



# Technical Data Sheet (TDS)

Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>)

## 1. Product Identification

- **Product Name:** Sulfuric Acid
- **Chemical Name:** Sulfuric Acid
- **Chemical Formula:** H<sub>2</sub>SO<sub>4</sub>
- **CAS Number:** 7664-93-9
- **UN Number:** UN1830 (Concentrated)
- **Supplier:** ATDM

## 2. Product Description

Sulfuric Acid is a **strong mineral acid** widely used in industrial processes. It is a dense, oily liquid with strong dehydrating and oxidizing properties, making it essential in chemical manufacturing and processing industries.

## 3. Typical Specifications

Parameter	Specification
Appearance	Clear, colorless to slightly yellow liquid
Purity (H <sub>2</sub> SO <sub>4</sub> )	96 – 98%
Density (at 20°C)	1.83 – 1.84 g/cm <sup>3</sup>
Free SO <sub>3</sub>	≤ 0.5%
Iron (Fe)	≤ 50 ppm
Residue on Ignition	≤ 0.1%

*Note: Values are typical and may vary slightly depending on grade.*



## 4. Physical and Chemical Properties

- **Molecular Weight:** 98.08 g/mol
- **Boiling Point:** ~337°C
- **Melting Point:** ~10°C
- **Solubility:** Completely miscible with water (exothermic reaction)
- **Odor:** Odorless
- **Viscosity:** High (oily consistency)

## 5. Applications

- **Fertilizer Industry:** Production of phosphates and ammonium sulfate
- **Chemical Manufacturing:** Raw material for numerous chemicals
- **Petroleum Refining:** Alkylation processes
- **Metal Processing:** Pickling and cleaning of metals
- **Battery Industry:** Electrolyte in lead-acid batteries
- **Water Treatment:** pH control and neutralization

## 6. Handling & Storage

- Store in **acid-resistant containers** (e.g., stainless steel, HDPE)
- Keep in a **cool, dry, and well-ventilated area**
- Always add acid to water, never water to acid
- Protect from moisture and incompatible materials

## 7. Packaging

- HDPE drums
- IBC containers
- Bulk tanker delivery

## 8. Safety Information

- Classified as **highly corrosive**
- Causes severe burns to skin and eyes
- Reacts violently with water and organic materials
- Use appropriate **PPE:** acid-resistant gloves, face shield, protective clothing
- Refer to the Safety Data Sheet (SDS) for full safety guidance

## 9. Quality & Compliance

- Manufactured under industrial quality standards
- Available in various grades (industrial, battery, reagent)



- Compliance depends on regional regulations (e.g., EU REACH)

## **10. Disclaimer**

The information provided in this Technical Data Sheet is based on current knowledge and is intended as a general guide. It does not constitute a guarantee of specific product properties. Users should verify suitability for their intended application.