water spray jet, extinguishing powder, CO<sub>2</sub>, foam.

FIRE-FIGHTING INSTRUCTIONS: Exercise caution when fighting any chemical fire. A self-contained breathing apparatus and protective clothing is required.

FIRE & EXPLOSION HAZARDS: Exposure to fire conditions may result in emissions of sulfur dioxide and hydrogen chloride.

HAZARDOUS DECOMPOSITION PRODUCTS: In case of fire, toxic incineration products may be released such as: Sulphur dioxide (SO<sub>2</sub>), Hydrogen chloride (HCl), Carbon monoxide (CO) and Nitrogen oxides (NO<sub>x</sub>).

NFPA RATINGS: Health = 3 Flammability = 0 Reactivity = 0 Special Hazard = None

Hazard Rating Scale: 0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Wear protective clothing. Keep unprotected persons away. When selecting the protective suit it has to be paid attention to a complete and safe protection of skin and mucous membrane. Impermeable protective clothes, protective boots made of neoprene, complete face protection, nitrile-rubber-gloves with long tops. Provide extra ventilation as needed, contain the spill, recover as much liquid as possible, collect the residue onto an inert absorbent, and place the used absorbent in a suitable, corrosion-proof container. Decontaminate the area with a 10% sodium bisulfite solution.

As the product is hazardous for the aquatic environment, it must be prevented from reaching surface water. Inform respective authorities in case of seepage into water course or sewage system.

Dispose of unusable recovered liquid and used absorbent according to local, state, and federal regulations. Contact the local regional EPA for pesticide disposal information.

**SECTION 7: HANDLING AND STORAGE****HANDLING:**

Avoid contact with eyes, skin, and clothing.

Avoid breathing vapor or mist.

Decant carefully, avoid splashes.

Use with adequate ventilation.

Wash thoroughly after handling.

Do not take internally.

Keep container closed when not in use.

Have emergency equipment (for fires, spills, leaks, etc.) readily available.

**STORAGE:**

Store product in a cool, dry, well-ventilated area away from incompatible materials, food, and drinking water.

This product is corrosive to mild steel.

Do not store or transport in unlined metal containers.

Care should be taken to ensure that the appropriate material is used for storage tanks, process pipelines, valve gaskets, pump seals, valve seats, etc.

Store away from foodstuffs.

**SUGGESTED MATERIALS OF CONSTRUCTION:**

Storage Tanks: Fiberglass reinforced polyester, polyethylene, polypropylene, glass-lined steel, 316L stainless steel

Process Pipe Work: Polypropylene-lined steel pipes, polypropylene, glass-lined steel, 316L stainless steel

Flexible Process Pipelines: Nordel, polypropylene, viton, teflon-lined connector hoses

Valve Gaskets: Teflon TFE, Teflon FEP

Pump Seals: Ryton, polypropylene

Valve seats: Teflon PFA

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EYE/FACE PROTECTION:** Chemical splash goggles and full face shield.

**SKIN PROTECTION:** Chemical resistant gloves and protective clothing, such as coveralls, to avoid skin contact.

**RESPIRATORY PROTECTION:** If airborne concentrations exceed published exposure limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).

**ENGINEERING CONTROLS:** Use local exhaust ventilation to maintain airborne concentrations below exposure limits.

**WORK PRACTICES:** An eye wash station and safety shower should be accessible in the immediate area of use. Protective equipment should be cleaned thoroughly after each use.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

pH: 1.8-4.0

SPECIFIC GRAVITY: 1.02 g/mL

SOLUBILITY IN WATER: Fully miscible

BOILING POINT: 212 °F (100 °C)

FREEZING POINT: ~32 °F (0 °C)

VAPOR DENSITY (Air=1): 0.62 est.

VAPOR PRESSURE: 27 mbar @ 20 °C

APPEARANCE AND ODOR: Clear, colorless liquid with a mild odor

### SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Before handling, the product should not be diluted or mixed with other chemicals, in order to avoid any negative influences on the active ingredient(s).

INCOMPATIBILITIES: Nucleophiles, reducing agents, strong oxidizing agents, alkalis

HAZARDOUS DECOMPOSITION PRODUCTS: In case of fire, toxic incineration products may be released such as: Sulphur dioxide (SO<sub>2</sub>), Hydrogen chloride (HCl), Carbon monoxide (CO) and Nitrogen oxides (NO<sub>x</sub>).

### SECTION 11: TOXOLOGICAL INFORMATION

ON PRODUCT:

Test Material	Oral LD50 (rat)	Dermal LD50 (rat)	Inhalation LC50 (rat)
Product	5,500 mg/Kg	> 2,000 mg/Kg	Not available

**SECTION 12: ECOLOGICAL INFORMATION**

## ON PRODUCT:

Test Material	Aquatic Toxicity Data
Product	48 hr LC50 (Daphnia magna): 14.1 mg/L 96 hr LC50 (Fathead minnow): 16.9 mg/L

The product contains materials that are harmful to the environment. Avoid transfer into the environment. Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected. The active substance CIT/MIT proved to be biodegradable.

**SECTION 13: DISPOSAL**

RCRA STATUS: Discarded product, as sold, would be considered a RCRA Hazardous Waste based on the characteristic of corrosivity. The EPA Hazardous Waste Number is D002.

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

**SECTION 14: TRANSPORTATION**

## DOT CLASSIFICATION:

UN Number: UN 3265

Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.  
(mixture containing 5-chloro-2-methyl-2H-isothiazol-3-one  
and 2-methyl-2H-isothiazol-3-one (3:1))

Primary Hazard Class/Division: 8

Packing Group: III

Label: Corrosive

**SECTION 15: REGULATORY INFORMATION**

OSHA Hazard Communication Status: Hazardous

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)

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                      yes                      no                      no                      no

Section 313 Toxic Chemicals (40 CFR 372):

Chemical Name                      CAS Number                      Percent by Weight  
None

**SECTION 16: OTHER INFORMATION**

HMIS RATINGS:            Health = 3            Flammability = 0            Reactivity = 0

Hazard Rating Scale: 0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

EPA REGISTRATION NUMBER: 67071-38-66126

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