

PRODUCT IDENTIFICATION



Product Name: Hydrogen Peroxide 6% Technical Grade

CAS Number: 7722-84-1

Molecular Formula: H_2O_2

Molecular Weight: 34.015 g/mol

Grade: Technical Grade

Purity / Concentration: 6%

Synonyms: Hydrogen Dioxide, Peroxide Solution

PRODUCT OVERVIEW

Hydrogen Peroxide 6% Technical Grade is a versatile, transparent oxidizing agent formulated for industrial and analytical utility. With a precise assay of 6.07% and exceptionally low trace metal concentrations, such as Iron at 0.0005 ppm, this solution provides reliable performance for demanding chemical processes.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and manufacturing applications where performance consistency is prioritized over the stringent requirements of pharmaceutical or food-grade standards.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Permanganate)	%	6.07	5.5	6.5	Permanganate Titration
Residue On Evaporation	ppm	3	0	50	Evaporation
Aluminum Al	ppm	0.0030	0	0.01	ICP-MS
Arsenic Antimony As As	ppm	0.0006	0	0.0020	ICP-MS
Calcium Ca	ppm	0.06	0	0.2	ICP-MS
Iron	ppm	0.0005	0	0.0010	ICP
Lead Pb	ppm	0.0030	0	0.01	ICP-MS
Magnesium Mg	ppm	0.0060	0	0.02	ICP-MS
Manganese	ppm	0.0010	0	0.0020	ICP
Nickel Ni	ppm	0.0030	0	0.01	ICP-MS
Potassium K	ppm	0.06	0	0.2	ICP-MS
Sodium Na	ppm	0.06	0	0.2	ICP-MS
Zinc Zn	ppm	0.0060	0	0.02	ICP-MS
Chloride Cl	ppm	3	0	10	ICP
Phosphate Po4	%	0.0030	0	0.01	ICP
Sulfate So4	ppm	18	0	60	ICP
Boron B	ppm	0.0060	0	0.02	ICP-MS
Silicon Si	ppm	0.0060	0	0.02	ICP-MS
Tin Sn	ppm	0.0060	0	0.02	ICP-MS

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Transparent, pale blue liquid	Odor	Slightly sharp, pungent odor
Form	Liquid	Boiling Point	Not characterized for the 6% solution
Melting / Freezing Point	Not characterized for the 6% solution	Specific Gravity	1.02
Solubility	Fully miscible with water	Molecular Formula	H ₂ O ₂
Molecular Weight	34.015 g/mol	Vapor Pressure (20°C)	0.23 mmHg
Viscosity (25°C)	1.12 cP	Refractive Index (20°C)	1.406
Density (25°C)	1.010 g/mL		

APPLICATIONS

- 1. Water Treatment** — Utilized as an effective oxidizing agent to neutralize contaminants and improve water quality in industrial treatment systems.
- 2. Textile Manufacturing** — Functions as a controlled bleaching agent to whiten fabrics and prepare fibers for uniform dyeing processes.
- 3. Pulp and Paper** — Applied during the pulping process to bleach wood pulp, resulting in high-quality paper products without harsh chlorine-based chemicals.
- 4. Analytical Chemistry** — Serves as a high-purity reagent for laboratory analysis and various chemical synthesis reactions requiring controlled oxidation.

STORAGE & HANDLING

Proper storage is critical to prevent decomposition and maintain product stability, as Hydrogen Peroxide is sensitive to contaminants and temperature fluctuations. Because the product causes serious eye irritation, it must be stored in a cool, well-ventilated area in its original vented container to safely manage pressure buildup.

- 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.
- Use personal protective equipment (PPE) such as gloves and goggles when handling.

AVAILABLE PACKAGING

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

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: Warning



Hazard Statements:

- H319: Causes serious eye 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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