



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

Safety Data Sheet

KR-LF0671

patent pending

1. IDENTIFICATION

Product name	KR-LF0671
Description	Peroxide Solution
Product class	Specialty
Supplier address	Suite 450 One North Shore Center 12 Federal Street Pittsburgh, PA 15212
Telephone numbers	
<u>Company Phone Number</u>	(412) 321-9800
<u>Emergency Telephone</u>	CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification	Oxidizing Liquids, Category 1 Acute Toxicity: Oral, Category 4 Skin Corrosion, Category 1 Serious Eye Damage, Category 1 Aquatic Environment Toxicity: Acute, Category 3 Aquatic Environment Toxicity: Chronic, Category 3
Signal word	Danger
Hazard statements	May cause fire or explosion; strong oxidizer. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Pictograms of related hazards



Precautionary statements

Prevention

- Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
- Keep away from clothing and other combustible materials.
- Wear protective gloves, protective clothing, eye protection, and face protection.
- Wear fire resistant or flame retardant clothing.

Wash skin thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Avoid release to the environment.

Response

Wash contaminated clothing before reuse.
IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Immediately contact a POISON CENTER or health care provider.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
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.

Storage

Store separately.
Store locked up.

Disposal

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %
Hydrogen peroxide	7722-84-1	25–35
Non-hazardous substances	Proprietary	>65

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
Unsuitable extinguishing media	Carbon dioxide, dry chemical
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	Violent combustion may occur on contact with oxidizable substances. Dried product on clothing or other combustible material may cause fire or explosion. Sealed containers may rupture when heated.
Hazardous combustion products	Oxygen gas

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	Closed vented container. 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
Hydrogen peroxide	1.4 mg/m ³	1 ppm
Non-hazardous substances	None established	None established

9. PHYSICAL AND CHEMICAL PROPERTIES

pH	1.0-3.0
Appearance	Clear colorless liquid
Odor	Slight acid
Odor Threshold	No information available
Melting/freezing point	-13°F (-25°C)
Initial boiling point/boiling range	220°F (105°C)
Flash point	No information available
Evaporation rate	<1 [BuAc = 1]
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapor pressure	19.0 @ 77°F (25°C)
Vapor density	1.17 [air=1]
VOC content	No information available
Specific gravity	1.111-1.117
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	Heat, combustible material, incompatibilities
Incompatibilities	Reducing agents, wood, paper, organics, iron, heavy metals, copper, alkali
Hazardous decomposition products	Release of oxygen gas may support combustion of other material.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure Skin, eyes, ingestion

Acute toxicity

Hydrogen peroxide

Parameter	Result
LD ₅₀ , Oral (rat)	376 mg/kg
LD ₅₀ , Oral (rat)	910 mg/kg
LD ₅₀ , Oral (rat)	1,518 mg/kg
LD _{Lo} , Oral (human)	1,429 mg/kg
LC ₅₀ , Inhalation (rat)	2,000 mg/m ³ /4hr

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	No information available
Mutagenicity	No information available
Embryotoxicity	No information available
Sensitization to product	No information available
Synergistic products	No information available
Carcinogenicity	Hydrogen peroxide has been evaluated by the IARC and categorized as "not classifiable as to carcinogenicity in humans" (group 3).
Chronic	No information available

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Product

Parameter	Result
48 hr LC ₅₀ , Daphnia magna	25.99 mg/L

Hydrogen peroxide

Parameter	Result
96 hr LC ₅₀ , Bluegill sunfish	150 ppm
96 hr LC ₅₀ , Rainbow trout	93 ppm

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48 hr EC ₅₀ , Daphnia magna	2.23 mg/L
48 hr EC ₅₀ , Daphnia magna	24 ppm

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. Do not discharge into sewer or surface water.**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	UN2014
Proper shipping name	Hydrogen peroxide, aqueous solutions with not less than 20 percent but not more than 40 percent hydrogen peroxide
Primary hazard class/division	5.1
Secondary hazard	8
Packing group	II
Label	Oxidizer

15. REGULATORY INFORMATION

OSHA Hazard Communication Status Oxidizing Liquids, Category 1
 Acute Toxicity: Oral, Category 4
 Skin Corrosion, Category 1
 Serious Eye Damage, Category 1
 Aquatic Environment Toxicity: Acute, Category 3
 Aquatic Environment Toxicity: Chronic, Category 3

EPA Registration Number Not applicable**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)
Hydrogen peroxide	1,000 lb
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
Hydrogen peroxide	7722-84-1	1,000 lb	1,000 lb

Section 311 and 312 Health and Physical Hazards

Immediate	Delayed	Fire	Pressure	Reactivity
Yes	No	Yes	No	Yes

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—1
NFPA Ratings	Health—3; Flammability—0; Reactivity—1
HMIS/NFPA Rating Scale	Minimal—0; Slight—1; Moderate—2; Serious—3; Severe—4
SDS Issue Date	7/2/2024
Version	2

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