

Hydrogen Peroxide

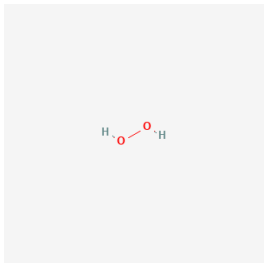
25% ACS Grade

ACS Grade · 25%

GHS Revision
Rev. 9 (2021)

Reviewed
2026-07-17

Emergency
Chemtel 1-800-255-3924 (24/7)

CAS number 7722-84-1	UN number UN2014	Hazard class · packing group 5.1 · PG II
 Structure · PubChem	Grade ACS Grade · 25%	Signal word Danger
Hazards Oxidizer Corrosive Irritant / harmful H272 H302 H314 H332 H335		
Proper shipping name Hydrogen peroxide, aqueous solutions with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary)		
Hydrogen Peroxide 25% ACS Grade is regulated for transport under DOT 49 CFR — see the shipping classification below.		

1 Identification

Product Identifier	Hydrogen Peroxide 25% ACS Grade
Grade	ACS Grade
Concentration	25%
CAS Number	7722-84-1
Chemical Formula	H ₂ O ₂
Manufacturer	Alliance Chemical 204 South Edmond Street, Taylor, TX 76574
Emergency Phone	Chemtel 1-800-255-3924 (24/7)
Recommended Use	Industrial / laboratory chemical. See Section 7.

2 Hazard Identification



Oxidizer



Corrosive



Irritant /
harmful

Signal Word	Danger
Hazard Statements	H272 May intensify fire; oxidiser H302 Harmful if swallowed H314 Causes severe skin burns and eye damage H332 Harmful if inhaled H335 May cause respiratory irritation
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. P260 Do not breathe dust, fume, gas, mist, vapours or spray. P261 Avoid breathing dust, fume, gas, mist, vapours or spray. P264 Wash hands and face thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves, protective clothing, and eye/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 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 or doctor.

P312 Call a POISON CENTER or doctor if you feel unwell.

P321 Specific treatment (see first-aid information on this label).

P330 Rinse mouth.

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use appropriate media to extinguish.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents and container in accordance with local, regional, national, and international regulations.

Hazard (H) and precautionary (P) statements and pictograms conform to GHS Rev. 9. The full classification rationale is in the downloadable SDS PDF.

3 Composition / Information on Ingredients

Component	CAS No.	Formula	Concentration
Hydrogen Peroxide 25% ACS Grade	7722-84-1	H ₂ O ₂	25% (w/w)

Concentrations are nominal; lot-specific values appear on the Certificate of Analysis. Components not contributing to classification are omitted.

4 First-Aid Measures

Eyes	Rinse with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention immediately.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash with soap. Get medical attention immediately.
Inhalation	Move person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

5 Fire-Fighting Measures

Suitable Extinguishing Media	Water spray or fog in large quantities. Do NOT use dry chemical or CO ₂ .
Unsuitable Extinguishing Media	Do not use dry chemical, CO ₂ , or foam.
Protective Equipment	Wear self-contained breathing apparatus and full protective clothing.
Hazardous Combustion Products	Oxygen, which may intensify fire.

6 Accidental Release Measures

Personal Precautions	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental Precautions	Prevent leakage or spillage from entering drains, sewers, or waterways.
Containment & Cleanup	Absorb with inert material. Collect in appropriate

waste container. Dispose per applicable regulations.

7 Handling and Storage

Safe Handling	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
Safe Storage	Store in a cool, dry, well-ventilated area away from combustible materials and heat. Keep away from incompatible materials (see Section 10). Keep containers tightly closed.

8 Exposure Controls / Personal Protection

Occupational Exposure Limits

Limit	Value
OSHA PEL	1 ppm TWA
NIOSH REL	1 ppm TWA
IDLH	75 ppm

Engineering Controls	Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.
Eye/Face Protection	Wear chemical safety goggles or face shield.
Skin Protection	Wear chemical-resistant gloves and protective clothing.
Respiratory Protection	Use a NIOSH-approved respirator (N95/P100 for particulate, organic vapor or acid gas cartridge as appropriate to the substance) when exposure limits may be exceeded or visible mist or dust is generated.

Exposure limits sourced from NIOSH Pocket Guide and OSHA 29 CFR 1910.1000. Hazard classification from ECHA Classification and Labelling Inventory (CLP Annex VI).

9 Physical & Chemical Properties

Appearance	Clear, colorless liquid
Odor	... Slightly sharp odor ...
Odor Threshold	No data available
pH	Weak acid; H ₂ O ₂ concn wt% = 35, 50, 70, 90; corresponding true pH: 4.6, 4.3, 4.4, 5.1
Melting Point / Freezing Point	-33 to -23 °C (-27 to -9 °F), freezing point (aqueous solution)
Boiling Point	104 to 108 °C (219 to 226 °F) (aqueous solution)
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper/Lower Flammability or Explosive Limits	No data available
Vapor Pressure	1 mmHg at 59.5 °F (NTP, 1992)
Vapor Density	No data available
Relative Density	1.084 - 1.094
Solubility	greater than or equal to 100 mg/mL at 72 °F (NTP, 1992)
Partition Coefficient (n-octanol/water)	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available

Viscosity	No data available
Particle Characteristics	Not applicable
Form	Liquid
Density	1.09 (25% w/w aqueous solution, 20 °C)

Values shown reflect product-specific canonical data. Lot-specific ranges may vary; see the Certificate of Analysis for the shipped lot.

10 Stability and Reactivity

Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing conditions.
Conditions to Avoid	Heat, sparks, open flame, and incompatible materials.
Incompatible Materials	Combustible materials, reducing agents, organic materials.
Hazardous Decomposition Products	Oxygen, which may intensify fire.

11 Toxicological Information

See Section 2 for GHS hazard classification.

Carcinogen Classification

Agency	Status
--------	--------

IARC	Group 3 — not classifiable as to its carcinogenicity to humans (Hydrogen peroxide; IARC agent: Hydrogen peroxide, Vol. 36, Sup 7, 71).
------	--

NTP	Not listed as carcinogen.
-----	---------------------------

OSHA	Not listed as carcinogen.
------	---------------------------

12 Ecological Information

Ecotoxicity	Data not available. Avoid release to the environment.
-------------	---

Persistence & Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available

13 Disposal Considerations

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

14 Transport Information

US DOT (49 CFR)

UN Number	UN2014
Proper Shipping Name	Hydrogen peroxide, aqueous solutions with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary)
Hazard Class	5.1
Subsidiary Hazard Class	8
Packing Group	II

IMDG / IATA classifications may differ. Refer to the downloadable SDS PDF for international transport details. Verify current regulations before international shipment.

15 Regulatory Information

Inventory / List	Status
California Proposition 65	Not listed
US EPA TSCA Active Inventory	Listed
EPCRA SARA 313 (TRI)	Not listed

16 Other Information

Revision Date	2026-07-17
GHS Format	GHS Rev. 9 (2021), 16-section format per OSHA HCS 2024 (29 CFR 1910.1200).

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge at the date of publication. It relates only to the specific product identified and does not relate to its use in combination with other materials. ALLIANCE CHEMICAL MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALLIANCE CHEMICAL DOES NOT ASSUME LIABILITY FOR LOSS, INJURY, DAMAGE, OR EXPENSE ARISING FROM THE HANDLING, STORAGE, USE, OR DISPOSAL OF THIS PRODUCT.

Alliance Chemical, 204 South Edmond Street, Taylor, TX 76574. Published by Alliance Chemical from first-party canonical product data. Our authority is hands-on chemical handling, DOT/GHS-compliant shipping, and government-registered distribution — not bench chemistry. This summary reflects canonical regulatory data on file; refer to the full SDS PDF for the complete regulatory record.