

PRODUCT IDENTIFICATION

**Product Name:** Hydrogen Peroxide 15% ACS Grade**CAS Number:** 7722-84-1**Molecular Formula:** H_2O_2 **Molecular Weight:** 34.015 g/mol**Grade:** ACS Grade**Purity / Concentration:** 15%**Synonyms:** Hydrogen Peroxide Solution, H_2O_2 15%

PRODUCT OVERVIEW

Alliance Chemical offers high-purity 15% Hydrogen Peroxide in ACS Grade, ensuring consistent performance for critical laboratory and industrial applications. With an assay of 15.7% and strictly controlled trace metal limits, this clear, colorless liquid serves as a reliable, powerful oxidizing agent for sensitive chemical processes.

Grade Significance: ACS Grade indicates that this product meets the rigorous purity standards set by the American Chemical Society, ensuring it is suitable for demanding laboratory use and high-precision analytical work.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Permanganate)	%	15.7	14.5	16	Permanganate Titration
Residue On Evaporation	ppm	10	0	20	Evaporation
Aluminum Al	ppm	0.5	0	1	ICP-MS
Arsenic Antimony As As	ppm	0.0050	0	0.01	ICP-MS
Calcium Ca	ppm	0.5	0	1	ICP-MS
Cobalt Co	ppm	0.25	0	0.5	ICP-MS
Copper	ppm	0.05	0	0.1	ICP
Iron	ppm	0.25	0	0.5	ICP
Lead Pb	ppm	0.25	0	0.5	ICP-MS
Magnesium Mg	ppm	0.05	0	0.1	ICP-MS
Manganese	ppm	0.5	0	1	ICP
Nickel Ni	ppm	0.05	0	0.1	ICP-MS
Potassium K	ppm	0.5	0	1	ICP-MS
Sodium Na	ppm	0.5	0	1	ICP-MS
Zinc Zn	ppm	0.5	0	1	ICP-MS
Chloride Cl	ppm	1	0	2	ICP
Phosphate Po4	ppm	1	0	2	ICP
Sulfate So4	ppm	3	0	5	ICP
Barium Ba	ppm	0.5	0	1	ICP-MS
Boron B	ppm	0.25	0	0.5	ICP-MS
Cadmium Cd	ppm	0.5	0	1	ICP-MS
Free Acid As H2So4	ueq/g	0.1	0	0.6	Titration
Silicon Si	ppm	0.5	0	1	ICP-MS
Silver Ag	ppm	0.25	0	0.5	ICP-MS
Strontium Sr	ppm	0.5	0	1	ICP-MS
Tin Sn	ppm	0.5	0	1	ICP-MS

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Colorless, clear liquid	Odor	Slightly sharp, pungent odor
Form	Liquid	Boiling Point	Not characterized for the 15% solution
Melting / Freezing Point	Not characterized for the 15% solution	Specific Gravity	1.05
Solubility	Soluble in water	Molecular Formula	H ₂ O ₂
Molecular Weight	34.015 g/mol	Vapor Pressure (20°C)	0.5 mmHg
Viscosity (25°C)	1.12 cP	Refractive Index (20°C)	1.406
Density (25°C)	1.11 g/mL		

APPLICATIONS

1. **Analytical Chemistry** — Utilized as a high-purity reagent in complex titrations and precise analytical procedures where low trace metal content is required.
2. **Textile Manufacturing** — Functions as an effective bleaching agent for fibers, providing controlled oxidation to achieve desired whiteness without damaging fabric integrity.
3. **Pulp and Paper** — Applied in the bleaching process to remove lignin and other impurities, resulting in high-quality paper products with superior brightness.
4. **Wastewater Treatment** — Acts as a potent oxidant to neutralize contaminants and reduce chemical oxygen demand in industrial effluent streams.
5. **Chemical Synthesis** — Serves as a fundamental oxidizing agent in various organic and inorganic synthesis reactions requiring specific concentration standards.

STORAGE & HANDLING

Proper storage is critical because Hydrogen Peroxide is a strong oxidizer that can intensify fires and pose severe health risks if mishandled. It must be kept in a cool, ventilated area away from incompatible substances and heat sources to prevent decomposition and maintain product stability.

- 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.
- Ensure proper ventilation in storage areas to minimize vapor accumulation.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles.

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
- H318: Causes serious eye damage

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.

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