

HYDROGEN PEROXIDE 50%

Revised: 12/12/17

1 IDENTIFICATION

Product Name: HYDROGEN PEROXIDE 50%

Product Code :1201001

Recommended use of the chemical and restrictions on use:Industrial applications

Hubbard-Hall Inc.

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Emergency Phone Number

CHEMTREC: 1 (800) 424-9300

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2 HAZARDS IDENTIFICATION



Signal Word: DANGER

Hazard Category: Acute Toxicity-Oral Hazard Category 4

Skin Corrosion/Irritation Hazard Category 1C

Specific Target Organ Toxicity (Single Exposure) Hazard Category 2

Oxidizing Liquids Hazard Category 1

Eye Damage/Irritation Hazard Category 1

Hazard Statements: Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause respiratory irritation.

May cause fire or explosion; strong oxidizer.

Causes serious eye damage.

Prevention: Wash skin thoroughly after handling.

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

Do not breath dusts or mists.

Use only outdoors or in well ventilated area.

Keep away from heat.

Keep/Store away from clothing and other combustible material.

Take any precaution to avoid mixing with combustibles.

Wear fire/flammable resistant/retardant clothing.

Keep container tightly closed.

Wear protective gloves, chemical protective clothing, eye protective goggles and face shield for face protection.

Response: If swallowed: Call poison center, if you feel unwell.

Rinse Mouth

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call poison center/doctor if you feel unwell.

If exposed or concerned: Get medical advice/attention.

If in eyes: Wash cautiously with water for several minutes. Remove contact lenses if present and easy to do Continue rinsing. If eye irritation persists, get medical attention

If on skin(or hair): Take off immediately all contaminated clothing. Rinse with water/safety shower. Call doctor if irritation persists.

Wash contaminated clothing before reuse.

In case of fire: Use foam, dry chemicals, carbon dioxide or other type of vapor producing extinguisher. Do not use water.

Storage: Store in a well ventilated place. Keep cool .

Disposal: Dispose of contents/container in accordance with local, regional, national, or international regulations.

3 COMPOSITION INFORMATION

Chemical Name	Common Name And Synonyms	CAS No. and other Unique identifiers	Concentration %
Hydrogen Peroxide		7722-84-1	40-60%

4 FIRST AID

After Inhalation:

If inhaled: Remove person to fresh air and keep comfortable for breathing. Get medical attention.

After Skin Contact:

If on skin(on hair): Take off immediately all contaminated clothing. Rinse with water/safety shower. Call doctor if irritation persists.

After Eye Contact:

If in eyes: wash with plenty of water and get medical attention.

Most Important Symptoms/Effects

Inhalation:

May cause irritation and inflammation in nose, throat and lungs.

Eye:

May cause ulceration of the cornea and blindness.

Skin:

Causes bleaching, redness and blistering of the skin.

Indication of immediate medical attention:

Severe eye and or skin irritation or burns.

5 FIRE FIGHTING MEASURES

Suitable and Unsuitable extinguishing media:

In case of fire: Use water, foam, chemical extinguisher or carbon dioxide.

Specific hazards arising from the chemical:

Product is fire stimulating. Contact with the following substances may cause inflammation: flammable substances. The product itself does not burn. Involved in fire, it may decompose yielding oxygen. Risk of overpressure and burst due to decomposition in confined spaces and pipes. Release of oxygen may support combustion. Strong oxidizer. Contact with combustible materials may cause a fire. Contact with incompatible materials (e.g. metals, alkalis, and reducing agents will cause hazardous decomposition under of heat, steam, and oxygen gas. Danger of decomposition under influence of heat. Lower explosive limit: Hydrogen Peroxide vapors >40 by weight .

This product spontaneously decomposes above 150 degrees celcius. A severe detonation hazard may exist when mixed with organic liquids, eg kerosene or gasoline. Hydrogen Peroxide itself is not flammable. drying of product on clothing or combustible materials such as paper, fabrics, leather, may cause fire. Mixtures of Hydrogen Peroxide with flammable liquids (solvents) may possessive explosive properties. Contamination can cause rapid decomposition, release of oxygen and pressure. Hydrogen Peroxide in the proximity of an ongoing fire must be diluted with large amounts of water.

Special protective equipment and precautions for firefighter

SCBA and clothing to protect against acid gases and other toxic releases .

6 ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment, & Emergency Proc**

Prevent spilled product from drains, sewers, waterways and soil.

Methods and Materials for containment & cleaning up:

Remove or shutdown ignition sources such as pilot lights, heating elements, furnaces and boilers.

Stop leak if possible without risk.

If trained in accordance 29 CFR 1910.120, leaks should be stopped. Spills should be contained and cleaned immediately. Persons performing clean up work should wear adequate personal protective equipment and clothing. Spills and releases should be reported, if required, to the appropriate local, state and federal regulatory agencies.

7 HANDLING AND STORAGE**Precautions for safe handling:**

Do not store with reducing agents, strong alkali or mix with combustible materials. Store only in properly vented containers. Do not plug vent caps on containers. Do not store in direct sunlight.

Conditions for safe storage, inc any incompatibilities:

Never return unused or partially used product to original container. Keep in well ventilated area.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std.	TWA-8hrs	STEL - 15 min.
Hydrogen Peroxide	ACGIH/OSHA	1 ppm	

ACGIH - American Control of Governmental Hygenists
OSHA - Occupational Safety and Health Administration

Ventilation:

Use local exhaust to keep personal exposures below the OSHA Permissible Exposure Limit (s) (PEL) or the ACGIH threshold Limit Values (TLV)Time Weight Average (TWA).

Other:

Insure that eye wash and safety shower are proximal to the work station.

Protective Gloves:

Acid resistant rubber.

Eye Protection:

Wear chemical safety goggles with face shield.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Water like
Odor:	Mild Odor
Odor Threshold:	N/A
PH:	1 - 2
Melting Point/Freezing Point:	N/A
Initial Boiling Point and Boiling Range:	N/A
Flash Point:	N/A
Evaporation Rate:	N/A
Flammability (solid, gas):	N/A
Upper/Lower flammability or explosive limits:	N/A
Vapor Pressure:	N/A
Vapor Density:	N/A
Relative Density:	1.190
Solubility (ies):	Complete in water
Partition Coefficient; n-octanol/water:	N/A
Auto-ignition Temperature:	N/A
Decomposition Temperature:	N/A
Viscosity:	N/A

10 STABILITY AND REACTIVITY

Reactivity:	Impurities, decomposition catalysts, metals. metallic salts, alkalis, Hydrochloric Acid, reducing agents.
Chemical Stability:	Stable
Conditions to Avoid:	pH above 3.0, trapped or inadequately vented H ₂ O ₂ , high temperatures and combustibles
Incompatible Materials:	Iron, Copper, Chromium, Nickel. Mercury, Cobalt, Lead, Manganese, Tin, Dust, Rust, Dirt and Organic Compounds and Alkaline Compounds.
Hazardous Decomposition Products:	Acid gases

11 TOXICOLOGICAL INFORMATION

Oral Administration:	Hydrogen Peroxide 60%, LD ₅₀ , Rat(Male) -872 mg/kg, OECD Test Guideline 401
Dermal administration:	Hydrogen Peroxide 35% -LD ₅₀ Rabbit(Male/female) , >2000 mg/kg. US EPA Method
Delayed effects:	NA
Immediate effects:	Hydrogen Peroxide. Effect on skin: Causes Caustic burns. With increasing contact length, local erythema or extreme irritation (whitening) up to blistering (caustic burn) can occur. Effect on eyes: Extreme irritation up to cauterisation. Can cause severe conjunctivitis, cornea damage or irreversible eye damage. Symptoms may occur with delay. Effects when swallowed: Swallowing can lead to bleeding of the mouth, esophagus and stomach. The rapid release of oxygen can cause distension and bleeding of the mucosa in the stomach and lead to severe damage of the internal organs, especially in the event of greater intake of product. Effect when inhaled: Inhalation of vapors/aerosols can lead to irritation of the respiratory tract and pulmonary edema. Symptoms may occur with delay.
Cancer Hazard:	Hydrogen Peroxide-IIARC Group 3-Not classifiable as to its carcinogenicity to humans, ACGIH -A3-confirmed animal carcinogen with unknown relevance to humans.

12 ECOLOGICAL INFORMATION

Fish, <i>Oncorhynchus mykiss</i>	LC ₅₀ 22mg/L-96 hrs
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Lepomis macrochirus, no data available
Daphnia Magna, LC50 24/mg/L 48 hrs
Abiotic degradability: No data available
Bioaccumulation potential: No data available
Water result: Disperses in water.
Soil/Sediment Result: Pronounced solubility and mobility

13 DISPOSAL CONSIDERATION

Dispose of in accordance with local, state and federal regulations.

14 TRANSPORT INFORMATION

UN Number: 2014
UN Proper Shipping Name: HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS,(WITH MORE THAN 40% BUT NOT MORE THAN 60% HYDROGEN PEROXIDE),
Transport Hazard Class (es): 5.1, (8)
Packing Group: II
ERG: 140

15 REGULATORY INFORMATION

HMIS: Health: 3 Flammability: 0 Reactivity: 1

Cercla NA

Sara Hazard Classification SARA Hazard Categories: Immediate Hazard:Yes Delayed Hazard:No Fire Hazard-No Pressure Hazard-No Reactivity Hazard-yes
not listed

16 OTHER INFORMATION

Disclaimer: The information is based on our knowledge to date but does not constitute an assurance of product properties and does not imply a legal contractual relationship.

Date Prepared: 12/17/14



Under the Chemical Facility Anti-Terrorism Standards (CFATS) regulation, you may be required to report hydrogen peroxide and mixtures that contain hydrogen peroxide to the Cybersecurity and Infrastructure Security Agency (CISA).

The CFATS program identifies and regulates high-risk chemical facilities to ensure they have appropriate security measures in place to reduce the risk of chemicals of interest (COI) from being weaponized.

Under CFATS, a chemical facility is “any establishment that possesses or plans to possess certain chemicals, at any relevant point in time ...” and can be a large company or a single individual. Facilities must report to CISA if in possession of a COI at or above a specified quantity, which is referred to as the screening threshold quantity (STQ). All COI holdings that meet or exceed the STQ must be reported, regardless of how long the facility possesses COI.

Hydrogen peroxide at a concentration of 35 percent or higher is a COI under CFATS. Hydrogen peroxide is an improvised explosive device precursor (IEDP) chemical that has been used to develop explosives used in recent terrorist attacks, including those in Colombo, Sri Lanka; Brussels, Belgium; and Manchester, United Kingdom.

Hydrogen peroxide is classified as a theft/diversion COI in Appendix A of the CFATS regulation. Thus, only hydrogen peroxide in transportation packaging, as defined in 49 CFR § 171.8, must be counted toward the STQ. For more information on transportation packaging, visit www.cisa.gov/publication/cfats-ao-2016-003.

The STQ for hydrogen peroxide in transportation packaging at a concentration of 35 percent or higher is 400 lb.

Failure to report possession of a COI at or above the STQ can be subject to civil penalties. For more information on hydrogen peroxide as a COI, visit www.cisa.gov/appendix-chemicals-interest.

Federal law requires 400 lb or more of a chemical mixture in which the concentration of hydrogen peroxide is 35 percent or higher and is contained in transportation packaging be reported to CISA.

Resources for Facilities with Hydrogen Peroxide

- **CFATS First Steps:** If your concentrations and quantities of hydrogen peroxide meet or exceed the STQ, you have 60 days from the time you come into possession to report your holdings via an online survey called a Top-Screen. **Get started** by visiting www.cisa.gov/cfats-process to learn more about how to comply with CFATS.
- **Contact the Chemical Security Assessment Tool (CSAT) Help Desk** for technical assistance at 1-866-323-2957 or at csat@hq.dhs.gov.
- **Learn more about the CFATS program** at www.cisa.gov/cfats. Resources include the regulation, list of COI, FAQs, and more on how facilities' information is protected.
- **Learn more about the Bomb-Making Materials Awareness Program (BMAP)** at www.cisa.gov/bmap. Resources include training and awareness products on identifying and reporting suspicious purchasing activity or theft of hydrogen peroxide-based products.

Prevent Theft or Diversion of Hydrogen Peroxide

- Never allow any unauthorized person(s) to purchase, receive, and/or store hydrogen peroxide. Review your inventory controls, physical controls, procedural measures, and “know your customers.”
- Be sure that all hydrogen peroxide is stored in a secure location.
- Notify local authorities immediately if, despite your best efforts, hydrogen peroxide goes missing.
- Encourage hydrogen peroxide retailers to participate in voluntary security measures such as BMAP.