

PRODUCT IDENTIFICATION



Product Name: Hydrogen Peroxide 15% Technical Grade

CAS Number: 7722-84-1

Molecular Formula: H_2O_2

Molecular Weight: 34.015 g/mol

Grade: Technical Grade

Purity / Concentration: 15%

Synonyms: H2O2 15%, Hydrogen Peroxide Solution 15%

PRODUCT OVERVIEW

Hydrogen Peroxide 15% Technical Grade is a powerful, clear, and colorless oxidizing agent essential for a variety of industrial chemical processes. With a verified assay of 15.17% and strictly controlled trace metal impurities, such as iron at 0.0005 ppm, this solution provides consistent reactivity and reliability for your production needs.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and manufacturing applications where consistent chemical performance is required, rather than for food or pharmaceutical use.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Permanganate)	%	15.17	14.5	15.5	Permanganate Titration
Residue On Evaporation	ppm	9	0	50	Evaporation
Aluminum Al	ppm	0.0075	0	0.025	ICP-MS
Arsenic Antimony As As	ppm	0.0015	0	0.0050	ICP-MS
Calcium Ca	ppm	0.15	0	0.5	ICP-MS
Iron	ppm	0.0005	0	0.0010	ICP
Lead Pb	ppm	0.0075	0	0.025	ICP-MS
Magnesium Mg	ppm	0.015	0	0.05	ICP-MS
Manganese	ppm	0.0020	0	0.0050	ICP
Nickel Ni	ppm	0.0075	0	0.025	ICP-MS
Potassium K	ppm	0.15	0	0.5	ICP-MS
Sodium Na	ppm	0.15	0	0.5	ICP-MS
Zinc Zn	ppm	0.015	0	0.05	ICP-MS
Chloride Cl	ppm	8	0	25	ICP
Phosphate Po4	%	0.0075	0	0.025	ICP
Sulfate So4	%	0.0045	0	0.015	ICP
Boron B	ppm	0.015	0	0.05	ICP-MS
Silicon Si	ppm	0.015	0	0.05	ICP-MS
Tin Sn	ppm	0.015	0	0.05	ICP-MS

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Slightly sharp, acrid 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	Miscible with water, soluble in many organic solvents	Molecular Formula	H ₂ O ₂
Molecular Weight	34.015 g/mol	Vapor Pressure (20°C)	0.23 mmHg
Viscosity (25°C)	1.2 cP	Refractive Index (20°C)	1.406
Density (25°C)	1.11 g/mL	Partition Coefficient (log P)	-0.7
Decomposition Temp.	Not applicable at standard conditions		

APPLICATIONS

1. **Textile Manufacturing** — Utilized as a high-efficiency bleaching agent to achieve desired fabric brightness and color consistency during processing.
2. **Water Treatment** — Acts as an effective oxidizing agent to break down organic contaminants and pollutants in industrial water systems.
3. **Chemical Synthesis** — Serves as a versatile reagent in the synthesis of complex organic compounds, facilitating precise oxidation reactions.
4. **Industrial Cleaning** — Provides strong oxidative properties for specialized surface preparation and equipment decontamination protocols.

STORAGE & HANDLING

Proper storage is critical because hydrogen peroxide is a strong oxidizer that can intensify fires if exposed to incompatible materials or heat. Maintaining the product in a cool, well-ventilated area is essential to prevent decomposition and ensure the safety of your facility.

- 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 when handling to minimize inhalation risks.
- 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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