

1. IDENTIFICATION

Product Name: **Hydrogen Peroxide 34.5%**
 Synonyms: Hydrogen peroxide in aqueous solution, H₂O₂
 CAS Number: 7722-84-1
 Product Use: Bleaching agent, chemical intermediate, metal treatment, water treatment

Manufacturer/Supplier: AgroChem, Inc
 26 Freedom Way
 Saratoga Springs, NY 12866
 518.226.4850

Transportation Emergency Number: CHEMTREC: 800.424.9300

2. HAZARDS IDENTIFICATION

GHS Classification

Physical Hazards	Oxidizing liquids	Category 3
Health Hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Eye damage/irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3
Environmental Hazards	Hazardous to aquatic environment, acute	Category 2
	Hazardous to aquatic environment, chronic	Category 4

GHS Label Elements



Signal Word: **DANGER!**

Hazard Statements

H272	May intensify fire; oxidizer.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H401	Toxic to aquatic life.
H413	May cause long lasting harmful effects to aquatic life.

SAFETY DATA SHEET

Precautionary Statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep away from clothing and other combustible materials.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301/312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P304/340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305/351/338	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/doctor.
P312	Call a POISON CENTER/doctor if you feel unwell.
P321	Specific treatment (see supplemental first aid instructions on this label).
P330	Rinse mouth.
P332/313	If skin irritation occurs: Get medical advice/attention.
P362/364	Take off contaminated clothing and wash it before reuse.
P370/378	In case of fire: Use water spray to extinguish.
P403/233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Weight %
Hydrogen Peroxide	7722-84-1	34.5

4. FIRST AID MEASURES

Inhalation: If breathed in, move person into fresh air. Consult a physician after significant exposure. Obtain medical attention.

Eye: Rinse with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. Obtain medical attention.

Skin: Rinse immediately with plenty of water. Immediately remove all contaminated clothing and shoes and soak them in water to prevent risk of fire, do not allow to dry out until washed.

Ingestion: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Obtain medical attention immediately. Do NOT induce vomiting. May cause chemical burns in mouth and throat.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water.

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Fire Fighting Procedures: In the event of fire, wear self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Unusual Fire and Explosion Hazards: Hydrogen peroxide is a strong oxidant and exothermally decomposes to water and large amounts of oxygen. Risk of explosion if exposed to fire. Do not allow run-off from fire fighting to enter drains or water courses.

Combustion Products: Oxygen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Use personal protective equipment. Ensure adequate ventilation.

Environmental Precautions: Try to prevent the material from entering drains or water courses. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and Materials for Containment and Cleaning Up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local regulations. Keep in suitable, closed containers for disposal. Never return spills in original containers for re-use. Avoid contact with combustible material (paper, wool, oil).

7. HANDLING AND STORAGE

Precautions for Safe Handling: Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations. When handling, use only inert lubricants and packings for pumps, valves and other equipment. Do not confine in unvented vessels. Never return unused material to storage receptacle. Protect from contamination. Keep away from heat and sources of ignition. Avoid shock and friction. Avoid contact with skin, eyes and clothing. Keep away from combustible material.

Conditions for Safe Storage, Including Any Incompatibilities: Keep in a cool, well-ventilated place. Store in a fireproof area. Store in a receptacle equipped with a vent. Store separately from all other materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:

Component	OSHA PEL-TWA	ACGIH TLV-TWA
Hydrogen Peroxide (CAS 7722-84-1)	1 ppm	1 ppm

Engineering Controls: Effective exhaust ventilation system. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment (PPE)

Eye/Face Protection: Tightly fitting safety goggles

Skin Protection: PVC or rubber gloves. Protective suit. Do not wear leather shoes. Do not wear protective clothes containing cotton.

Respiratory Protection: In the case of vapor or aerosol formation use a respirator with an approved filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid, clear, colorless
Odor	Pungent

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Odor threshold	Not available
pH	< 3
Melting/freezing point	-33°C (-27°F)
Boiling point	108°C (194°F)
Flash point	Not available
Evaporation rate	1
Flammability	Not available
Upper/lower flammability limits	Not available
Vapor pressure	17 hPa (25°C)
Vapor density	Similar to water
Relative density	1.13
Solubility	100% (water)
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Viscosity	Not available

10. STABILITY AND REACTIVITY

Reactivity: Reacts with copper, aluminum, zinc and their alloys.

Chemical Stability: Stable under recommended storage conditions. Contains stabilizing agent(s).

Possibility of Hazardous Reactions: Contamination from various metals or organic materials may cause rapid decomposition of the hydrogen peroxide, resulting in oxygen gas release and buildup if not properly vented.

Conditions to Avoid: Avoid elevated temperatures. Direct heating, dirt, chemical contamination, sunlight, UV or ionizing radiation.

Incompatible Materials: Organic solvents, powdered metal salts, metals, reducing agents, organic materials, dirt. Incompatible with bases. Decomposes by reaction with alkaline solutions.

Hazardous Decomposition Products: Hydrogen peroxide is a strong oxidant and exothermally decomposes to water and large amounts of oxygen.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Ingestion: Large exposure may be fatal. May be harmful if swallowed.

Inhalation: Inhalation of aerosols may cause irritation to mucous membranes. Inhalation of vapors in high concentration may cause shortness of breath (lung edema).

Skin Contact: Causes mild skin irritation.

Eye Contact: Causes serious eye irritation.

Symptoms Related to Physical, Chemical and Toxicological Characteristics: Not available.

Acute Toxicity Values:

Component	Route	Species	Value
Hydrogen Peroxide (CAS 7722-81-1)	Oral LD ₅₀	Rat	602 mg/kg

Skin Corrosion/Irritation: Causes irritation or burns.

Serious Eye Damage/Irritation: Causes serious eye irritation or damage.

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Respiratory or Skin Sensitization: Not available.

Germ Cell Mutagenicity: Not available.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive Toxicity: Not available.

Specific Target Organ Toxicity (STOT) – Single Exposure: Not available.

Specific Target Organ Toxicity (STOT) – Repeated Exposure: Not available.

Aspiration Hazard: Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Component	Species	Value	
Hydrogen Peroxide (CAS 7722-84-1)	Fathead minnow (<i>Pimephales promelas</i>)	16.4 mg/L	(LC ₅₀ -96 hr)
	Water flea (<i>Daphnia pulex</i>)	2.4 mg/L	(LC ₅₀ -48 hr)

Persistence/Degradability: The product is miscible in water and readily biodegradable in both water and soil.

Bioaccumulation: Accumulation is not expected.

Soil Mobility: The product is miscible in water and readily biodegradable in both water and soil.

Other Adverse Affects: Transport to air is not expected.

13. DISPOSAL CONSIDERATIONS

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container may need to be disposed of as hazardous waste. Do not allow this material to drain into sewers or water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents and container in accordance with local, regional, national and/or international regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

U.S. Department of Transportation (DOT)

UN/NA Number:	UN 2014
Proper Shipping Name:	Hydrogen peroxide, aqueous solution
Hazard Class:	5.1 (8)
Packing Group:	PG II
Marine Pollutant:	No
Labels Required:	Oxidizer, Corrosive
Reportable Quantity:	N/A

15. REGULATORY INFORMATION

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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Clean Air Act (CAA) Section 112 Hazardous Air Pollutants:

Hydrogen Peroxide (CAS 7722-84-1) – No

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention 40 CFR 68.130:

Hydrogen Peroxide (CAS 7722-84-1) – No

Clean Water Act (CWA) 40 CFR 401.15:

Hydrogen Peroxide (CAS 7722-84-1) – No

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 40 CFR 302.4:

Hydrogen Peroxide (CAS 7722-84-1) – No

SARA Section 302 Extremely Hazardous Substance 40 CFR 355:

Hydrogen Peroxide (CAS 7722-84-1) – Yes (> 52%)

SARA Section 311/312 40 CFR 370:

Hydrogen Peroxide (CAS 7722-84-1) – Yes

SARA Section 313 40 CFR 372:

Hydrogen Peroxide (CAS 7722-84-1) – No

Toxic Substances Control Act (TSCA):

Hydrogen Peroxide (CAS 7722-84-1) – Yes

Canadian Environmental Protection Act, Domestic Substance List (CEPA-DSL):

Hydrogen Peroxide (CAS 7722-84-1) – Yes

California Proposition 65:

Hydrogen Peroxide (CAS 7722-84-1) – No

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA):

Not applicable

16. OTHER INFORMATION

HMIS RATINGS

Health	2
Flammability	0
Reactivity	1

NFPA RATINGS

Health	2
Flammability	0
Reactivity	1

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