Safety Data Sheet

Section 01 Identificatic n

Product Identifier Hydrogen Peroxide 12%

Product Use and Restrictions on Use Industrial bleaching, processing, pollution abatement, aseptic packaging and other food related applications, water treatment.

Initial Supplier Identifier

Steveston Chemical Solutions Ltd.
2060 Viceroy Place
Richmond, BC. Canada
V6V 1Y9
Phone: 604 831 5865

Emergency Poison Phone Numbers by Province

Alberta: 1-800-332-1414
British Columbia: 1-800-567-8911
Manitoba: 1-855-776-4766
New Brunswick: 911
Newfoundland & Labrador: 1-866-727-1110
Northwest Territories: 1-800-332-1414
Nova Scotia: 1-800-565-8161
Nunavut: 1-866-913-7897
Ontario: 1-800-268-9017
Prince Edward Island: 1-800-565-8161
Quebec: 1-800-463-5060
Saskatchewan: 1-866-454-1212
Yukon: 1-867-393-8700

Section 02 Hazard Identification

Physical Hazards

This product does not qualify for any physical hazard class under WHMIS 2015

Health Hazards

Serious eye damage / eye irritation Category 1

Signal Word

Danger

Hazard Statements

H318 Causes serious eye damage.

Pictograms

Precautionary Statements

Prevention

P264 Wash affected body parts thoroughly after handling.

P280 Wear eye protection and face protection

Response

P305 P351 P338 P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Hazards Not Otherwise Classified

Not available

Supplemental Information

Not available

Section 03 Composition / Information on Ingredients

Hazardous Ingredients:

Chemical name	Common name(s)	CAS number	Concentration (w/w%)
Hydrogen peroxide	Hydrogen peroxide	7722-84-1	12%

Section 04 First-Aid Measures

Description of necessary first-aid measures

Inhalation Get medical advice / attention if you feel unwell or are concerned.

Ingestion Get medical advice / attention if you feel unwell or are concerned.

Skin contact Rinse skin with lukewarm, gently flowing water / shower for 5 minutes or until product is removed. If skin irritation occurs or if you feel unwell: Get medical advice / attention.

Eye contact Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 30 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a POISON CENTER or doctor.

Most important symptoms and effects, both acute and delayed

Inhalation May cause respiratory irritation.

Ingestion May cause discomfort or nausea.

Skin contact Causes transient skin irritation.

Eye contact Causes serious eye damage.

Further information For further information see Section 11 Toxicological Information.

Section 05 Fire Fighting Measures

Suitable extinguishing media Extinguish fire using extinguishing agents suitable for the surrounding fire.

Unsuitable extinguishing media Water jets are not recommended in fires involving chemicals.

Specific hazards arising from the chemical Not available

Special protective equipment for fire-fighters Wear NIOSH-approved self-contained breathing apparatus and chemical-protective clothing.

Section 06 Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment (See Section 08 Exposure Controls and Personal Protection). Stay upwind, ventilate area.
Environmental Precautions	Prevent material from entering waterways, sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.
Methods and Materials for Containment and Cleaning Up	SMALL SPILLS: Stop or reduce leak if safe to do so. Clean up spill with non-reactive absorbent and place in suitable, covered, labeled containers. Flush area with water. Contaminated absorbent material may pose the same hazards as the spilled product. Use vented containers to avoid pressure buildup. LARGE SPILLS: Contact fire and emergency services and supplier for advice.

Section 07 Handling and Storage

Precautions for Safe Handling	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. Inspect containers for damage or leaks before handling. If the original label is damaged or missing replace with a workplace label. Have suitable emergency equipment for fires, spills and leaks readily available. Never return contaminated material to its original container.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight, away from heat sources and incompatible materials. Always store in original labeled container. Keep containers tightly closed when not in use and when empty. Empty containers may contain hazardous residues. Protect label and keep it visible.
Incompatibilities	Bases, such as potassium hydroxide, sodium hydroxide, calcium hydroxide (slaked lime), ammonia, carbonates. Reducing agents, such as hydrogen, sodium borohydride, Sulphur dioxide, thiosulphates, hydrazine, phosphates, carbon, and oxalic, formic and ascorbic acid. Organic material, such as wood, paper, gasoline, diesel, solvents and some glycol based heat transfer fluids Metals, such as aluminum, steel, and brass.

Section 08 Exposure Controls and Personal Protection

Exposure limits

Component	Regulation	Type of listing	Value
Hydrogen Peroxide	ACGIH	TWA	1 ppm

Engineering controls

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	A soak hose and eyewash station or emergency shower and eyewash station should be available, tested, and be in close proximity to the product being handled in accordance with provincial regulations.

Protective equipment

The following are recommendations only. It is the responsibility of the employer / user to conduct a hazard assessment of the process in which this product being used and determine the proper engineering controls and PPE for their process. Additional regulatory and safety information should be sought from local authorities and, if needed, a professional industrial hygienist.

Eye and face protection	Where there is potential eye or face exposure, tightly fitting safety goggles and a face shield or a full face respirator or similar protective equipment which protects the wearer's face and eyes are recommended. Contact lenses are not recommended; they may contribute to severe eye injury.
Hand and body protection	Where handling this product it is recommended that skin contact is avoided.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment. **NIOSH respirator recommendations for: Hydrogen peroxide** **Up to: 10 ppm** (APF = 10) Any supplied-air respirator **Up to: 25 ppm** (APF = 25) Any supplied-air respirator operated in a continuous-flow mode **Up to: 50 ppm** (APF = 50) Any self-contained breathing apparatus with a full facepiece. (APF = 50) Any supplied-air respirator with a full facepiece **Up to: 75 ppm** (APF = 2000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode **Emergency or planned entry into unknown concentrations or IDLH conditions:** (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode (APF = 10,000) 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:** (APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted canister providing protection against Hydrogen peroxide
Thermal hazards	Not available

Section 09 Physical and Chemical Properties

Appearance

Physical state	Liquid
Colour	Clear, colourless
Odour	Odourless
Odour threshold	Not available

Property

pH	<2
Melting point / freezing point	-6.4 °C (10%)

Initial boiling point and boiling range	101.7 °C (10%)
Flash point	Not applicable
Evaporation rate	Not available
Flammability	Not applicable
Upper flammable limit	Not applicable
Lower flammable limit	Not applicable
Vapour pressure	Not available
Vapour density	1.17
Relative density	Not applicable
Solubility	Soluble in water
Partition coefficient: n-octanol/water	Log Pow = -0.70 to -1.33
Auto-ignition temperature	Not applicable
Decomposition temperature	150-152 °C (Pure Hydrogen Peroxide)
Viscosity	Not available
Specific gravity	1.034 g/mL (10% @ 20 °C)
Formula	H_2O_2
Molecular weight	34.02 g/mol

Section 10 Stability and Reactivity

Reactivity	This product is an oxidizer and will react with reducing agents and organic compounds such as paper or wood to produce heat and could potentially catch fire.
Stability	This product is stable if stored according to the recommendations in Section 07. Exposure to sunlight or high temperatures may cause the degradation of this product over time.
Possibility of hazardous reactions	Not available
Conditions to avoid	Avoid contact with incompatible materials. Do not heat.
Incompatible materials	Bases, such as potassium hydroxide, sodium hydroxide, calcium hydroxide (slaked lime), ammonia, carbonates. Reducing agents, such as hydrogen, sodium borohydride, sulphur dioxide, thiosulphates, hydrazine, phosphites, carbon, and oxalic, formic and ascorbic acid. Organic material, such as wood, paper, gasoline, diesel, solvents and some glycol based heat transfer fluids Metals, such as aluminum, steel, and brass.
Hazardous decomposition products	Molecular oxygen.

Section 11 Toxicological Information

Acute Toxicity (LD50 / LC50 values)

Component	Route	Species	Value	Exposure time
Hydrogen peroxide 20%	Oral	Rat	>2,000 mg/kg	
Hydrogen peroxide	Dermal	Rabbit	>2,000 mg/kg	
	Inhalation (aerosol)	Mouse	>170 mg/m³	4 hours

Toxic Health Effect Summary

Chemical characteristics	Strong oxidizer.
Skin	Causes transient skin irritation.
Ingestion	May cause discomfort or nausea.
Inhalation	May cause respiratory irritation.
Eye contact	Causes serious eye damage.
Sensitization	This product and its components at their listed concentration have no known sensitizing effects.
Mutagenicity	This product and its components at their listed concentration have no known mutagenic effects.
Carcinogenicity	IARC has classified hydrogen peroxide as group 3, not classifiable as to its carcinogenicity to humans.
Reproductive toxicity	This product and its components at their listed concentration have no known reproductive effects.
Specific organ toxicity	This product and its components at their listed concentration have no known effects on specific organs.
Aspiration hazard	Not available
Synergistic materials	Increased airways resistance was observed in volunteers exposed to hydrogen peroxide 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	Type	Species	Value	Exposure Time
Hydrogen peroxide	LC50	Pimephales promelas	16.4 mg/L	72 hours
	EC50	Daphnia pulex	2.4 mg/L	48 hours
	NOEC	Skeletonema costatum	0.68 mg/L	48 hours

Biodegradability	The domestic substance list categorizes hydrogen peroxide as persistent.
Bioaccumulation	The domestic substance list categorizes hydrogen peroxide as non-bioaccumulative.
Mobility	This product is water soluble, is not predicted to adsorb to soil and may contaminate ground water.
Other adverse effects	Not available

Section 13 Disposal Considerations

Waste From Residues / Unused Products	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

Section 14 Transport Information

UN number	UN2984
UN proper shipping name and description	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 8% but less than 20% hydrogen peroxide (stabilized as necessary)

Transport hazard class(es)	5.1
Packing group	III
Excepted quantities	5 L
Environmental hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special precautions	No special provisions
Transport in bulk	ERAP index: not available

MARPOL 73/78 and IBC Code:

Product name:	Hydrogen peroxide solutions (over 8% but not over 60% by mass)	
Pollution category:	Y	
Hazards:	the product is included in the Code because of both its safety and pollution hazards.	
Ship type:	ship type 3	
Tank type:	integral gravity tank	
Tank vents:	controlled venting	
Tank environmental control:	no special requirements under this Code	
Electrical equipment:	Temperature classes	no requirements
	Apparatus group	no requirements
	Flash point	non-flammable product
Gauging:	closed gauging	
Vapour detection:	no special requirements under this Code	
Fire protection:	no special requirements under this Code	
Emergency equipment	no special requirements under this Code	
Specific and operational requirements	15.5.2, 15.18, 15.19.6	

Additional information Secure containers (full or empty) during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 16 of this SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and published test data regarding the classification of this product are listed in the references at section 16 of this SDS.

Section 15 Regulatory Information.

NOTE: THE PRODUCT LISTED ON THIS SAFETY DATA SHEET HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN HAZARDOUS PRODUCTS REGULATIONS. THIS SAFETY DATA SHEET CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

All components of this product appear on the domestic substance list.

Section 16 Other Information

Date of latest revision: June 19, 2020

Note: The responsibility to provide a safe workplace remains with the buyer / user. The buyer / user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the buyer / user to comply with all applicable laws and regulations regarding handling, using, reselling and shipping this product.

References:

1) CHEMINFO
2) TOXNET
3) eChemPortal
4) ECHA
5) Transportation of Dangerous Goods Canada
6) HSDB
7) PAN