



# Aqua Chemical Supply, Inc.

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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hydrogen Peroxide 35%  
Synonyms: None  
Chemical Family: None Known  
Application: Oxidizing agent. Bleach & water chemicals.

Manufacturer/Supplier/Distributor:  
Univar Canada Ltd.  
9800 Van Horne Way  
Richmond, BC V6X 1W5

Emergency telephone number: For emergency assistance involving chemicals call  
CHEMTREC day or night at: 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Eye Contact: Corrosive. May cause conjunctivitis, corneal burns and permanent damage. Symptoms may occur with delay.

Skin Contact: Corrosive. May cause burns resulting in permanent damage. Prolonged exposure may cause severe irritation and white discoloration. Burning may result in localized erythema (redness) or even blistering of the skin.

Inhalation: Causes severe respiratory irritation. Vapors may cause pulmonary edema. Toxic effects may be delayed.

Ingestion: Ingestion of high concentrations causes rapid release of oxygen which may expand the esophagus or stomach resulting in severe damage (bleeding, ulceration or perforation). Expected to cause burns to the gastrointestinal tract. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	Percentage
Hydrogen Peroxide	(W/W)
7722-84-1	30-60

LD50s and LC50s Route & Species:

LD50 (oral, male rat): 1193 mg/kg (35% solution) ; LD50 (oral, female rat): 801 mg/kg (60% solution) ; LD50 (oral, male rat): 75 mg/kg (70% solution) ; LD50 (oral, mouse): 2000 mg/kg (90% solution) ; LD50 (dermal, rabbit): approximately 690 mg/kg (90% solution) ; LD50 (oral, rat): 805 mg/kg (70% solution) ; LC50 (inhalation, rat) ; >0.17mg/l/4h (50% solution) ; LD50 (dermal, rabbit) : >6500 mg/kg (70% solution)

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing. Have an ophthalmologist make an evaluation of eye injury.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Notes to Physician: Hydrogen peroxide at this concentration is a strong oxidant. Direct contact with the eye is likely to cause corneal damage especially if not washed immediately. Careful ophthalmologic evaluation is recommended

and the 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 or orogastric tube may be required for the reduction of severe distension due to gas formation.

### 5. FIRE FIGHTING MEASURES

Flash Point: None.

Flash Point Method: Not applicable. Autoignition Temperature: Not available. Flammable Limits in Air (%): Not Available.

Extinguishing Media: Do not use CO2 extinguisher on this material; use only water spray or appropriate foam. Do not use organic compounds on this material.

Special Exposure Hazards: Strong oxidizer. Contact with combustible materials may cause a fire. Release of oxygen may support combustion. Contact with incompatible materials (e.g. metals, alkalis and reducing agents) will cause hazardous decomposition resulting in the release of large quantities of heat, steam and oxygen gas. Exposure to heat may cause hazardous decomposition. A severe detonation hazard may exist when mixed with organic liquids, e.g. kerosene or gasoline. Isolate and restrict area access. Fight fire from a safe distance and from a protected location. Stay upwind. Stop leak only if safe to do so. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up which could result in container rupture.

Hazardous Decomposition/Combustion Materials (under fire conditions): Oxygen. Steam.

Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.

NFPA RATINGS FOR THIS PRODUCT ARE: HEALTH 3 FLAMMABILITY 0 INSTABILITY 3 SPECIAL Oxidizer

HMIS RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 0, REACTIVITY 3

### 6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment.

Environmental Precautionary Measures: Prevent entry into sewers or streams, dike if needed.

Procedure for Clean Up: Restrict access to unprotected personnel. Stop leak only if safe to do so. Small spills: Flush area with water. Large spills: Dike with earth, sand or inert sorbent material to contain spill. Remove liquid with compatible pumps or vacuum equipment. Place in suitable container for disposal. Flush area with water. Keep materials which can burn away from spilled materials. Spontaneous combustion hazard: - combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles, can cause the material to ignite and result in a fire.

### 7. HANDLING AND STORAGE

Handling: For food plant and other industrial use only. Handle and open containers with care. Never touch eyes of face with hands or gloves that may be contaminated with this product. Do not ingest. Avoid inhalation of chemical. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personnel protective equipment.

Storage: Do not store near combustible materials. Store in a cool, dry, well ventilated area. Keep containers tightly closed. Do not store this material in containers made of light metals. Recommended container materials: glass, polyvinyl chloride, polyethylene, ceramics, polypropylene. Use adequate venting devices on all packages, containers and tanks and check correct operation periodically. Do not confine product in unvented vessels or between closed valves. Risk of overpressure and bursting due to decomposition in confined spaces and pipes. Do not store on wooden floors or wooden pallets.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Use process enclosure, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

Respiratory Protection: If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator. In case of spill or leak resulting in unknown concentration, use a NIOSH approved supplied air respirator.

Gloves:

Natural rubber gloves. Butyl rubber gloves. Nitrile gloves.

Skin Protection: Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

Ingredients                    Hydrogen Peroxide

Exposure Limit – ACGIH     1 ppm TLV-TWA

Exposure Limit – OSHA     1 ppm TWA 1.4 mg/m<sup>3</sup> TWA

Immediately Dangerous to Life or Health – IDLH 75 ppm

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:            Liquid  
 Color:                      Clear Colorless  
 Odor:                        Pungent  
 pH                            <2 (20°C)  
 Specific Gravity:         1.13  
 Boiling Point:            119°C /246.2°F  
 Freezing/Melting Point : -56°C / -68.8°F  
 Vapor Pressure:         48 Pa @ 30°C  
 Vapor Density:            Not Available.  
 % Volatile by Volume: Not Available.  
 Evaporation Rate:        Not Available.  
 Solubility:                Completely miscible.  
 VOCs:                      Not Available.  
 Viscosity:                 1.8 mPa.s @ 0°C  
 Molecular Weight:       34.02 g/Mol  
 Other:                      Not Available

### 10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: High temperatures. Spontaneous combustion hazard: - Combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood, or other combustibles, can cause the material to ignite and result in a fire.

Materials to Avoid: Metals. Reducing agents. Alkalis. Combustible material. Organic materials. Heavy metals and their salts.

Hazardous Decomposition Products: Steam. Oxygen.

Additional Information:

No additional remark

### 11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: Ingestion of high concentrations causes rapid release of oxygen which may expand the esophagus or stomach resulting in severe damage (bleeding, ulceration or perforation). Expected to cause burns to the gastrointestinal tract. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

Skin Contact: Corrosive. May cause burns resulting in permanent damage. Prolonged exposure may cause severe irritation and white discoloration. Burning may result in localized erythema (redness) or even blistering of the skin.

Inhalation: Causes severe respiratory irritation. Vapors may cause pulmonary edema. Toxic effects may be delayed.

Eye Contact: Corrosive. May cause conjunctivitis, corneal burns and permanent damage. Symptoms may occur with delay.

Additional Information: Acute Test of Product:

Acute Oral LD50: 805 mg/kg (rat)

Acute Dermal LD50: >6500 mg/kg (rabbit)

Acute Inhalation LC50: Not Available.

Carcinogenicity:

Ingredients  
 Hydrogen Peroxide  
 IARC - Carcinogens  
 Group 3  
 ACGIH - Carcinogens  
 A3  
 Carcinogenicity Comment: No additional information available.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity: It is not possible to conclude that hydrogen peroxide is mutagenic. Positive results have been obtained in cultured humans cells. Negative results have been obtained in relevant studies using live animals. Positive results have been obtained in short-term mutagenicity tests.

## 12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Ingredients  
 Hydrogen Peroxide  
 Ecotoxicity - Fish Species Data  
 LC50 (48 hr) carp: 42 mg/L. ; LC50 (96 hr) fish : 37.4 mg/l  
 Acute Crustaceans Toxicity:  
 EC50 (24 hr) Daphnia : 7.7 mg/l  
 Ecotoxicity – Freshwater Algae Data  
 NOEC (72 hr) Algae : 0.1 mg/l  
 Other Information:  
 Under ambient conditions quick hydrolysis, reduction or decomposition occurs. Hydrogen peroxide quickly decomposes to oxygen and water.

## 13. DISPOSAL CONSIDERATION

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.  
 Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

## 14. TRANSPORT INFORMATION

DOT (US)  
 DOT Shipping Name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION  
 DOT Hazardous Class 5.1 (8)  
 DOT UN Number: UN2014  
 DOT Packing Group: II  
 DOT Reportable Quantity (lbs): Not Available  
 Note: No additional remark.  
 Marine Pollutant: No.

TDG (Canada):  
 TDG Shipping Name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION  
 Hazard Class: 5.1 (8)  
 UN Number: UN2014  
 Packing Group: II  
 Note: No additional remark.  
 Marine Pollutant: No.

## 15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

U.S. Regulatory Rules  
 Ingredients

Hydrogen Peroxide  
CERCLA/SARA - Section  
302:

Listed

SARA (311, 312) Hazard

Class:

Not Listed.

CERCLA/SARA - Section

313:

Not Listed.

California Proposition 65: Not Listed.

MA Right to Know List: Listed.

New Jersey Right-to-Know List: Listed.

Pennsylvania Right to Know List: Listed.

Additional Notes: Not Available

WHMIS Hazardous Class:

C OXIDIZING MATERIALS

D1B TOXIC MATERIALS

E CORROSIVE MATERIAL

F DANGEROUSLY REACTIVE MATERIAL



## 16. OTHER INFORMATION

### Notice

Aqua Chemical Supply, Inc. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this SDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from your local Aqua Chemical Supply, Inc. sales office.

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