

PRODUCT IDENTIFICATION



Product Name: Hydrogen Peroxide 30% Technical

CAS Number: 7722-84-1

Molecular Formula: H_2O_2

Molecular Weight: 34.015 g/mol

Grade: Technical Grade

Purity / Concentration: 30%

Synonyms: H_2O_2 30%, Peroxide Solution 30%

PRODUCT OVERVIEW

Hydrogen Peroxide 30% Technical is a high-purity oxidizing agent characterized by a 30.34% assay and extremely low trace metal content, such as iron levels at 0.0005 ppm. This clear, colorless liquid is engineered for industrial applications requiring reliable oxidation potential in chemical synthesis and water treatment processes.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and commercial use where consistent, reliable performance is required, though it is not intended for food, drug, or medical applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Permanganate)	%	30.34	29	31	Permanganate Titration
Residue On Evaporation	ppm	17	0	50	Evaporation
Aluminum Al	ppm	0.015	0	0.05	ICP-MS
Arsenic Antimony As As	ppm	0.0030	0	0.01	ICP-MS
Calcium Ca	ppm	0.3	0	1	ICP-MS
Iron	ppm	0.0005	0	0.0010	ICP
Lead Pb	ppm	0.015	0	0.05	ICP-MS
Magnesium Mg	ppm	0.03	0	0.1	ICP-MS
Manganese	ppm	0.0030	0	0.01	ICP
Nickel Ni	ppm	0.015	0	0.05	ICP-MS
Potassium K	ppm	0.3	0	1	ICP-MS
Sodium Na	ppm	0.3	0	1	ICP-MS
Zinc Zn	ppm	0.03	0	0.1	ICP-MS
Chloride Cl	ppm	15	0	50	ICP
Phosphate Po_4	%	0.015	0	0.05	ICP
Sulfate So_4	%	0.0090	0	0.03	ICP
Boron B	ppm	0.03	0	0.1	ICP-MS
Silicon Si	ppm	0.03	0	0.1	ICP-MS
Tin Sn	ppm	0.03	0	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	Specific Gravity	1.11
Solubility	Soluble in water, slightly soluble in organic solvents	Molecular Formula	H ₂ O ₂
Molecular Weight	34.015 g/mol	Vapor Pressure (20°C)	5 mmHg
Viscosity (25°C)	1.2 cP	Refractive Index (20°C)	1.406
Density (25°C)	1.11 g/mL		

APPLICATIONS

1. **Chemical Manufacturing** — Serves as a powerful oxidizing agent in various synthetic procedures and chemical reaction pathways.
2. **Textile Industry** — Utilized as a high-performance bleaching agent to achieve desired whiteness in natural and synthetic fibers.
3. **Pulp and Paper** — Functions as a critical bleaching and delignification chemical to produce high-quality paper products.
4. **Water Treatment** — Applied to effectively oxidize and remove organic contaminants and pollutants from industrial water streams.
5. **Analytical Laboratories** — Acts as a precision reagent for various analytical procedures requiring controlled oxidation.

STORAGE & HANDLING

Proper storage is critical because this product is a strong oxidizer that can intensify fires and cause severe chemical burns. It must be stored in a cool, ventilated area in its original vented container to prevent pressure buildup from natural decomposition, ensuring both safety and product longevity.

- Store in a cool, dry place away from direct sunlight and heat sources.
- Use containers made of HDPE or glass to prevent reactions with metals.
- Avoid contact with organic materials and reducing agents to prevent violent reactions.
- Ensure proper ventilation when handling to minimize inhalation exposure.
- 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
- 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.

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