

PRODUCT IDENTIFICATION



Product Name: Hydrogen Peroxide 10% Technical Grade

CAS Number: 7722-84-1

Molecular Formula: H₂O₂

Molecular Weight: 34.015 g/mol

Grade: Technical Grade

Purity / Concentration: 10%

Synonyms: H₂O₂ 10%, Hydrogen Dioxide 10%

PRODUCT OVERVIEW

Alliance Chemical offers high-quality Hydrogen Peroxide 10% Technical Grade, a clear and colorless liquid ideal for various industrial oxidation processes. With a precise assay of 10.1% and minimal impurity levels, such as heavy metals below 0.1 ppm, this product ensures consistent performance for your specific chemical requirements.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and commercial use where efficiency and cost-effectiveness are prioritized over pharmaceutical or food-grade purity standards.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	10.1	9.5	10.5	Titration with KMnO ₄
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	1.035	—	—	ASTM D4052
Residue After Ignition	%	0.0020	—	0.02	Gravimetric
Heavy Metals (as Pb)	ppm	0.1	—	1	ICP-OES
Iron (Fe)	ppm	0.05	—	0.5	ICP-OES
Chloride (Cl ⁻)	ppm	0.1	—	1	Ion Chromatography
Sulfate (SO ₄ ²⁻)	ppm	0.2	—	5	Ion Chromatography
Acidity As H ₂ SO ₄	%	0.01	—	0.03	Titration with NaOH

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	150°C (302°F)
Melting / Freezing Point	-0.43°C (31.2°F)	Specific Gravity	1.03
Solubility	Soluble in 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)	1.01 g/mL	Partition Coefficient (log P)	-0.3 to -0.1
Decomposition Temp.	Decomposes slowly at elevated temperatures; stable at room temperature		

APPLICATIONS

- 1. Textile Manufacturing** — Used as a reliable bleaching agent to brighten fabrics and prepare fibers for dyeing.
- 2. Water Treatment** — Employed to effectively remove organic and inorganic contaminants from water supplies through oxidation.
- 3. Chemical Processing** — Serves as a versatile reagent in a variety of industrial oxidation reactions and synthesis applications.
- 4. Analytical Chemistry** — Utilized as a high-purity reagent for laboratory testing and quantitative analysis procedures.

STORAGE & HANDLING

Because Hydrogen Peroxide 10% is a strong oxidizer, it must be stored in a cool, well-ventilated area away from combustible materials and incompatible chemicals 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 avoid inhalation of vapors.
- 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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