

Hydrogen Peroxide 30%

SECTION 1. IDENTIFICATION

Product Identifier	Hydrogen Peroxide 30%
Other Means of Identification	Dihydrogen dioxide, Hydroperoxide
Product Code(s)	HY5220, HY5223
Product Family	Inorganic solution
Recommended Use	Laboratory and industrial use.
Restrictions on Use	None known.
Supplier Identifier	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
Emergency Phone No.	CANUTEC CANADA, 613-996-6666, 24 Hours
SDS No.	0843

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Oxidizing liquid - Category 2; Acute toxicity (Oral) - Category 4; Skin corrosion - Category 1A; Serious eye damage - Category 1; Specific target organ toxicity (single exposure) - Category 3

Label Elements



Signal Word:
Danger

Hazard Statement(s):

May intensify fire; oxidizer.

Harmful if swallowed.

May cause respiratory irritation.

Causes severe skin burns and eye damage.

Precautionary Statement(s):

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep or store away from clothing and other combustible materials.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Keep away from clothing and other combustible materials.

Response:

If SWALLOWED: Call a POISON CENTRE/doctor/ if you feel unwell.

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IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Water	7732-18-5	70	Dihydrogen oxide
Hydrogen peroxide solutions 20% to less than 35%	7722-84-1	30	Dihydrogen dioxide, Hydroperoxide

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Immediately call a Poison Centre or doctor.

Skin Contact

Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Immediately call a Poison Centre or doctor.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a Poison Centre or doctor. Specific treatment is required.

Ingestion

Immediately call a Poison Centre or doctor. Rinse mouth with water. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor.

First-aid Comments

Some of the first-aid procedures recommended here require advanced first-aid training. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: can cause severe irritation of the nose and throat. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest. Symptoms may develop hours after exposure and are made worse by physical effort.

Immediate Medical Attention and Special Treatment

Special Instructions

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

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Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Use flooding quantities of water spray or fog. Use water to keep non-leaking, fire-exposed containers cool.

Unsuitable Extinguishing Media

DO NOT use carbon dioxide, or other agents that smother the flames.

Specific Hazards Arising from the Product

Oxidizer. May cause or intensify fire. Heating increases the release of toxic vapour. Closed containers may rupture violently when heated releasing contents.

In a fire, the following hazardous materials may be generated: Oxygen.

Special Protective Equipment and Precautions for Fire-fighters

Use extreme caution. Evacuate area. Fight fire from a protected, explosion-resistant location or maximum distance possible. Approach fire from upwind to avoid hazardous vapours or gases. Oxidizer. Prevent contact with flammable and combustible materials. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Dike and recover contaminated water for appropriate disposal. Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Evacuate downwind locations. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Remove or isolate incompatible materials as well as other hazardous materials.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: flush spill area.

Large spills or leaks: contain spill with earth, sand, or absorbent material which does not react with spilled material. Remove or recover liquid using pumps or vacuum equipment. Store recovered product in suitable containers that are: tightly-covered. Flush spill area.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Only use where there is adequate ventilation. Avoid generating vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent accidental contact with incompatible chemicals. Prevent accidental contact with flammable and combustible materials. Keep containers tightly closed when not in use or empty.

Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated. Protect from sunlight. Separate from incompatible materials (see Section 10: Stability and Reactivity), clear of combustible and flammable materials (e.g. old rags, cardboard). Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Keep amount in storage to a minimum. Store in the original, labelled, shipping container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Hydrogen peroxide solutions 20% to less than 35%	1 ppm A3		1 ppm			

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Water	Not established		Not established			
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Water:

Exposure guidelines (both ACGIH and OSHA) for water not established.

Hydrogen peroxide solutions 20% to less than 35%:

A3 = Animal carcinogen.

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use backup controls (e.g. double mechanical pump seals) to prevent the release of this material due to equipment failure. Use stringent control measures such as process enclosure to prevent product release into the workplace. Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use only non-combustible, compatible materials for walls, floors, ventilation system, air cleaning devices, pallets, shelving. Use an automatic leak detection system.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: butyl rubber, natural rubber, neoprene rubber, nitrile rubber, polyethylene, Viton®, Tychem® BR/LV, Tychem® Responder, Tychem® TK.

The following materials should NOT be used: polyvinyl alcohol.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Colourless liquid.
Odour	Pungent
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	-25.7 °C (-14.3 °F) (melting); -25.7 °C (-14.3 °F) (freezing)
Initial Boiling Point/Range	106.2 °C (223.2 °F)
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Will not burn.
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	1.17 (calculated)
Relative Density (water = 1)	1.11 at 25 °C
Solubility	Soluble in all proportions in water; Soluble in all proportions in
Partition Coefficient, n-Octanol/Water (Log Kow)	-0.70 - -1.57 (estimated)
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)
Other Information	
Physical State	Liquid
Molecular Weight	34.02

SECTION 10. STABILITY AND REACTIVITY

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Reactivity

Oxidizer. May cause or intensify fire.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None known.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Alkaline conditions (high pH).

Incompatible Materials

Strong bases (e.g. sodium hydroxide), strong acids (e.g. hydrochloric acid), metals (e.g. aluminum).

Hazardous Decomposition Products

Oxygen (a strong oxidizer).

SECTION 11. TOXICOLOGICAL INFORMATION**Likely Routes of Exposure**

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Hydrogen peroxide solutions 20% to less than 35%	2000 ppm (rat) (4-hour exposure)	1232 mg/kg (rat)	> 2000 mg/kg (rabbit)
Water	Not available	> 89840 mg/kg (rat)	Not available

Skin Corrosion/Irritation

There is limited evidence of very mild irritation.

Serious Eye Damage/Irritation

There is limited evidence of serious eye irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure**Inhalation**

May cause nose and throat irritation.

Ingestion

Harmful.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Hydrogen peroxide solutions 20% to less than 35%	Group 3	A3	Not Listed	
Water	Not Listed	Not Listed	Not Listed	Not Listed

Water:

No information was located.

Hydrogen peroxide solutions 20% to less than 35%:

IARC: Group 3 – Not classifiable as to its carcinogenicity to humans.

ACGIH®: A3 – Confirmed animal carcinogen.

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Reproductive Toxicity

Development of Offspring

Not known to harm the unborn child.

Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

Conclusions cannot be drawn from the limited studies available.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN2014	Hydrogen Peroxide, Aqueous Solution with not less than 20 percent but not more than 60 percent hydrogen peroxide (stabilized as necessary)	5.1, 8	II
US DOT	UN2014	Hydrogen Peroxide, Aqueous Solution with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary)	5.1, 8	II

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Alphachem Limited

Phone No. (905)-821-2995

Date of Preparation December 21, 2016

Date of Last Revision December 21, 2016

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References

CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

Disclaimer

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