



Technical Bulletin - KPM-107

Safe Use and Handling of Sulfuric Acid (ETP) - H₂SO₄

CAS Number: **7664-93-9**

Packing Group: **II**

Hazard Classification: **8**

About Us

Kredence Electronics Materials India Pvt. Ltd has been providing high quality, Photovoltaic and Electronic grade chemicals to their customers throughout India and internationally since 2015. We at Kredence are committed to customer satisfaction achieved by clearly understanding the customers' needs and fulfilling those requirements through continual improvement of products, services, and the quality management system. In addition to that, **our company values the safety and well-being of our employees, customers, community, and the environment surrounding us. Our highly trained and experienced staff uses specialized equipment and technology to certify our customers receive quality service. Kredence Electronics Materials performs routine sample analysis to ensure grade specification requirements are met.**

Purpose

When working with hazardous materials on a day-to-day basis, it is important to be aware of the chemicals' properties, risks, and safety precautions that need to be followed. This Technical Bulletin serves the purpose to educate our customers and employees about the chemical nature, safety, and provisions associated with Sulfuric acid (H₂SO₄).

Sulfuric acid 98% PV Grade is currently provided by Kredence Electronics Materials India Pvt. Ltd. (Other concentrations/ specifications can be available)

Product Overview

Sulfuric acid (H₂SO₄) is a highly corrosive, colorless, oily liquid with a strong acidic nature, that is miscible with water and known for its high reactivity and dehydrating properties, making it a crucial industrial reagent. It reacts violently with alcohol and water to release heat. It is considered a key industrial chemical primarily used in fertilizer production, battery manufacturing, metal processing, and various chemical synthesis processes. Concentrated sulfuric acid is a strong oxidant with powerful dehydrating properties, making it highly corrosive towards other materials, from rocks to metals. Sulfuric acid (H₂SO₄) is a highly corrosive and toxic substance that can cause severe burns, irritation, and damage to the respiratory system, eyes, and skin upon contact or inhalation. Refer to [OSHA](#) for exposure limit guidelines.

Safety

- Wear protective gloves/protective clothing/eye protection/face protection.
- Keep away from heat/fire.
- Keep / Store away from combustible materials.



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- Take precautions to avoid mixing with combustibles.
 - Do not breathe fume/ mist.
 - Wash thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Use only outdoors or in a well-ventilated area.
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Handling

- Wear PPE when handling.
 - Use appropriate containers made of materials resistant to sulfuric acid (e.g., glass, polyethylene, Teflon).
 - Never add water to concentrated sulfuric acid; instead, slowly add the acid to a large volume of cold water while stirring constantly.
 - Avoid mixing sulfuric acid with incompatible chemicals, such as strong bases, oxidizers, or organic materials.
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Storage

- Should be kept in cool areas out of direct sunlight
 - ONLY store in compatible containers
 - Keep away from combustible material
 - Ventilation of any kind should be available to prevent release of vapor or mist into surroundings
 - Storage containers should be vented
 - Refer to Figure 1 on Page 3 for appropriate use of storage containers
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Transport

- Containers are not to be stacked during transit and should be kept upright
 - Storage containers should be vented; therefore, air transport is restricted!
 - Properly use forklift and trolleys.
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***If exposed to Sulfuric Acid, immediately follow First-Aid procedures as stated in MSDS.**

***Contact with metals, metallic ions, alkalis, reducing agents and organic matter may cause self-accelerated thermal decomposition.**

*** DO NOT use water or water-based extinguishing agents.***

References

- (1.) <https://corecheminc.com/safe-handling-guide-sulfuric-acid/#:~:text=Sulfuric%20Acid%20is%20a%20strong,mixing%20to%20minimize%20heat%20generation>
- (2.) https://www.ccohs.ca/oshanswers/chemicals/chem_profiles/sulfuric_acid.html



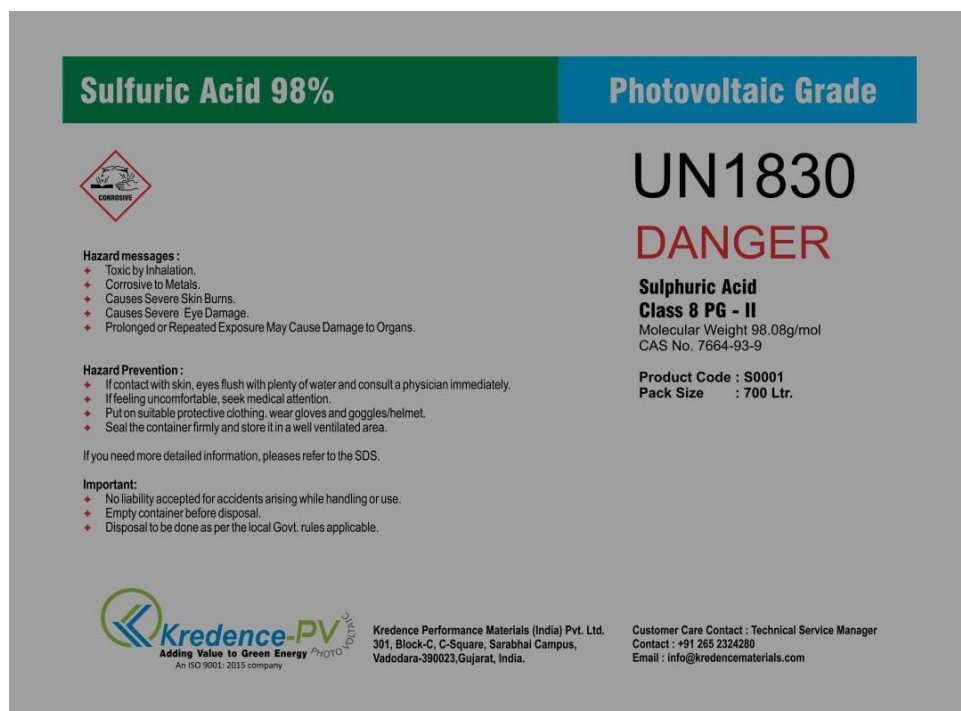


Figure 1: Sulfuric Acid PV grade ready for transport in an IBC with proper labeling. As shown above, green taping is used for easy visual identification. All H₂SO₄ IBCs at our facility are stored together to maintain compatibility.

Figure 2: Customized product label included on all IBCs and containers that customers receive from Kredence. Label includes important product information.

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