

### PRODUCT IDENTIFICATION



**Product Name:** Hydrogen Peroxide 15% Technical Grade

**CAS Number:** 7722-84-1

**Molecular Formula:** H<sub>2</sub>O<sub>2</sub>

**Molecular Weight:** 34.015 g/mol

**Grade:** Technical Grade

**Purity / Concentration:** 15%

**Synonyms:** H<sub>2</sub>O<sub>2</sub> 15%, Hydrogen Peroxide Solution 15%

### PRODUCT OVERVIEW

Hydrogen Peroxide 15% Technical Grade is a versatile, high-purity oxidizing agent ideal for industrial manufacturing and processing applications. Featuring an assay of 15.3% and exceptional clarity at 5 APHA, this solution is engineered for consistent performance in chemical synthesis and water treatment.

**Grade Significance:** Technical Grade indicates that this product is formulated for industrial and manufacturing utility where performance and chemical reliability are prioritized over food or pharmaceutical standards.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	15.3	14.5	16	Titration with Potassium Permanganate
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	1.065	1.06	1.07	USP <841>
Residue After Ignition	%	0.0050	—	0.02	Gravimetric
Iron (Fe)	ppm	0.1	—	1	ICP-OES
Chloride (Cl <sup>-</sup> )	ppm	0.2	—	2	Ion Chromatography
Phosphate (PO <sub>4</sub> <sup>3-</sup> )	ppm	ND	—	2	Spectrophotometry
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	ppm	1	—	5	Ion Chromatography
Acidity As H <sub>2</sub> SO <sub>4</sub>	ppm	150.0	—	500.0	Titration with NaOH

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

## PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Clear, colorless liquid	<b>Odor</b>	Slightly sharp, acrid odor
<b>Form</b>	Liquid	<b>Boiling Point</b>	150°C (302°F)
<b>Melting / Freezing Point</b>	-0.43°C (31.2°F)	<b>Specific Gravity</b>	1.04
<b>Solubility</b>	Miscible with water, soluble in many organic solvents	<b>Molecular Formula</b>	H <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight</b>	34.015 g/mol	<b>Vapor Pressure (20°C)</b>	0.23 mmHg
<b>Viscosity (25°C)</b>	1.2 cP	<b>Refractive Index (20°C)</b>	1.406
<b>Density (25°C)</b>	1.11 g/mL	<b>Partition Coefficient (log P)</b>	-0.7
<b>Decomposition Temp.</b>	Not applicable at standard conditions		

## APPLICATIONS

- Textile Manufacturing** — Utilized as an effective bleaching agent to brighten fabrics and prepare fibers for uniform dyeing.
- Water Treatment** — Acts as a powerful oxidant to neutralize contaminants and improve the quality of industrial process water.
- Chemical Synthesis** — Serves as a reliable reagent in the production of various organic compounds, facilitating precise chemical reactions.
- Industrial Cleaning** — Employed in heavy-duty cleaning formulations where strong oxidation is required to break down organic buildup.

## STORAGE & HANDLING

As a strong oxidizer, Hydrogen Peroxide 15% must be stored in a cool, well-ventilated area away from incompatible organic materials to prevent fire or explosion risks. Proper containment is essential to prevent severe skin burns and eye damage, ensuring the safety of your facility and personnel.

- 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:

- H271: May cause fire or explosion; strong Oxidizer [Danger Oxidizing liquids; Oxidizing solids]
- H302: Harmful if swallowed [Warning Acute toxicity, oral]
- H314: Causes severe skin burns and eye damage [Danger Skin corrosion/irritation]
- H332: Harmful if inhaled [Warning Acute toxicity, inhalation]

**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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