TECHNICAL DATA SHEET

Sulfuric Acid 30%

Revised: 04/27/2026

PRODUCT IDENTIFICATION

Product Name: Sulfuric Acid 30%
CAS Number: 7664-93-9
Molecular Formula: H_2O_4S
Molecular Weight: 98.08 g/mol
Grade: Technical
Purity / Concentration: 30%
Synonyms: Dilute Sulfuric Acid, Sulfuric Acid Solution

PRODUCT OVERVIEW

Alliance Chemical offers high-quality Technical grade Sulfuric Acid 30%, a reliable solution for industrial chemical processes. This transparent liquid maintains a precise concentration of 30.5% and low impurity levels, including iron at 0.1 ppm, making it a dependable reactant for diverse applications.

Grade Significance: Technical grade indicates that the product is manufactured to meet industrial performance standards, offering an economical and reliable solution for general manufacturing and processing needs.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	30.5	29	31	Titration with NaOH
Color (APHA)	APHA	10	—	20	ASTM D1209
Specific Gravity (20°C)	g/mL	1.22	1.21	1.23	Hydrometer
Residue After Ignition	%	0.0010	—	0.0050	Gravimetric
Heavy Metals (as Pb)	ppm	0.05	—	1	ICP-OES
Iron (Fe)	ppm	0.1	—	5	ICP-OES
Chloride (Cl^-)	ppm	0.2	—	5	Ion Chromatography
Sulfate (SO_4^{2-})	ppm	1	—	10	Turbidimetry

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Transparent, pale liquid	**Odor**	Odorless
Form	Liquid solution	**Boiling Point**	338°C (640°F)
Melting / Freezing Point	10°C (50°F)	**Flash Point**	Non-flammable
Specific Gravity	1.218	**Solubility**	Fully miscible with water, polar organic solvents
Molecular Formula	H_2O_4S	**Molecular Weight**	98.08 g/mol
Vapor Pressure (20°C)	0.3 mmHg	**Viscosity (25°C)**	1.0 cP
Refractive Index (20°C)	1.400	**Density (25°C)**	1.06 g/mL

APPLICATIONS

1. **Water Treatment** — Used to effectively lower pH levels in water treatment systems to ensure compliance with strict environmental regulations.
2. **Chemical Manufacturing** — Serves as a fundamental reactant in the large-scale production of fertilizers and various specialty chemicals.
3. **Laboratory Research** — Utilized in controlled laboratory settings for dehydration reactions due to the acid's strong affinity for water.
4. **Energy Storage** — Acts as a critical electrolyte in lead-acid batteries, facilitating the essential electrochemical reactions for power storage.

STORAGE & HANDLING

Proper storage is critical because Sulfuric Acid is highly corrosive and causes severe skin burns and eye damage. Containers must be kept in a cool, well-ventilated area to prevent degradation and to contain potential spills or hazardous fumes.

- Store in a cool, dry, well-ventilated area away from incompatible substances.
- Use materials compatible with sulfuric acid, such as HDPE or glass containers.
- Avoid contact with strong bases and organic materials to prevent violent reactions.
- Ensure proper personal protective equipment (PPE) is worn, including gloves and eye protection.
- Keep containers tightly closed when not in use to prevent moisture absorption.

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:

- H314: Causes severe skin burns and eye damage [Danger Skin corrosion/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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