TECHNICAL DATA SHEET

Hydrogen Peroxide 30% ACS Grade

Revised: 08/03/2026

PRODUCT IDENTIFICATION

Product Name: Hydrogen Peroxide 30% ACS Grade
CAS Number: 7722-84-1
Molecular Formula: H_2O_2
Molecular Weight: 34.015 g/mol
Grade: ACS Grade
Purity / Concentration: 30%
Synonyms: Hydrogen Peroxide Solution, Peroxide 30%

PRODUCT OVERVIEW

Hydrogen Peroxide 30% ACS Grade is a high-purity, clear, and colorless oxidizing agent essential for precision laboratory and industrial applications. With an assay of 31.4% and trace metal impurities like calcium and chloride maintained at exceptionally low levels, this reagent ensures reliable performance in sensitive chemical processes.

Grade Significance: ACS Grade indicates that this product meets the strict specifications set by the American Chemical Society, ensuring the purity required for analytical work and high-stakes laboratory research.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Permanganate)	%	31.4	29	32	Permanganate Titration
Residue On Evaporation	ppm	5	0	20	Evaporation
Aluminum Al	ppm	0.0010	0	1	ICP-MS
Arsenic Antimony As As	ppm	0.0010	0	0.01	ICP-MS
Calcium Ca	ppm	0.01	0	1	ICP-MS
Cobalt Co	ppm	0.0010	0	0.5	ICP-MS
Copper	ppm	0.0010	0	0.1	ICP
Iron	ppm	0.01	0	0.5	ICP
Lead Pb	ppm	0.0010	0	0.5	ICP-MS
Magnesium Mg	ppm	0.0050	0	0.1	ICP-MS
Manganese	ppm	0.0010	0	1	ICP
Nickel Ni	ppm	0.0010	0	0.1	ICP-MS
Potassium K	ppm	0.01	0	1	ICP-MS
Sodium Na	ppm	0.01	0	1	ICP-MS
Zinc Zn	ppm	0.01	0	1	ICP-MS
Chloride Cl	ppm	1	0	2	ICP
Phosphate Po4	ppm	1	0	2	ICP
Sulfate So4	ppm	1	0	5	ICP
Barium Ba	ppm	0.0010	0	1	ICP-MS
Boron B	ppm	0.0050	0	0.5	ICP-MS
Cadmium Cd	ppm	0.0010	0	1	ICP-MS
Free Acid As H2So4	ueq/g	0.1	0	0.6	Titration
Silicon Si	ppm	0.01	0	1	ICP-MS
Silver Ag	ppm	0.0010	0	0.5	ICP-MS
Strontium Sr	ppm	0.0010	0	1	ICP-MS
Tin Sn	ppm	0.0010	0	1	ICP-MS

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	**Odor**	Slightly sharp, pungent odor
Form	Liquid	**Boiling Point**	Not characterized for the 30% solution
Melting / Freezing Point	Not characterized for the 30% solution	**Flash Point**	11°C (52°F)
Specific Gravity	1.11	**Solubility**	Soluble in water, miscible with many organic solvents
Molecular Formula	H_2O_2	**Molecular Weight**	34.015 g/mol
Vapor Pressure (20°C)	0.4 mmHg	**Viscosity (25°C)**	1.2 cP
Refractive Index (20°C)	1.406	**Density (25°C)**	1.11 g/mL

APPLICATIONS

1. **Analytical Chemistry** — Serves as a high-purity reagent for various assays, providing consistent results due to strict adherence to ACS specifications.
2. **Water Treatment** — Utilized as a powerful oxidant to effectively remove organic contaminants and improve water quality in specialized treatment systems.
3. **Textile Manufacturing** — Acts as a primary bleaching agent, ensuring consistent whitening and preparation of fibers without introducing unwanted metallic contaminants.
4. **Paper and Pulp** — Used in the bleaching process to achieve high brightness levels in paper products while maintaining rigorous quality control standards.
5. **Chemical Synthesis** — Functions as a versatile oxidizing agent in complex chemical reactions where precise concentration and purity are critical for yield.

STORAGE & HANDLING

Hydrogen Peroxide is a potent oxidizer that must be stored in its original, vented container in a cool, well-ventilated area away from combustible materials. Improper storage can lead to pressure buildup or dangerous reactions, as the material is classified as a severe skin and eye irritant.

- Store in a cool, dry place away from direct sunlight.
- Use containers made of HDPE or glass to prevent reactions.
- Avoid contact with organic materials and reducing agents.
- Handle with appropriate personal protective equipment (PPE) including gloves and goggles.
- Ensure adequate ventilation when handling to avoid inhalation of vapors.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

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

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | www.alliancechemical.com