

PRODUCT IDENTIFICATION

**Product Name:** Sulfuric Acid 30%**CAS Number:** 7664-93-9**Molecular Formula:** $\text{H}_2\text{O}_4\text{S}$ **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 (Titration)	%	30	29	31	Titration
Color (APHA/Hazen)	APHA	5	0	10	Spectrophotometry
Specific Gravity (20°C)	g/mL	1.2677	1.214	1.3311	Hydrometer @ 25°C
Non-Volatile Residue	%	0.0030	—	0.01	Residue on Ignition
Arsenic Antimony As As	ppm	0.0009	—	0.0030	ICP-MS
Heavy Metals As Pb	ppm	0.15	0	0.5	ICP-MS (as Pb)
Iron (Fe)	ppm	0.018	0	0.06	ICP-MS
Chloride Cl	ppm	0.018	0	0.06	ICP
Nitrate No3	ppm	0.048	0	0.16	ICP
Mercury Hg	ppm	0.468	—	1.56	ICP-MS
Sulfite So3	ppm	2	0	3	ICP
Turbidity	NTU	0.3	0	1	EPA 180.1

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	Not characterized for the 30% solution
Melting / Freezing Point	Not characterized for the 30% solution	Flash Point	Non-flammable
Specific Gravity	1.22	Solubility	Fully miscible with water, polar organic solvents
Molecular Formula	H ₂ O ₄ S	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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