

## SAFETY DATA SHEET

### SECTION 1 - CHEMICAL PRODUCT & COMPANY IDENTIFICATION:

**Product Identifier: Hydrogen Peroxide  
30-60% Aqueous Solution  
Food Grade**

Other Means of Identification:  
7722-84-1

**Emergency Phone Number: 877-378-7745**

**Effective Date:** October 1, 2015

**Product Use:** Bleaching / Oxidizing Agent  
in Pulp & Paper, Surface Treatment in Metals  
Industry and Bacterial Agent in Water Treatment.

**Supplier Name & Address:**

### SECTION 2 - HAZARDS IDENTIFICATION:

**Emergency Overview:** Hydrogen Peroxide aqueous solution is a clear, colourless liquid that is harmful if swallowed. This product is an Oxidizer that accelerates combustion of organic material (*wood, paper, oil, clothing*). Elevated temperatures above (38°C) can increase the decomposition rate of the product. Material will decompose when exposed to heat, metals, alkalis, reducing agents or impurities and this will generate oxygen gas, steam and heat.

**Classification : OSHA Regulatory Status - Hazardous:**

Acute Toxicity - Oral	Category 4
Acute Toxicity - Inhalation, Vapours	Category 4
Skin Corrosin/Irritation	Category 2, Sub-Category B
Serious Eye Damage/Irritation	Category 1
Specific Organ Toxicity (Single Exposure)	Category 3
Oxidizing Liquids	Category 2

***GHS LABEL STATEMENT - EMERGENCY OVERVIEW***

**DANGER**

Hazard Statements

H318 - Causes Serious Eye Damage  
H302 - Harmful if swallowed  
H332 - Harmful if inhaled  
H335 - May cause respiratory irritation  
H315 - Causes Skin Irritation  
H270 - May cause or intensify fire; Oxidizer



### Precautionary Statements - Prevention

- P271 - Use only in well-ventilated areas or outdoors
- P261 - Avoid inhaling Mists/Vapours/Spray
- P280 - Wear Protective Gloves/Protective Clothing/Eye and Face Protection
- P210 - Keep away from Heat/Spark/Open Flame/Ignition Source/No Smoking
- P221 - Take precautions to avoid mixing with Flammables/Combustibles
- P220 - Store away from any Combustibles/Flammable Materials

### Precautionary Statements - Response

- P305, P351, P338 Eye Contact: Rinse Continuously with water holding eyelid open.
- P310 Call a doctor or Poison Control Centre immediately.
- P302, P352 Skin Contact, wash with plenty of soap and water.
- P332, P313 Skin Irritation, seek medical attention/advice.
- P362, P364 Remove contaminated clothing and launder prior to re-use.
- P304, P340 Inhalation, remove individual to fresh air.
- P312 Call a doctor or Poison Control Centre immediately.
- P370, P378 In case of Fire, use water for extinction.

\*No other Hazards were identified.

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS:

<u>Ingredients</u>	<u>CAS#</u>	<u>%wt/wt</u>	<u>Exposure Limits</u>
Hydrogen Peroxide	7722-84-1	30-60%	OSHA PEL: 1ppm (1.4 mg/m <sup>3</sup> ) TWA, NIOSH IDLH: 75 ppm
Water	7732-18-5	40-70%	

## SECTION 4 - FIRST AID MEASURES:

**Eyes:** Flush with running water for at least 15 minutes while holding eyelids open. Get medical attention.

**Skin Contact:** Flush contaminated skin with plenty of soap and water. Remove contaminated clothing. Launder contaminated clothing thoroughly before re-use. Seek medical attention if skin is burned or symptoms continue.

**Inhalation:** Remove victim to fresh air. Aid in breathing if necessary. If breathing stops, administer artificial respiration. Seek medical attention. Effects may be delayed for a few hours and aggravated by physical exertion.

**Ingestion:** Give plenty of water to drink to dilute stomach contents. *Do not induce vomiting.* Seek immediate medical attention.

### **Most Important Symptoms and Effects (Both Acute & Delayed)**

Accidental ingestion may cause mucous membrane burns to Mouth/Esophagus/Stomach. Oxygen rapid release may cause stomach swelling, hemorrhaging and could cause fatal damage to organs if a large amount has been ingested. Skin contact may cause burns and blisters. Hydrogen Peroxide irritates the respiratory system and may cause pulmonary edema. Effects may not be immediate.

### **Indication of Immediate Medical Attention/Special Treatment (If necessary)**

Hydrogen Peroxide is a strong Oxidizer. Direct contact with the eye is expected to cause corneal damage especially if not washed immediately. Due to the possibility of corrosive effects on the gastrointestinal tract after ingestion attempts at evaluating the stomach by gastric larvae should be avoided. There is a remote possibility that an orogastric tube may be required for reduction of the severe distension due to gas formation.

## **SECTION 5 - FIRE FIGHTING MEASURES:**

### **Flammable Properties:**

This product is not combustible, but a strong oxidizer. Mixtures with combustible or flammable materials may ignite easily, or may explode in contaminated, closed containers. Residual hydrogen peroxide that is dried on organic materials such as wood, paper, fabrics, cotton, leather or other combustibles can cause the materials to ignite and result in a fire. **Auto Ignition Temperature:** Non flammable, but decomposes at approximately 38°C (100°F).

### **Extinguishing Media:**

**USE WATER ONLY!** Use large amounts of water and spray to cool containers. DO NOT use dry chemicals, foam or a fire blanket. For large fires, flood fire area from a distance, do not flush to sewer unless concentration is 1% or less due to explosion hazard. Always stay away from the ends of tanks and wear self-contained breathing apparatus.

**Oxidizer – Keep away from flammable and combustible materials.**

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES:**

### **Personal Precaution/Emergency Procedures:**

Wear full protective equipment including adequate respiratory protection. Review the safety procedures in case of explosion or fire, before proceeding in clean up. Ventilate area. Eliminate all sources of ignition.

### **Environmental Precautions:**

Comply with Federal, Provincial and Municipal regulations.

### **Methods for Containment/Clean Up:**

Do not use absorbents. Contain small spills using non-combustible

## **SECTION 7 - HANDLING & STORAGE:**

**Handling Procedures:** Avoid all skin contact. Ventilate adequately, otherwise wear an appropriate breathing apparatus. Avoid contact with eyes, skin or clothing. Never return unused peroxide to original container. Treat as flammable material; keep away from heat, sparks and open flames. Keep container closed when not in use.

**Storage Procedures:** Store in a cool, dry, well-ventilated place away from other materials. Store in original, vented containers away from strong acids, strong oxidizing and reducing agents.

### **Incompatible Products:**

Do not store in heat or direct sunlight. Store away from incompatible materials such as high pH material, metals, salts, organics, dust & dirt. Do not confine in un-vented vessels or between closed valves.

## **SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION:**

### **Control Parameters:**

**Exposure Guidelines:** OSHA PEL: 1ppm (1.4 mg/m<sup>3</sup>) TWA ACGIH TLV: 1 ppm TWA NIOSH IDLH: 75 ppm

**Engineering Controls:** Use process enclosures, or local exhaust ventilation to keep airborne levels below recommended exposure limits. Emergency shower should be in close proximity. Eye wash facility should be close in proximity.

### **Personal Protective Equipment:**

**Gloves:** Chemical resistant gloves. Butyl rubber gloves.

**Respiratory:** For vapour or mist concentration in excess of 10 ppm, a self-contained breathing apparatus (NIOSH/MSHA approved) should be used.

**Eye/Face:** Chemical goggles and face shield.

**Footwear:** Neoprene boots.

**Clothing:** Impermeable apron, PVC or rubber chemical suit.

## **SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES:**

**Physical State:** Clear, colourless liquid

**Odour:** Slightly sharp, pungent

**Odour Threshold:** Not available

**Specific Gravity (water =1):** 1.07-1.213

**Vapour Pressure (mmHg):** (at 30 deg C.)

**Viscosity:** 1.05-1.21

**Vapour Density (AIR=1):** 0.66-0.95 (Air=1)

**Evaporation Rate:** > 1

**Boiling Point:** 103 - 120°C

**pH:** 2-3.5

**Solubility in Water (% w/w):** 100%

**Freezing Point:** -17 to -56°C

**Melting Point:** (Liquid)

**Percent Volatile:** 100%

## **SECTION 10 - STABILITY & REACTIVITY:**

### **Hazardous Decomposition Products:**

Hydrogen Peroxide decomposes on heating to produce oxygen gas, steam and heat.

### **Stability:**

**Yes:** Stable when product is pure, stored under suitable conditions and temperature is less than 38°C.

**No, which conditions:** Stability is reduced when pH is above 4.0. Heat and contact with combustible materials.

### **Conditions to Avoid:**

**Reactivity Conditions:** Avoid heating or mixing with organic materials, tissues. Containers can explode in fire. Avoid contamination of any kind. Avoid contact with combustible material.

**Hazardous Products of Decomposition:** Oxygen, steam and heat.

**Sensitivity to Static:** May be sensitive. **Sensitivity to Impact:** Protect against physical damage.

## SECTION 11 - TOXICOLOGICAL INFORMATION:

*Harmful if swallowed, ingesting large amounts may be fatal.*

**Irritancy of Material:** Extremely corrosive to all tissues, will cause irritation, burns

**Sensitizing Capability of Material:** See route of entry: Skin contact.

**Carcinogenicity of Material:** Not listed

**LD50 of Material, Species & Route:** Oral: >2000 mg/kg (mouse). Vapour: 1437 ppm, 4 hours [rat].

**Delayed and Immediate Effects as well as Chronic Effects from Short & Long-Term Exposure.**

## SECTION 12 - ECOLOGICAL INFORMATION:

### **Extotoxicity Effects:**

Harmful to aquatic organisms, especially to algae. Freshwater algae are affected by hydrogen peroxide in concentrations of 2-20 mg/L; while 1mg/L affects certain marine algae.

### **Persistence & Degradability:**

Hydrogen Peroxide occurs naturally as a result of photochemical processes in living organisms.

Product decomposes into water and oxygen.

### **Mobility:**

Product will likely be mobile in the Environment due to its water solubility but will likely degrade over time.

## SECTION 13- DISPOSAL CONSIDERATIONS:

**Waste Disposal:** In accordance with Federal, Provincial or Local government requirements. Contact a waste disposal firm for advice. Empty containers should be rinsed with water prior to disposal. May create fire or explosion hazard.

## SECTION 14 - TRANSPORT INFORMATION:

**UN Number:** 2014  
**Proper Shipping Name:** HYDROGEN PEROXIDE, AQUEOUS SOLUTION  
**Hazard Class:** Class 5.1  
**Sub Class:** 8  
**Packing Group:** II

## SECTION 15 - REGULATORY INFORMATION:

**WHIMIS Hazard Classification:** Class C, D1B, E, F



## **SECTION 16 - OTHER INFORMATION:**

**Disclaimer:**

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