Technical Data Sheet (TDS)

Sulfuric Acid (H_2SO_4)
Supplier: ATDM

1. Product Description

Sulfuric Acid is a strong mineral acid widely used in industrial and laboratory applications. It is a highly corrosive, dense, oily liquid with strong dehydrating and oxidizing properties. This product is typically supplied in concentrated form for use in chemical manufacturing, metal processing, fertilizers, batteries, and water treatment.

2. Product Specifications

Property	Typical Value
Chemical Name	Sulfuric Acid
Chemical Formula	H_2SO_4
Molecular Weight	98.08 g/mol
Concentration	95–98%
Appearance	Clear, colorless to slightly yellow liquid
Odor	Odorless
Density (at 20°C)	~1.84 g/cm³
Boiling Point	~337°C
Melting Point	~10°C
Vapor Pressure	< 0.01 mmHg (20°C)
Solubility in Water	Completely miscible (exothermic)
pH (1% solution)	< 1
Viscosity	~26.7 cP (20°C)

No.3509 THE BURLINGTON TOWER, BUSINESS BAY
Tell: 0097142369830

3. Typical Applications

- Fertilizer production (phosphates, ammonium sulfate)
- Lead-acid batteries
- Chemical synthesis and processing
- Petroleum refining
- Metal pickling and surface treatment
- Wastewater treatment
- Laboratory reagent

4. Performance Characteristics

- Strong acid with high proton-donating capacity
- Excellent dehydrating agent
- High reactivity with water and bases
- Effective catalyst in many chemical reactions
- High thermal stability under controlled conditions

5. Handling Guidelines

- Use corrosion-resistant equipment
- Always add acid to water during dilution
- Avoid contact with incompatible materials such as bases and metals
- Use in well-ventilated areas or under fume hood

6. Storage Recommendations

- Store in tightly sealed, acid-resistant containers (e.g., HDPE, glass-lined steel)
- Keep in a cool, dry, well-ventilated area
- Protect from moisture and direct sunlight
- Segregate from incompatible substances

7. Packaging Options

- Bulk tankers
- Intermediate Bulk Containers (IBCs)
- Drums (plastic or lined steel)
- Small laboratory bottles

8. Quality and Compliance

- Manufactured in accordance with industry standards
- Meets typical industrial and laboratory-grade specifications
- Compliance with applicable regulatory requirements (e.g., REACH, ISO standards where applicable)

9. Safety Information

Refer to the Material Safety Data Sheet (MSDS) for detailed safety, handling, and emergency information.

10. Disclaimer

The information provided in this Technical Data Sheet is based on current knowledge and is intended as a guide for product use. It does not constitute a guarantee of specific properties. Users are responsible for determining suitability for their application and ensuring safe handling practices.