

Product Information

Sulfur trioxide, stabilized **Instructions for handling glass bottles of** **stabilized sulfur trioxide**

Catalog Numbers **425478** and **227692**

Store at Room Temperature

Technical Bulletin AL-141

TECHNICAL BULLETIN

CAS RN 7446-11-9

Synonym: sulfuric anhydride

Product Description

Sulfur trioxide, stabilized (sulfuric anhydride) is a powerful sulfurating agent, very strong oxidizer, and strongly acidic.

The following characteristics are common to stabilized sulfur trioxide:

- A fire may result if this material comes in contact with combustible materials.
- Liquid and vapor are corrosive to eyes, skin, mucous membranes, and respiratory tract.
- Reacts violently with water.
- Fumes profusely in air.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the product at room temperature.

Procedure - Instructions for handling glass bottles of stabilized sulfur trioxide

Notes: READ THE FOLLOWING INFORMATION BEFORE OPENING THE METAL CAN!!!

Due to its hazardous nature, stabilized sulfur trioxide should be used only by technically qualified personnel in the presence of a laboratory assistant. All work should be performed in a well-ventilated chemical fume-hood.

Personnel handling this material should use adequate protective clothing and equipment (e.g., face shield and heavy rubber gloves, preferably of Viton®). Any spillage on protective wear or equipment must be rinsed immediately with water. Contaminated clothing must be removed promptly.

Stabilized sulfur trioxide is supplied in a screw-capped glass bottle, packed in vermiculite inside a metal can. The stabilizer is present to facilitate melting, not to prevent polymerization.

THESE INSTRUCTIONS MUST BE FOLLOWED FOR SAFE USE OF PRODUCT!!!

Handling of stabilized sulfur trioxide

1. Upon receipt, open the metal can in a properly ventilated area. Remove bottle carefully.
2. If material is not completely liquid (it may contain low temperature melting solid polymer), place bottle in a glass beaker or metal pail, and warm under heat lamp or in oven at 35 °C (95 °F).

Notes: Do Not Overheat! Stabilized sulfur trioxide boils at 44.7 °C (112.6 °F).

Melting may take up to one week. When the material is liquid, it is ready for use. Traces of non-melting polymer should not interfere with the performance of the liquid material.

3. Weigh samples into a stoppered flask or covered beaker to minimize fuming and absorption of atmospheric moisture.
4. DO NOT attempt to rinse out bottle (or any flask or beaker containing residual product) with water. Allow it to stand uncovered at the back of the hood for atmospheric decomposition to sulfuric acid.
5. For disposal of stabilized sulfur trioxide, please contact the Technical Services Department. Be sure to mention the name, catalog number and quantity of material.

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