

PRODUCT IDENTIFICATION

**Product Name:** Sulfuric Acid 30% Technical Grade**CAS Number:** 7664-93-9**Molecular Formula:** $\text{H}_2\text{O}_4\text{S}$ **Molecular Weight:** 98.08 g/mol**Grade:** Technical Grade**Purity / Concentration:** 30%**Synonyms:** Dilute Sulfuric Acid, Sulfuric Acid Solution

PRODUCT OVERVIEW

Our 30% Technical Grade Sulfuric Acid is a high-purity, transparent liquid solution characterized by a specific gravity of 1.219 g/mL. It is widely utilized across industrial and laboratory sectors for its effective pH regulation and strong chemical reactivity.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and commercial utility, balancing cost-effectiveness with the necessary chemical consistency required for large-scale applications.

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	1.219	1.217	1.221	Hydrometer @ 20°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 precisely lower pH levels in water treatment systems, ensuring that effluent meets strict environmental discharge regulations.
- 2. Chemical Manufacturing** — Serves as a critical reactant in the synthesis of various industrial chemicals, including essential components for fertilizers and specialty products.
- 3. Laboratory Research** — Utilized in controlled laboratory environments to facilitate dehydration reactions due to the acid's high affinity for water.
- 4. Energy Storage** — Acts as a primary electrolyte in lead-acid batteries, enabling the essential electrochemical reactions required for efficient power storage.

STORAGE & HANDLING

Due to its corrosive nature, this acid must be stored in specialized, compatible containers to prevent structural failure or leaks. Proper containment is essential to mitigate severe skin and eye hazards and to ensure long-term stability of the solution.

- 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:

- H290: May be corrosive to metals
- H314: Causes severe skin burns and eye damage
- H350: May cause cancer

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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