

# Safety Data Sheet

## KR-154L

### 1. IDENTIFICATION

<b>Product name</b>	KR-154L
<b>Description</b>	Microbiocide Solution
<b>Product class</b>	Biocide
<b>Supplier address</b>	Suite 450 One North Shore Center 12 Federal Street Pittsburgh, PA 15212
<b>Telephone numbers</b>	
<u>Company Phone Number</u>	(412) 321-9800
<u>Emergency Telephone</u>	CHEMTREC 800-424-9300

### 2. HAZARDS IDENTIFICATION

<b>Hazard classification</b>	Flammable Liquids, Category 4 Acute Toxicity: Oral, Category 3 Skin Corrosion, Category 1B Respiratory Sensitization, Category 1A Serious Eye Damage, Category 1 Acute Toxicity: Inhalation, Category 3 Skin Sensitization, Category 1 Specific Organ Toxicity, Single Exposure, Category 1 Aquatic Environment Toxicity: Acute, Category 1
<b>Signal word</b>	Danger
<b>Hazard statements</b>	Combustible liquid. Toxic if swallowed. Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes serious eye damage. Toxic if inhaled. May cause an allergic skin reaction. Causes damage to organs. Very toxic to aquatic life.

**Pictograms of related hazards**



**Precautionary statements**Prevention

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.  
Wear protective gloves, protective clothing, eye protection, and face protection.  
Wash skin thoroughly after handling.  
Do not eat, drink, or smoke when using this product.  
Avoid breathing fumes, mist, vapors, or spray.  
Wear respiratory protection.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing should not be allowed out of the workplace.  
Avoid release to the environment.

Response

In case of fire: Use water spray, foam, dry chemical, or carbon dioxide for extinction.  
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.  
If experiencing respiratory symptoms: Contact a POISON CENTER or health care provider.  
If skin irritation or a rash occurs: Get medical attention.  
Take off contaminated clothing and wash it before reuse.  
If exposed or concerned: Call 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 %
Glutaraldehyde	111-30-8	43.65–46.35
Methanol	67-56-1	<4
Water	7732-18-5	53.65–56.35

**4. FIRST-AID MEASURES****Eye contact**

Immediately flush eyes with water for 30 minutes, lifting lower and upper eyelids occasionally to ensure complete rinsing. Remove contact lenses after the first 5 minutes and continue rinsing. Seek emergency medical attention without delay.

**Skin contact**

Immediately remove all contaminated clothing. Wash with soap and water for 15-20 minutes. Contact a poison center or health care provider. Wash clothing before reuse; discard clothing that cannot be properly decontaminated.

<b>Ingestion</b>	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. Do not wait for symptoms to appear.
<b>Inhalation</b>	If inhaled, move victim to fresh air. Seek emergency medical attention if breathing is difficult; perform artificial respiration if breathing stops.
<b>Note to health care provider</b>	Allergic reaction or asthma exacerbation may occur in sensitized individuals. Esophageal corrosion may contraindicate the use of gastric lavage and/or activated charcoal. Eye contamination is an ophthalmological emergency.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Use extinguishing media appropriate for the surrounding fire.
<b>Unsuitable extinguishing media</b>	No information available
<b>Protective equipment and precautions for firefighters</b>	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.
<b>Specific hazards</b>	Combustion may produce toxic gases.
<b>Hazardous combustion products</b>	Carbon oxides, toxic vapor

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	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.
<b>Methods for clean-up</b>	
<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

<b>Advice on safe handling</b>	Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash hands thoroughly after handling.
<b>Storage conditions</b>	Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.
<b>Suitable materials of construction</b>	No information available
<b>Unsuitable materials of construction</b>	No information available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Eye/face protection</b>	Chemical splash goggles, face shield
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<b>Skin protection</b>	Chemical-resistant gloves and body-covering clothing
<b>Respiratory protection</b>	Observe published airborne exposure limits. NIOSH approved respirator should be used in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).
<b>Engineering controls</b>	Adequate ventilation, eye-wash station, and emergency shower
<b>General hygiene considerations</b>	Do not eat, drink, or smoke while handling this product.

Chemical Name	OSHA PEL	ACGIH TLV
Glutaraldehyde	0.2 ppm; 0.8 mg/m <sup>3</sup>	0.05 ppm
Methanol	260 mg/m <sup>3</sup>	200 ppm; STEL: 250 ppm
Water	None established	None established

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>pH</b>	3.7 [50% solution]
<b>Appearance</b>	Colorless liquid
<b>Odor</b>	Pungent
<b>Odor Threshold</b>	No information available
<b>Melting/freezing point</b>	6.8°F (-14°C)
<b>Initial boiling point/boiling range</b>	370°F (188°C)
<b>Flash point</b>	160°F (71°C)
<b>Evaporation rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Upper/lower flammability or explosive limits</b>	No information available
<b>Vapor pressure</b>	0.13 hPa
<b>Vapor density</b>	No information available
<b>VOC content</b>	No information available
<b>Specific gravity</b>	1.076-1.156
<b>Solubility</b>	No information available
<b>Partition coefficient n-octanol/water</b>	No information available
<b>Auto-ignition temperature</b>	No information available
<b>Decomposition temperature</b>	370°F (188°C)
<b>Viscosity</b>	No information available

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable under normal conditions of storage and handling.
<b>Hazardous polymerization</b>	Polymerization will not occur.
<b>Conditions to avoid</b>	Extreme temperatures, incompatibilities
<b>Incompatibilities</b>	Amines, ammonia, strong acids, strong bases, strong oxidizers, aluminum, carbon steel, copper, iron, mild steel

**Hazardous decomposition products** No known non-thermal decomposition hazards.

## 11. TOXICOLOGICAL INFORMATION

**Likely routes of exposure** Skin, eyes, ingestion

### Acute toxicity

#### *Glutaraldehyde*

Parameter	Result
LD50, Oral (rat)	134 mg/kg
LD50, Dermal (rat)	2,500 mg/kg
LC50, Inhalation (rat)	480 mg/m <sup>3</sup> /4hr

#### *Methanol*

Parameter	Result
LD50, Oral (rat)	5,628 mg/kg
LD50, Dermal (rabbit)	15,800 mg/kg
LC50, Inhalation (rat)	64,000 ppm
LDLo, Oral (human)	143 mg/kg

#### *KR-154L, 50% solution*

Parameter	Result
LD50, Oral (rat)	200 mg/kg
LD50, Dermal (rabbit)	>2,000 mg/kg
LC50, Inhalation (rat)	0.28 mg/L
LC50, Inhalation (rat)	0.35 mg/L

### Acute symptoms and effects

<b>Eye</b>	Severe eye irritation with serious damage including, but not limited to, tissue destruction, corneal opacification, and temporary or permanent blindness. Vapor may cause eye irritation with or without generalized discomfort and redness.
<b>Skin</b>	Skin irritation with or without pain, burning, itching, redness, and swelling. Symptoms may be exacerbated by open wounds, excoriations, rashes, or other skin breaches. Onset of symptoms may be delayed relative to exposure.
<b>Ingestion</b>	Ingestion of methanol causes symptoms of acute intoxication as well as acute gastrointestinal distress with or without nausea, vomiting, and diarrhea. Liver toxicity, central nervous system depression, and permanent blindness may occur. Sufficiently large doses may cause loss of consciousness and death.
<b>Inhalation</b>	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.
<b>Reproductive effects</b>	No information available
<b>Teratogenicity</b>	Glutaraldehyde was not found to cause birth defects in laboratory animals.

<b>Mutagenicity</b>	Genetic toxicity studies were predominantly negative in in vitro animal studies on glutaraldehyde.
<b>Embryotoxicity</b>	No information available
<b>Sensitization to product</b>	No information available
<b>Synergistic products</b>	No information available
<b>Carcinogenicity</b>	No components have been identified as carcinogenic by OSHA, NTP, or IARC.
<b>Chronic</b>	No information available

## 12. ECOLOGICAL INFORMATION

### Aquatic toxicity

#### Glutaraldehyde

Parameter	Result
96 hr LC50, Bluegill sunfish	12.2 ppm
96 hr LC50, Fathead minnow	5.4 ppm
96 hr LC50, Rainbow trout	9.5 ppm
48 hr EC50, Daphnia magna	0.75 ppm

#### Methanol

Parameter	Result
48 hr EC50, Daphnia magna	21,100-23,400 mg/L
96 hr LC50, Rainbow trout	19,500-20,700 mg/L
96 hr LC50, Fathead minnow	27,200-29,000 mg/L
96 hr LC50, Bluegill sunfish	13,540-17,740 mg/L
96 hr LC50, Bluegill sunfish	15,500 mg/L
96 hr LC50, Rainbow trout	20,100 mg/L
48 hr EC50, Daphnia magna	3,289 mg/L

#### KR-154L

Parameter	Result
48 hr EC50, Ceriodaphnia dubia	17.68 mg/L

<b>Persistence</b>	No information available
<b>Bioaccumulative potential</b>	No information available
<b>Mobility</b>	No information available

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal</b>	Dispose of in accordance with federal, state, and local regulations. Do not discharge into sewers, surface waters, or into soil. Waste characterizations and compliance with applicable laws are the sole responsibility of the waste generator.
<b>RCRA status</b>	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)

<b>UN Number</b>	UN2922
<b>Proper shipping name</b>	Corrosive liquids, toxic, n.o.s. (contains glutaraldehyde)
<b>Primary hazard class/division</b>	8
<b>Secondary hazard</b>	6.1
<b>Packing group</b>	II
<b>Label</b>	Corrosive, Toxic

## 15. REGULATORY INFORMATION

<b>OSHA Hazard Communication Status</b>	Flammable Liquids, Category 4 Acute Toxicity: Oral, Category 3 Skin Corrosion, Category 1B Respiratory Sensitization, Category 1A Serious Eye Damage, Category 1 Acute Toxicity: Inhalation, Category 3 Skin Sensitization, Category 1 Specific Organ Toxicity, Single Exposure, Category 1 Aquatic Environment Toxicity: Acute, Category 1
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**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)
Methanol	5,000 lb
Product (Notify the EPA of spills exceeding this amount.)	125,000 lbs

#### 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
Methanol	67-56-1	<4

##### California Prop 65

Chemical Name	CAS Number	Hazard
Methanol	67-56-1	developmental

**16. OTHER INFORMATION**

<b>HMIS Ratings</b>	Health—3; Flammability—2; Reactivity—2
<b>NFPA Ratings</b>	Health—3; Flammability—2; Reactivity—2
<b>HMIS/NFPA Rating Scale</b>	Minimal—0; Slight—1; Moderate—2; Serious—3; Severe—4
<b>SDS Issue Date</b>	5/1/2018
<b>Revision Date</b>	4/15/2025
<b>Version</b>	2

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