

Safety Data Sheet

according to WHMIS 2015

Effective date: 16/06/22

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Oxygenated Bleach B

SECTION 1: Identification

Product name: Oxygenated Bleach B

Other means of identification: 29% Hydrogen peroxide standard grade

Recommended use and restrictions on use: Industrial bleaching, processing, pollution abatement, aseptic packaging and other food related applications, water treatment.




Supplier Details:

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Emergency telephone number: Call CANUTEC's 24-hr Number 613-996-6666

SECTION 2: Hazard Identification

Classification of the substance or mixture:

 Corrosion	<ul style="list-style-type: none">• Skin corrosion/irritation - Skin corrosion (Category 1B)• Serious eye damage/eye irritation - Serious eye damage (Category 1)
 Exclamation Mark	<ul style="list-style-type: none">• Acute toxicity – Oral (Category 4)• Acute toxicity – Inhalation (Category 4)• Specific target organ toxicity – Single exposure (Category 3)
 Flame over Circle	<ul style="list-style-type: none">• Oxidizing liquids (Category 2)

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Signal word: Danger

Hazard statements:

Harmful if swallowed.

Harmful if inhaled.

May intensify fire; oxidizer.

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause respiratory irritation.

Precautionary statements:

Use only outdoors or in a well-ventilated area. Store locked up. Store away from other materials. Store in a well-ventilated place. Keep container tightly closed.

Keep away from heat, sparks, open flames, and hot surfaces. — No smoking. Keep/Store away from clothing, incompatible and combustible materials.

In case of fire: Use water only for extinction.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Wear protective gloves, protective clothing, eye protection, and face protection. Wear fire, flame resistant, retardant clothing.

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

Do not breathe mist, vapors or spray.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin.

IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Other hazards which do not result in classification:

SECTION 3: Composition/Information on Ingredients

Chemical Name	CAS No.	Concentration (% wt/wt)
Hydrogen peroxide	7722-84-1	29

SECTION 4: First Aid Measures

Description of first aid measures:

After inhalation: If symptoms are experienced, remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.

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After skin contact: Remove contaminated clothing. Rinse skin with lukewarm, gently flowing water/shower for 30 minute. Seek immediate medical attention. Store the contaminated clothing under running water and wash before re-use or discard.

After eye contact: Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention.

After swallowing: Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth. DO NOT induce vomiting. Seek immediate medical attention.

Indication of any immediate medical attention and special treatment needed: Notes to physician: Direct contact with the eye is likely to cause corneal damage especially if not washed immediately. Careful ophthalmologic evaluation is recommended and possibility of local corticosteroid therapy should be considered. Because of the likelihood of corrosive effects on the gastrointestinal tract after ingestion, and the unlikelihood of systemic effects, attempts at evacuating the stomach via emesis induction or gastric lavage should be avoided. There is a remote possibility, however, that a nasogastric tube may be required for the reduction of severe distension due to gas formation.

SECTION 5: Firefighting Measures

Extinguishing media

Suitable extinguishing agents: Hydrogen peroxide does not burn. Use extinguishing media suitable for the surrounding fire. Use large quantities of water as fog to fight fires in which this material is involved.

For safety reasons, unsuitable extinguishing agents: Carbon dioxide or other extinguishing agents that smother flames are not effective in fires involving oxidizers.

Special hazards arising from the substance or mixture: Hydrogen peroxide decomposes to molecular oxygen, which can accelerate the burning of flammable materials or cause spontaneous combustion. Closed containers may rupture violently due to rapid decomposition, if exposed to fire or excessive heat for a sufficient period of time, or if contaminated with certain metals or dirt. Large amounts of oxygen-rich atmosphere. No part of a container should be subjected to a temperature higher than 49°C.

Advice for firefighters:

Protective equipment: Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Additional information (precautions): Not Available

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SECTION 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.

Methods and material for containment and cleaning up: SMALL SPILLS: Flush area with water. LARGE SPILLS: Dike with earth, sand or inert noncombustible sorbent material to contain spill. Remove liquid with compatible pumps or vacuum equipment. Place in suitable, covered, labelled, vented containers. Flush area with excess water. Keep materials which can burn away from spilled material. Contaminated absorbent material may pose the same hazards as the spilled product. Combustible materials that have come into contact with spilled material should be submerged or rinsed off with water to remove hydrogen peroxide.

SECTION 7: Handling and Storage

Precautions for safe handling: This material is a MODERATE OXIDIZER and is CORROSIVE to the eyes. Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Avoid generating vapors or mists. Prevent the release of vapors or mists into the air. Eliminate all ignition sources (sparks, smoking, flames, hot surfaces). Keep away from heat.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well-ventilated place. Keep container tightly closed, vented, out of direct sunlight, and away from incompatible materials. Do NOT store on wooden pallets: use plastic pallets. Storage facilities should be made of fire resistant materials. Construct walls, floors, shelving and fittings in storage areas from non-combustible materials that resist attack from hydrogen peroxide. Iron and other heavy metals, copper alloys, caustic, reducing agents, dirt, organics, cyanides, and combustibles such as wood, paper, oils, etc.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters:

Component	Regulation	Type of Listing	Value
Hydrogen peroxide	ACGIH	TWA	1 ppm
	OSHA	PEL	1 ppm

Appropriate Engineering controls: Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems. Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

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Respiratory protection: If concentrations in excess of 10 ppm are expected, use NIOSH/DHHS approved self-contained breathing apparatus (SCBA), or other approved atmospheric-supplied respirator (ASR) equipment (e.g., a full-face airline respirator). DO NOT use any form of air-purifying respirator (APR) or filtering facepiece (AKA dust mask), especially those containing oxidizable sorbents such as activated carbon.

Protection of skin: Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Body suit, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

Eye protection: Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

SECTION 9: Physical and Chemical Properties

Appearance:	Clear colorless liquid	Vapor pressure:	Not available
Odor:	Odorless	Vapor density:	1.17
Odor threshold:	Not applicable	Relative density/Specific gravity:	1.11 (30%)
pH - value:	< 2	Solubility:	Completely miscible
Melting/Freezing point:	- 25.7 °C (30%)	Partition coefficient (n-octanol / water):	Log Pow = - 0.70-1.33; - 1.57 (estimated)
Boiling point/Boiling range:	106.2 °C (30%)	Auto/Self-ignition temperature:	Not applicable
Flash point:	Not applicable	Decomposition temperature:	150 – 152 °C (pure hydrogen peroxide)
Evaporation rate:	Not available	Viscosity:	Not available
Flammability:	Non-flammable	Molecular formula:	H ₂ O ₂
Flammable limit lower:	Not applicable	Molecular weight:	34.02
Flammable limit upper:	Not applicable		
Explosive Properties: Product is noncombustible. On decomposition, H ₂ O ₂ releases oxygen which may intensify fire. Can cause overpressure if confined.			

SECTION 10: Stability and Reactivity

Reactivity: The National Fire Protection Association (NFPA) lists hydrogen peroxide solutions (greater than 27.5% up to 52%) as a Class 2 Oxidizer. Class 2 Oxidizers cause a moderate increase in the burning rate of combustible materials with which they come into contact.

Chemical stability: Solution which are completely free of contamination are relatively stable. Can decompose in sunlight. Readily liberates oxygen, water and heat.

Possible hazardous reactions: None reported.

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Conditions to avoid: Heat, open flames, contamination, depletion of stabilizers, pH greater than 4.5.

Incompatible materials: Combustible materials, strong bases, nitric acid, sulfuric acid, organic compounds, metals, metal oxides, metal salts, iodates, reducing agents, potassium permanganate.

Hazardous decomposition products: Molecular oxygen.

SECTION 11: Toxicological Information

Component	Acute Toxicity		
	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Hydrogen peroxide (30%)	250 mg/kg (rat)	2300 mg/kg (rabbit)	377 mg/m ³ (mouse, 4hr)

Skin Corrosion/Irritation: Corrosive. Capable of producing serious burns, blisters, ulcers and permanent scarring.

Serious Eye Damage/Irritation: Can cause serious eye damage. Capable of producing severe eye burns and permanent injury.

Ingestion: Harmful if ingested. Symptoms include sharp pains in the abdomen, foaming at the mouth, vomiting, temporary unconsciousness and fever. Significant neurological impairment has been described.

Inhalation: Inhalation of mist or vapors may be severely irritating to nose, throat, and lungs.

Respiratory or Skin Sensitization: Hydrogen peroxide is not known to be an occupational respiratory or skin sensitizer.

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

Germ Cell Mutagenicity: The information located is insufficient to conclude that hydrogen peroxide is a mutagen.

Reproductive Toxicity: Hydrogen peroxide is not known to cause developmental toxicity. Hydrogen peroxide is not known to cause reproductive toxicity.

STOT-Single Exposure: Causes respiratory tract irritation.

STOT-Repeated Exposure: Not Available

Aspiration Hazard: Not Available

Synergistic Materials: Increased airways resistance was observed in volunteers exposed to hydrogen peroxide

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and sulfur dioxide aerosols at the same time. An animal study has shown that concurrent inhalation exposure to fine particulates and hydrogen peroxide can increase the toxicity of both to the lungs. Exposure to hydrogen peroxide also increased the toxicity of ozone in animals.

SECTION 12: Ecological Information

Ecotoxicity:

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Hydrogen peroxide	EC ₅₀ = 0.27mg/L (Blue-green algae, 3hr)	LC ₅₀ = 0.055mg/L (Ictalurus unctatus, 24hr)	EC ₅₀ = 2.32mg/L (Daphnia magna, 48hr)

Persistence and degradability: Readily biodegradable

Bioaccumulative potential: None. Hydrogen peroxide quickly decomposes to oxygen and water.

Mobility in soil: Not Available

Other adverse effects: Hydrogen peroxide in the aquatic environment is subject to various reduction or oxidation processes and decomposes into water and oxygen. H₂O₂ half-life in freshwater ranged from 8 hours to 20 days, in air from 10-20 hours and in soils from minutes to hours depending upon microbiological activity and metal contaminants.

SECTION 13: Disposal Considerations

Waste disposal recommendations: Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

SECTION 14: Transport Information

UN Number: UN 2014

UN proper shipping name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Transport hazard class(es): 5.1 (8)

Packing group: II

Limited Quantity Index: 1L

Environmental hazard: Not listed as marine pollutant under Canadian TDG Regulation

Transport in bulk, if applicable: Not available

Special precautions: Not available

Additional Information:

TDG: Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

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SECTION 15: Regulatory Information

The product listed on this SDS has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations. This SDS contains all information required by those regulations.

SECTION 16: Other Information

YXELABS Incorporated provides the information contained herein in good faith but makes no representation as to its completeness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.

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Abbreviations and acronyms:

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CAS: Chemical Abstracts Service

EPA: Environmental Protection Agency

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IARC: International Agency for Research on Cancer

MSHA: Mine Safety and Health Administration

NIOSH: National Institute for Occupational Safety and Health

DHHS: Department of Health and Human Services

NPRI: National Pollutant Release Inventory

OSHA: Occupational Health and Safety Administration

PEL: Permissible exposure limit

TDG: Transportation of Dangerous Goods

TWA: Time-weighted average

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