Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

SAFETY DATA SHEET

Hydrogen Peroxide 30%

1. Identification

Product identifier: Hydrogen Peroxide 30%
Product Code Number: 1403
Trade Name: Hydrogen Peroxide
Synonyms: Hydrogen Dioxide Solution
Chemical Formula: H2O2

Product Use: Process chemical, Laboratory and scientific research and development
Restrictions on use: None known.

Company Identification: Corco Chemical Corporation
299 Cedar Lane
Fairless Hills, PA 19030
Phone: 215-295-5006
Fax: 215-295-0781

24 Hour Emergency Telephone Number:
CHEMTREC (U.S.): 1-800-424-9300
CHEMTREC (Outside U.S.): 1-703-527-3887

SDS Date of Preparation: 07/31/2024

2. Hazard(s) identification

Classification of the Substance or Mixture:
Oxidizing Liquid Category 2
Eye Damage Category 1
Skin Corrosion Category 1B

Label Elements:
Danger!

Hazard Statements
H272 May intensify fire; oxidizer.
H314 Causes severe skin burns and eye damage.

Precautionary Statements
P210 Keep away from heat.
P220 Keep and Store away from clothing and combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P260 Do not breathe mist or vapors.
P264 Wash thoroughly after handling.
P280 Wear protective gloves, protective clothing, eye protection and face protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P310 Immediately call a POISON CENTER or doctor.
P363 Wash contaminated clothing before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310 Immediately call a POISON CENTER or doctor.
P370+P378 In case of fire: Use water spray, water fog, or foam to extinguish.
P405 Store locked up.
P501 Dispose of contents and container in accordance with local and national regulations.

Other Hazards: None known.

3. Composition/information on ingredients

Ingredient	CAS Number	Percent	Hazardous Chemical
Water	7732-18-5	70%	No
Hydrogen Peroxide	7722-84-1	30%	Yes

4. First-aid measures

Inhalation: Immediately remove victim to fresh air. If breathing is difficult, oxygen should be administered by qualified personnel. If breathing has stopped, administer artificial respiration. Get immediate medical attention.

Skin contact: Immediately flush skin with plenty of water for 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Launder clothing before re-use. (Discard contaminated shoes).

Eye contact: Immediately flush thoroughly with water for at least 20 minutes, while holding the eye lids open to be sure the material is washed out. Remove contact lenses if present and easy to do. Get immediate medical attention.

Ingestion: Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. Keep the victim calm and warm. Get immediate medical attention.

Most important symptoms/effects, acute and delayed:. May cause severe eye, skin, respiratory tract irritation and burns. May cause temporary blindness and severe eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is required for all routes of exposure.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media: Use water spray, water fog, or foam to extinguish. Do not use dry chemicals, carbon dioxide or halogenated extinguishing agents.

Specific hazards arising from the chemical: This product is a strong oxidizer and may react with flammable or combustible materials to cause a fire or explosion. Irritating, corrosive and/or toxic gases or fumes will be released during a fire. Contact with oxidizable substances may cause extremely violent combustion. Drying of concentrated Hydrogen Peroxide on clothing or other combustible materials may cause fire or explosion. Sealed containers may rupture when heated.

Special protective equipment and precautions for fire-Fighters: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Water spray may be used to keep fire exposed containers cool.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Methods and materials for containment and cleaning up: Contain and recover liquid when possible. Neutralize with alkaline material (soda ash, lime,) then absorb with an inert material (e. g., vermiculite, dry sand, earth,) and place in a chemical waste container. Do not use combustible materials, such as saw dust. For large spills, Dilute with a large amount of water and hold in a pond or dyked area until the peroxide decomposes followed by discharge into a suitable treatment system. May be neutralized with sodium metabisulfite or sodium sulfite after diluting to 5 - 10% peroxide. Do not use combustible materials, such as saw dust. Do not flush to sewer! Do not let product enter drains. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. Handling and storage

Precautions for safe handling: Do not breathe mist or vapor. Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Prevent contact with eye, skin, and clothing. Always wear impervious gloves, chemical safety goggles and protective clothing when handling this material. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Keep containers closed when not in use. Take any precaution to avoid mixing with combustibles.

When diluting, always add acid to water- not water to acid. Adding water to acid generates heat and will cause dangerous boiling and splashing.

Conditions for safe storage, including any incompatibilities: Store in a cool (<35°C), dry, well-ventilated location out of direct sunlight. Do not store near combustible materials or incompatible materials. Keep in a closed but vented container to prevent evaporation (concentration) and contamination. Keep out of the reach of children.

8. Exposure controls/personal protection

Chemical Name	**Exposure Limits**
Water	None Established
Hydrogen Peroxide	1 ppm TWA ACGIH TLV 1 ppm TWA OSHA PEL

Appropriate Engineering Controls: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Respiratory Protection: In operations where the occupational exposure limits are exceeded, an approved respirator with applicable cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Eye Protection: Use chemical safety goggles and full face shield where splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

9. Physical and chemical properties

Appearance: Clear, colorless liquid
Odor: Slight acrid odor /pungent
Odor Threshold: Not determined
pH: 1.5
% Volatiles by volume @ 21C (70F): 100
Melting Point/Freezing Point: -52°C (-62°F)
Boiling Point / Boiling Range: 108°C (226°F)
Flash Point: Not applicable
Evaporation Rate (BuAC=1): < 1
Flammability (solid, gas): Not applicable
Upper / Lower Flammability or Explosive Limits: Not applicable
Vapor Pressure (mm Hg): 25 @ 30C (86F)
Vapor Density (Air=1): 1.17
Relative Density: 1.110 g/cm3
Solubility: Infinitely soluble
Partition Coefficient: n-octanol / water: No data available
Auto-ignition Temperature: Not applicable
Decomposition Temperature: No data available
Viscosity: Slightly more viscous than water

10. Stability and reactivity

Reactivity: Not available.

Chemical stability: Normally stable if uncontaminated, but slowly decomposes to release Oxygen. Unstable with heat, may result in dangerous pressures.

Possibility of hazardous reactions: A strong oxidizer, reacts violently upon contact with many organic substances, particularly textile and paper.

Conditions to avoid: Avoid heat and light. Keep in a closed but vented container to prevent evaporation (concentration) and contamination.

Incompatible materials: Heat, reducing agents, organic materials, dirt, alkalis, rust, and many metals. Spontaneous combustion may occur on standing in contact with readily flammable materials.

Hazardous decomposition products: Decomposes to Water and Oxygen with rapid heat release. Use vented containers. The solution can decompose violently upon heating. Material decomposes with the potential to produce a rupture of unvented closed containers.

11. Toxicological information

Potential Health Effects:

Inhalation: Inhalation of mists or vapors may cause severe irritation and burns of the nose, throat and upper respiratory tract. Higher concentrations can cause burns, pulmonary edema and death.

Skin Contact: Causes severe skin irritation and burns with redness, ulceration, pain, dermatitis, and scarring. Concentrated solutions cause deep ulcers and discolor skin.

Eye Contact: Vapors cause irritation. Splashes cause severe pain, eye damage, and permanent blindness.

Ingestion: Corrosive and irritating to the mouth, throat, and abdomen. Large doses may cause symptoms of abdominal pain, vomiting, and diarrhea as well as blistering or tissue destruction. Stomach distention (due to rapid liberation of Oxygen,) and risk of stomach perforation, convulsions, pulmonary edema, coma, possible cerebral edema (fluid on the brain,) and death are possible.

Chronic Exposure: Prolonged inhalation may cause lung damage. Repeated exposure may cause damage to the tissues of the mucous membranes, upper respiratory tract, eyes and skin.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders, eye disease, or cardiopulmonary diseases may be more susceptible to the effects of this substance.

Carcinogenicity: None of the components of this product are listed as a carcinogen or suspected carcinogen by OSHA, IARC, and NTP.

Reproductive Effects: Reproductive harm is not expected from this product.

Mutagenic Effects: Not expected to cause mutagenic activity.

Acute Toxicity:
Hydrogen Peroxide: Oral rat LD50: 1518 mg/kg (9.6%), 1193 mg/kg (35%), 693.7 mg/kg (70%), Inhalation rat LC50: >0.17 mg/L/4hr (no mortality) (49.3%), Skin rabbit LD50: >2000 mg/kg (35%), 9200 mg/kg (70%)

12. Ecological information

Exotoxicity:

Product	Species	Test Results
Hydrogen Peroxide	Fathead minnow	16.4 mg/L 96 hr LC50
	Daphnia pulex	2.4 mg/L 48 hr LC50
	Skeletonema costatum	1.38 mg/L 72 hr EC50
	Daphnia magna	0.63 mg/L 21 days NOEC

This product is expected to be harmful to the aquatic environment with long lasting effects. Releases to the environment should be avoided.

Persistence and Degradability: Expected to be readily biodegradable.

Bioaccumulative Potential: No bioaccumulation expected.

Mobility in Soil: No data available.

Other adverse effects: None known.

13. Disposal considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transportation Information

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
US DOT	UN2014	Hydrogen peroxide,	5.1(8)	II	Not applicable

		aqueous solutions			
IMDG	UN2014	Hydrogen peroxide, aqueous solutions	5.1(8)	II	Not applicable
IATA	UN2014	Hydrogen peroxide, aqueous solutions	5.1(8)	II	Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

Special Precautions for User: Not applicable

15. Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not on regulatory list.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories:

SARA 311/312
Refer to Section 2 for OSHA Hazard Classification.

SARA 302 Extremely hazardous substance
No

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

Other federal regulations:

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.
Safe Drinking Water Act (SDWA)
Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

DEA Exempt Chemical Mixtures Code Number

Not regulated.

Food and Drug Administration (FDA)

Not regulated.

US state regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US. Massachusetts RTK - Substance List

HYDROGEN PEROXIDE (CAS 7722-84-1)

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

HYDROGEN PEROXIDE (CAS 7722-84-1)

US. Rhode Island RTK

HYDROGEN PEROXIDE (CAS 7722-84-1)

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

International Inventories:

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes

Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other information

Date of Current Revision: 07/31/2024
Revision Summary: Updated all sections.
Date of Previous Revision: 12/04/2019

Disclaimer - The information in the SDS is based on the data available at the time. While believed to be accurate, Corco does not claim it to be all inclusive. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. It is not intended to provide product performance or applicability information, and no express or implied warranty of any kind is made with respect to the product, the underlying product data, or the information contained herein. We will not provide advice on such matters, or be responsible for any injury or damage resulting from the use of the product described herein.