

SAFETY DATA SHEET (SDS)

according to Hazardous Products Regulations (SOR/2015-17)

Hydrogen peroxide solution, 30-32% w/w

Revision date: 09/14/2020 (mm/dd/yyyy)

Revision number: 5.0

SECTION 1 Identification

1.1. Product identifier

Product name:	IQ Hydrogen peroxide solution BASELINE Hydrogen peroxide solution	Product number(s):	S011001 S021001
EU Index number:	008-003-00-9		
Synonyms:	Dihydrogen dioxide; Hydrogen dioxide; Hydroperoxide		
Chemical names:	DE Wasserstoffperoxid in Lösung; ES Peróxido de hidrógeno en disolución (Agua oxigenada); FR Peroxyde d'hydrogène en solution (Eau oxygénée); IT Perossido di idrogeno soluzione (Acqua ossigenata); NL Waterstofperoxide in oplossing		

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For laboratory use only. Not for drug, food, or household use.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

SEASTAR CHEMICALS ULC
2061 Henry Avenue West, Sidney, BC V8L 5Z6 CANADA
1-250-655-5880

Email: SCI-QA&RegulatoryAffairs@seastarchemicals.com

1.4. Emergency telephone number

CAN (CANUTEC): 1-613-996-6666 (24-hour)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification in accordance 29 CFR 1910 (OSHA HCS) / WHMIS HPR / Regulation (EC) No 1272/2008

Serious eye damage, category 1

Acute toxicity, oral, category 4

Acute toxicity, inhalation, category 4

2.2. Label elements

Pictograms:



Signal word: Danger

Hazard statements: **H318:** Causes serious eye damage.
H302 + H332: Harmful if swallowed or if inhaled.

Precautionary statements: **P261:** Avoid breathing fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.

2.3. Other hazards

For the full text of the H-Statement(s) and P-Statement(s) mentioned in this Section, see Section 16.

SAFETY DATA SHEET (SDS)

according to Hazardous Products Regulations (SOR/2015-17)

Hydrogen peroxide solution, 30-32% w/w

Revision date: 09/14/2020 (mm/dd/yyyy)

Revision number: 5.0

SECTION 3 Composition/Information on ingredients

3.2. Mixtures

Chemical name	Chemical formula	Weight percent ¹	CAS №	EINECS №
Hydrogen peroxide	H ₂ O ₂	30 - 32% w/w	7722-84-1	231-765-0
Water	H ₂ O	Balance	7732-18-5	231-791-2

¹Weight Percent or percentage by mass (%): 100x (mass solute/mass total solution after mixing). Expressed as % w/w

SECTION 4 First-aid measures

4.1. Description of first aid measures

Inhalation: If symptoms are experienced, remove source of exposure or move person to fresh air and keep comfortable for breathing. Call a Poison Centre or doctor if you feel unwell or are concerned.

Skin: Take off immediately contaminated clothing, shoes, and leather goods. Rinse skin with lukewarm, gently flowing water/shower for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell, get medical advice/attention. Store contaminated clothing under water and wash before re-use or discard.

Eye: Rinse eye(s) cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelid(s) open. Remove contact lenses if present and easy to do. Continue rinsing for up to 30 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a Poison Centre or doctor.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a Poison Centre or doctor.

First aid comments: Consult a doctor and/or the nearest Poison Control Centre for all exposures except minor instances of inhalation or skin contact. All first aid procedures should be periodically reviewed by a doctor familiar with the material and its condition of use in the workplace.

Attempts at evacuating the stomach via emesis induction or gastric lavage should be avoided. In the event of severe distension of the stomach or esophagus due to gas formation, insertion of a gastric tube may be required.

4.2. Most important symptoms and effects, both acute and delayed

The vapour or mists from solutions are corrosive to the nose, throat, and respiratory tract depending on the airborne concentration and the duration of exposure. In very severe cases, bronchitis or a potentially life-threatening accumulation of fluid in the lungs (pulmonary edema) may occur. The symptoms of pulmonary edema include coughing, chest pain, and shortness of breath, and can be delayed for up to 24 or 48 hours after exposure. These symptoms are aggravated by physical exertion.

4.3. Indication of any immediate medical attention and special treatment needed

Consult a doctor and/or the nearest Poison Control Centre for all exposures except minor instances of inhalation or skin contact.

SECTION 5 Fire-fighting measures

5.1. Extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

Hydrogen peroxide solutions of 20% w/w to less than 35% w/w do not burn but are moderate to strong oxidizing agents. Concentrations of 27.5% w/w and above can cause combustible materials such as wood, paper, oils, and grease to burst into flames and will support, accelerate, and intensify the burning of combustible materials in a fire. Some substances that do not normally burn in air will ignite or explode upon contact with hydrogen peroxide. 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 gas may be released to form an oxygen-rich atmosphere. No part of a container should be subjected to a temperature higher than 49 °C (120 °F).

Hazardous combustion products: Decomposes to molecular oxygen, which can accelerate the burning of flammable materials or cause spontaneous combustion.

SAFETY DATA SHEET (SDS)

according to Hazardous Products Regulations (SOR/2015-17)

Hydrogen peroxide solution, 30-32% w/w

Revision date: 09/14/2020 (mm/dd/yyyy)

Revision number: 5.0

5.3. Advice for firefighters

Firefighters may enter the area if positive pressure self-contained breathing apparatus (NIOSH approved or equivalent) and full Bunker Gear is worn.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Wear adequate personal protective equipment. Ventilate area. Eliminate all ignition sources. Remove all flammable and combustible materials.

6.2. Environmental precautions

Notify government occupational health and safety and environmental authorities.

6.3. Methods and material for containment and cleaning up

Do not touch spilled material. Stop or reduce leak if safe to do so. Prevent material from entering sewers, waterways, or confined spaces. Keep materials which can burn away from spilled material.

SMALL SPILLS: Flush area with water.

LARGE SPILLS: Dike with earth, sand, or inert absorbent 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 that can burn away from spilled material. Contaminated absorbent material may pose the same hazards as the spilled product.

6.4. Reference to other sections

See Section 7 for information on handling. See Section 8 for information on personal protection. See Section 13 for information on disposal.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Do not use this product once the expiration date is reached. The expiration date defines both the end of the product shelf life and its certification. The expiration date is conditional; products must be stored and transported according to SEASTAR™'s Product Integrity Guidelines.

Plastic bottles should be inspected regularly, specifically HDPE bottles, for any evidence of change to the plastic bottle's ability to deform. The ability to deform is defined by its ductility/plasticity/malleability/embrittlement or hardening/compressibility. If any change is noticed, carefully and safely transfer or dispose of the product according to your safe handling practices and procedures. Any product disposal must be done according to applicable regulations governing the disposal of the hazardous product.

This material is a MODERATE OXIDIZER and is CORROSIVE to the eyes. Before handling, it is very important that engineering controls are operating, and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Maintenance and emergency personnel should be advised of potential hazards. Wear appropriate personal protective equipment, if necessary, to prevent eye contact.

Eliminate all ignition sources (sparks, smoking, flames, hot surfaces). Keep away from heat. Never allow contact with materials which can burn. Post "NO SMOKING" sign in area. Consider using closed handling systems for processes involving this material. If a closed handling system is not possible, use hydrogen peroxide in the smallest possible amounts, in an area separate from the storage area. Avoid generating vapours or mists. Prevent the release of vapours or mists into the air. Immediately report leaks, spills or failures of the engineering controls.

Do not use with incompatible materials such as organic compounds (e.g. alcohols, ethers). See Section 10 for more information. Do not return unused or contaminated material to the original container. Prevent contamination of peroxide solutions by any source including dust, metals and organic materials. Do not allow water to evaporate from the solution. Do not perform any welding, cutting, soldering, drilling or other hot work on an empty vessel, container or piping until all material has been cleared. Maintain handling equipment. Prevent leaks of grease or other lubricants from equipment where this chemical is used. Do not allow contact with materials such as cleaning solvents, paints or thinners.

Inspect containers for damage or leaks before handling. Cautiously, dispense into sturdy containers made of compatible materials.

SAFETY DATA SHEET (SDS)

according to Hazardous Products Regulations (SOR/2015-17)

Hydrogen peroxide solution, 30-32% w/w

Revision date: 09/14/2020 (mm/dd/yyyy)

Revision number: 5.0

Use corrosion-resistant transfer equipment when dispensing. Whenever possible, use self-closing, portable containers for dispensing small amounts of this material. Add to cold water slowly, in small amounts and stir frequently to avoid excessive heat generation. Never transfer by pressurizing the original shipping container with air or inert gas. Secondary protective containers must be used when this material is being carried. Avoid damaging containers. Keep containers closed when not in use. Always assume that empty containers contain hazardous residues. Never reuse empty containers, even if they appear to be clean. Have suitable emergency equipment for fires, spills, and leaks readily available. Practice good housekeeping. Comply with applicable regulations.

7.2. Conditions for safe storage, including any incompatibilities

Store below 35 °C. Store in a cool, well-ventilated area, out of direct sunlight, away from heat and ignition sources and away from combustible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Keep storage area separate from work areas. Store away from elevators, building and room exits or main aisles leading to exits. Post warning signs. Inspect periodically for damage or leaks.

Ground floor storage facilities are usually recommended. For large scale operations, consider the installation of leak and fire detection equipment along with a suitable, automatic fire suppression system. When storing large quantities, store in an isolated, fireproof building, if possible. Keep quantities stored as small as possible. 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. Avoid bulk storage indoors.

Store away from incompatible materials, such as organic compounds. See Section 10 for more information. Inspect all incoming containers to make sure they are properly labelled and not damaged. Keep only in original container. Protect from damage.

Have appropriate fire extinguishers and spill clean-up equipment in storage area. Contain spills or leaks by storing in trays made from compatible materials. Keep absorbents for leaks readily available. Provide raised sills or ramps at doorways or create a trench which drains to a safe location. Storage tanks should be above ground and surrounded with a dike capable of holding entire contents. Store oxidizing materials according to the occupational health and safety regulations and fire and building codes with will describe the kind of storage area and the type of containers for a specified amount of the material.

7.3. Specific end use(s)

No information available.

SECTION 8 Exposure controls/Personal protection

8.1. Control parameters

Chemical name	Limit value type	Exposure limit value	Source
Hydrogen peroxide	TLV-TWA	1 ppm	USA ACGIH
	PEL-TWA, REL-TWA	1 ppm (1.4 mg/m ³)	USA OSHA, USA NIOSH
	IDLH	75 ppm	USA NIOSH
Water	None listed.	None listed.	Not applicable

8.2. Exposure controls

NOTE: Exposure to this material can be controlled in many ways. The measures appropriate for a worksite depend on how this material is used and on the extent of exposure. This general information can be used to help develop specific control measures. Ensure that control systems are properly designed and maintained. Comply with occupational, environmental, fire, and other applicable regulations.

Engineering Controls: Engineering methods to control hazardous conditions are preferred. Methods include mechanical ventilation (dilution and local exhaust), process or personnel enclosure, control of process conditions and process modification (e.g. substitution of a less hazardous material).

Because of the potential hazard associated with this substance, control measures such as enclosure or isolation should be considered for large scale operations. Supply sufficient replacement air to make up for air removed by exhaust systems. Do not use organic or combustible materials such as wood in the construction of ventilation or control systems.

Personal Protective Equipment: If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection. Have appropriate equipment available for use in emergencies such as spills or fire.

SAFETY DATA SHEET (SDS)

according to Hazardous Products Regulations (SOR/2015-17)

Hydrogen peroxide solution, 30-32% w/w

Revision date: 09/14/2020 (mm/dd/yyyy)

Revision number: 5.0

If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance, and inspection.

Eye / Face protection: Wear a face shield and/or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Have an eye-wash fountain available in the immediate work area.

Skin protection: Wear impervious gloves, coveralls, boots, and/or other chemical protective clothing. Choose body protection according to the amount and concentration of the substance at the workplace.

Resistance of Materials for Protective Clothing: Guidelines for hydrogen peroxide 30 - 70% w/w:

RECOMMENDED (resistance to breakthrough longer than 8 hours): Butyl rubber; Natural rubber; Neoprene rubber; Nitrile rubber; Viton®; Viton®/Butyl rubber; Saranex®; ChemMAX® 3; Frontline® 500; Microchem® 4000, Tychem® CPF3, F, Thermopro, BR/LV, Responder® CSM, TK, and Reflector; Zytron® 300 and 500.

RECOMMENDED (resistance to breakthrough longer than 4 hours): Polyvinyl chloride (PVC); Silver Shield® - PE/EVAL/PE.

NOT RECOMMENDED for use (resistance to breakthrough less than 1 hour and/or poor degradation rating): Polyvinyl alcohol (PVAL).

Inhalation / Ventilation: NIOSH RECOMMENDATIONS FOR HYDROGEN PEROXIDE CONCENTRATIONS IN AIR:

UP TO 50 ppm: Any self-contained breathing apparatus with a full facepiece; OR Any supplied-air respirator with a full facepiece.

EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS: Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode; OR Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus.

ESCAPE: Any air-purifying, full facepiece respirator (gas mask) with a chin-style, front- or back-mounted canister providing protection against hydrogen peroxide; OR Any appropriate escape-type, self-contained breathing apparatus.

Personal Hygiene: Remove contaminated clothing promptly. Drying of concentrated material on clothing may cause fire. Immerse contaminated clothing in water and keep thoroughly wet until discarded or laundered. Inform laundry personnel of contaminant's hazards. Do not eat, drink, or smoke in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	Vapour pressure: (partial pressure at 30 °C)	35% w/w: 0.48 hPa
Colour:	Clear, colourless		
Molecular weight:	H ₂ O ₂ : 34.01 g/mol	Vapour density:	1.17 (air = 1) (calc.)
	H ₂ O: 18.02 g/mol	Density: (at 18 °C)	30% w/w: 1.1122 g/mL
Odour:	Sharp, irritating odour	Solubility:	Soluble in all proportions in water. Soluble in all proportions in many polar solvents; soluble in diethyl ether.
Odour threshold:	No information available.		
pH:	3.3 (30% solution)		
Melting/freezing point:	30% w/w: -25.7 °C (-14.3 °F)	Partition coefficient:	Log P(oct) = -0.70 to -1.33; -1.57 (est.)
Boiling point:	30% w/w: 106.2 °C (223.2 °F)		
Flash point:	Not combustible (does not burn).		
Evaporation rate:	No information available.	Auto-ignition temperature:	Not applicable
Flammability:	Not applicable		
Lower flammable (explosive) limit (LFL/LEL):	Not applicable	Decomposition temperature:	150 - 152 °C (302 - 305.6 °F) (pure hydrogen peroxide)
Upper flammable (explosive) limit (UFL/UEL):	Not applicable	Viscosity:	No information available.

SAFETY DATA SHEET (SDS)

according to Hazardous Products Regulations (SOR/2015-17)

Hydrogen peroxide solution, 30-32% w/w

Revision date: 09/14/2020 (mm/dd/yyyy)

Revision number: 5.0

9.2. Other information

No information available.

SECTION 10 Stability and reactivity

10.1. Reactivity

The National Fire Protection Association (NFPA) lists hydrogen peroxide solutions (greater than 8% w/w up to 27.5% w/w) as a Class 1 oxidizer and hydrogen peroxide solutions (greater than 27.5% w/w up to 52% w/w) as a Class 2 oxidizer. Class 1 Oxidizers do not moderately increase the burning rate of combustible materials with which they come into contact. Class 2 Oxidizers cause a moderate increase in the burning rate of combustible materials with which they come into contact.

10.2. Chemical stability

Solutions which are completely free of contamination are relatively stable. Stability depends upon many factors including temperature, pH, and the presence of impurities. Alkaline solutions are less stable than acidic ones (the optimum pH is 3.5 - 4.5). Can decompose in sunlight. Readily liberates oxygen, water, and heat.

10.3. Possibility of hazardous reactions

See Section 10.5 for incompatible materials.

10.4. Conditions to avoid

Heat, open flames, ignition sources, contamination, pH >4.5.

10.5. Incompatible materials

NOTE: Chemical reactions that could result in a hazardous situation (e.g. generation of flammable or toxic chemicals, fire, or detonation) are listed here. Many of these reactions can be done safely if specific control measures (e.g. cooling of the reaction) are in place. Although not intended to be complete, an overview of important reactions involving common chemicals is provided to assist in the development of safe work practices.

Hydrogen peroxide solutions (30% w/w or greater) are strong oxidizing agents capable of reacting explosively with many substances. Some organic compounds form unstable peroxides.

COMBUSTIBLE MATERIALS (e.g. wood, paper, textiles, oil, grease) - may cause fire or explosion upon contact.

STRONG BASES (e.g. potassium hydroxide or sodium hydroxide) - can explode violently.

NITRIC ACID (more than 50% w/w) or SULFURIC ACID - mixtures with 35% w/w and above hydrogen peroxide can explode violently.

ORGANIC COMPOUNDS (e.g. carboxylic acids and anhydrides, nitrogen-containing bases, aldehydes, ketones, ethers, alcohols, charcoal, organic dust) – spontaneous combustion, violent decomposition and/or explosion may occur.

METALS (powdered or metal surfaces), METAL OXIDES, METAL SULFIDES METAL SALTS, or IODATES - may cause violent decomposition.

REDUCING AGENTS (e.g. metal hydrides) - may react violently.

POTASSIUM PERMANGANATE - can explode when in contact with very concentrated hydrogen peroxide.

10.6. Hazardous decomposition products

Molecular oxygen.

10.7. Corrosivity to metals:

Hydrogen peroxide solutions are corrosive (corrosion rate greater than 1.27 mm/year) to carbon steel alloys 1010 and 1020 at any concentration and any temperature. Hydrogen peroxide solutions (20% w/w to less than 35% w/w) are corrosive to cast iron (unspecified), gray cast iron, ductile cast iron (any concentration), nickel base alloy, Hastelloy B, copper and alloys, 70 - 30 copper-nickel, some brasses (e.g. unspecified, cartridge, naval and leaded red brass), some bronzes (e.g. unspecified, aluminum, naval and silicon bronze), lead and titanium alloys at room temperature (20 - 25 °C, 68 - 77 °F). Hydrogen peroxide solutions (20% w/w to less than 35% w/w) are not corrosive (corrosion rate less than 0.5 mm/year) to stainless steel (e.g. types 303, 304, 316, 400 series and Carpenter 20Cb-3), aluminum metal (99.5% w/w), certain aluminum alloys (1060, 3003, 5052, 6063 and aluminum-magnesium alloys), nickel-base alloys, Monel, Hastelloy C, C-22 and C-276 and Inconel 600, tantalum and zirconium. Both stainless steel and aluminum surfaces must be passivated (formation of a protective film by chemical treatment) before use.

SAFETY DATA SHEET (SDS)

according to Hazardous Products Regulations (SOR/2015-17)

Hydrogen peroxide solution, 30-32% w/w

Revision date: 09/14/2020 (mm/dd/yyyy)

Revision number: 5.0

10.8. Corrosivity to non-metals:

Hydrogen peroxide solutions (30 - 35% w/w) attack plastics, such as nylon and acrylonitrile-butadiene-styrene (ABS); elastomers, such as nitrile rubber (NBR; nitrile Buna N), neoprene (chloroprene), ethylene propylene terpolymer (EPT), styrene-butadiene (SBR; Buna S), butyl rubber (isobutylene-isoprene; IIR), natural rubber, synthetic rubber, hard rubber, soft rubber and nylon 11 and 12; and coatings, such as epoxy (coal tar, chemical resistant, polyamide and general purpose) at room temperature. Hydrogen peroxide solutions (20 - 35% w/w) do not attack plastics, such as Teflon and other fluorocarbons like ethylene chlorotrifluoroethylene (ECTFE; Halar), ethylene tetrafluoroethylene (ETFE; Tefzel) and polyvinylidene fluoride (Kynar), polyvinylidene chloride (Saran), chlorinated polyvinyl chloride (CPVC), polyvinyl chloride (PVC), polypropylene, chlorinated polyether (Penton), polyurethane (riged), polybutylene and polyethylene terephthalate, polyether ether ketone (PEEK), high density polyethylene (HDPE) and ultrahigh molecular weight polyethylene (HMWPE), crosslinked polyethylene (XPE), polyphenylene oxide (Noryl), polycarbonate, thermoset polyester (bisphenol A-fumarate, terephthalate and general purpose), thermoset epoxy, ethylene vinyl acetate (EVA) and vinyl ester; and elastomers, such as Viton A and other fluorocarbons, like Teflon, Chemraz and Kalrez, ethylene propylene diene (EPDM; Nordel), polyurethane, chlorosulfonated polyethylene (Hypalon; CSM), fluorosilicone, low density polyethylene (LDPE) and silicone rubbers; and polyester coatings at room temperature.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

RETECS#: MX0899000 (Hydrogen peroxide, 30% w/w), MX0899500 (Hydrogen peroxide, 20% w/w to 60% w/w)

Acute toxicity:

Oral LD50: 1,193 mg/kg (rat, male); 1,270 mg/kg (rat, female)

Dermal LD50: No information available.

Inhalation LC50: No information available.

Other information: No information available.

Exposure routes:

Inhalation: Hydrogen peroxide solutions can form a vapour at normal temperatures. The airborne concentrations reached depend on the concentration of the solution and how the product is used. The vapour or mists from solutions are corrosive to the nose, throat, and respiratory tract depending on the airborne concentration and the duration of exposure. In very severe cases, bronchitis or a potentially life-threatening accumulation of fluid in the lungs (pulmonary edema) may occur. The symptoms of pulmonary edema include coughing, chest pain, and shortness of breath, and can be delayed for up to 24 or 48 hours after exposure. These symptoms are aggravated by physical exertion. Long-term lung damage may result from a severe short-term exposure.

Skin: Hydrogen peroxide solutions of 20% w/w to less than 35% w/w are very mild skin irritants. Prolonged contact can cause moderate to severe irritation. Whitening or bleaching of the skin has been observed in humans following contact with dilute solutions.

Eye: Hydrogen peroxide solutions of 20% w/w to less than 35% w/w can cause serious eye damage and are capable of producing severe eye burns and permanent injury, including blindness, depending on the concentration of the solution and duration of contact.

Ingestion: Ingestion of hydrogen peroxide solutions greater than 10% w/w may have harmful effects, with symptoms such as sharp pains in the abdomen, foaming at the mouth, vomiting, temporary unconsciousness and fever. Significant neurological impairment can also occur. Hydrogen peroxide reacts in the stomach releasing large amounts of oxygen, which may result in the entry of gas into the circulatory system (gas embolism). Concentrated solutions (greater than 35% w/w) irritate the gastrointestinal tract and may cause corrosive injury and death.

Germ cell mutagenicity: The information available is insufficient to conclude that hydrogen peroxide is a mutagen.

Carcinogenicity: Hydrogen peroxide is not known to be a carcinogen.

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

Additional information: Long-term exposure to hydrogen peroxide solutions may cause chronic respiratory irritation. Hydrogen peroxide is not known to be an occupational respiratory or skin sensitizer. To the best of our knowledge, the chronic toxicity of this substance has not been fully investigated.

SAFETY DATA SHEET (SDS)

according to Hazardous Products Regulations (SOR/2015-17)

Hydrogen peroxide solution, 30-32% w/w

Revision date: 09/14/2020 (mm/dd/yyyy)

Revision number: 5.0

SECTION 12 Ecological information

12.1. Toxicity

Carp: LC50 = 42 mg/L/48H; Channel catfish: LC50 = 37.4 mg/L/96H (fresh water); Fathead minnow: LC50 = 16.4 mg/L/96H (fresh water)

12.2. Persistence and degradability

Hydrogen peroxide in the environment is rapidly degraded by biotic and abiotic processes.

12.3. Bioaccumulative potential

Bioaccumulation is not anticipated for inorganic compounds that are miscible with water.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

Not applicable for inorganic substances.

12.6. Other adverse effects

No information available.

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Review local/regional/international regulations or requirements prior to disposal. Store material for disposal as indicated in Storage Conditions. **Contaminated packaging:** Dispose of as unused product.

SECTION 14 Transport information

14.1. UN number	UN2014
14.2. UN proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
14.3. Transport hazard class(es)	5.1 (8)
Hazards label(s):	5.1 + 8
14.4. Packing group	II
14.5. Environmental hazards	No
Marine pollutant:	No
14.6. Special precautions for user	
ADR/RID hazard identification number:	58
ADR/RID tunnel code:	E
IMDG EMS number:	F-H, S-Q
IMDG Category:	D

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

OSHA Hazards: CAS #7722-84-1 meets criteria for hazardous material, as defined by 29 CFR 1910.1200.

SARA:

302: This material contains Hydrogen peroxide (CAS# 7722-84-1, 30 - 32% w/w), which is not subject to the reporting requirements.

313: This material contains Hydrogen peroxide (CAS# 7722-84-1), which is subject to the reporting requirements of Section 313 of SARA Title III.

311/312: This material contains Hydrogen peroxide (CAS# 7722-84-1).

SAFETY DATA SHEET (SDS)

according to Hazardous Products Regulations (SOR/2015-17)

Hydrogen peroxide solution, 30-32% w/w

Revision date: 09/14/2020 (mm/dd/yyyy)

Revision number: 5.0

Right To Know Lists:

Massachusetts: CAS# 7722-84-1 is listed, 1 lbs RQ.

Pennsylvania: CAS# 7722-84-1 is listed.

New Jersey: CAS# 7722-84-1 is listed, RTK# 1015.

California Prop. 65: CAS# 7722-84-1 is not subject to this act. CAS# 7732-18-5 is not subject to this act.

Inventory Status:

Canada DSL/NDSL Inventory List: CAS# 7722-84-1 is listed. CAS# 7732-18-5 is listed.

US TSCA Inventory List: CAS# 7722-84-1 is listed. CAS# 7732-18-5 is listed.

EC Inventory List: CAS# 7722-84-1 is listed, EC# 231-765-0. CAS# 7732-18-5 is listed, EC# 231-791-2.

15.2. Chemical safety assessment

Not applicable.

SECTION 16 Other information

Full text of H-Statement(s) and P-Statement(s):

H318: Causes serious eye damage.

H302 + H332: Harmful if swallowed or if inhaled.

P261: Avoid breathing fume/gas/mist/vapours/spray.

P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P310: Immediately call a POISON CENTER or doctor.

P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P330: Rinse mouth.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

P501: Dispose of contents/container according to federal, regional and local government requirements.

Date modified: 09-2020, Supersedes 07-2017, 07-2014, 04-2014 & 04-2011

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