

Material Safety Data Sheet (MSDS)

I. Identification

This Datasheet applies to the following catalog numbers which are formulated in DMSO
B-200, B-210, U-550, U551, U-555

II. Ingredients

Material: Protein and Dimethyl Sulfoxide

III. Physical Data for DMSO (CAS: 67-68-5)

Boiling point: 189°C (462K)
Vapor density (Air = 1): 1.1004 g/cm³ (liquid)
Appearance and odor: Colorless and odorless
Melting point: 18.5°C (292K)
Flash Point: 85°C
Vapor Pressure at 20°C: 0.42mmHg at 20°C
VaporDensity: 2.7
Specific gravity (H₂O = 1): 1.1g/cm³
Evaporation rate: N/A
Solubility in water: Moderately Soluble
For proteins all categories are N/A.

IV. Fire and Explosion Hazard Data

Auto-ignition temperature: 301°C
Flash point: 87°C
Flammable limits in Air (% by volume): N/A
Percent volatile by volume (%): N/A
Extinguishing media: Fire extinguishing media should match other materials in fire.
Special fire fighting procedures: If involved in fire, don NIOSH/MSHA approved self-contained breathing apparatus, flame/chemical resistant.
Unusual fire and explosion hazards: Combustible liquid. Emits toxic fumes under fire conditions/

V. Health Hazard Data

To the best of our knowledge, the complete toxicological properties of this compound have not been fully investigated. Exercise appropriate precautions to prevent opportunities for inhalation, and direct contact with skin and eyes. All uncharacterized chemicals should be treated as suspected toxins.

Toxicology: In human the lowest published toxic intravenous concentration is 686 mg/kg.

Swallowing: May be harmful if swallowed.

Inhalation: May be harmful if inhaled.

Skin contact: May be harmful.

Eye contact: May cause eye irritation and chronic eye damage.

Chronic effects of Overexposure: May be harmful.

Emergency and First Aid Procedures

Swallowing: Wash out mouth with water, provided person is conscious. Call a physician.

Skin: In case of contact, immediately wash skin with copious amounts of water.

Inhalation: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Eyes: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating eyelids with fingers. Consult a physician.

VI. Reactivity Data

Stability: Stable

Stability/Conditions to avoid: Hygroscopic. Exposure to moisture may affect product quality.

Incompatibility/Materials to avoid: Acid chlorides, Phosphorus halides, strong acids, strong oxidizing agents, strong reducing agents

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, sulfur oxides

Hazardous Polymerization: Will not occur

Hazardous Exothermic Reactions: DMSO undergoes a violent exothermic reaction on mixing with copper wool and trichloroacetic acid. Upon mixing with potassium permanganate it will flash instantaneously. It reacts violently with: acid halides, cyanuric chloride, silicon tetrachloride, phosphorus trichloride and trioxide, thionyl chloride, magnesium perchlorate, silver fluoride, methyl bromide, iodine pentafluoride, nitrogen periodate, diborane, sodium hydride, and perchloric and periodic acids. When heated above its boiling point methyl sulfoxide degrades giving off formaldehyde, methyl mercaptan, and sulfur dioxide.

VII. Spill or Leak Procedures

Steps to be taken if material is spilled or released: Wear lab coat, chemical resistant gloves and safety glasses. Wipe up spill with a suitable absorbent and dispose of properly. Wash down the spill site.

Waste disposal method: Dispose of in accordance with all federal, state and local regulations.

VIII. Special Protection Information

Respiratory protection: Not required.

Ventilation: Not required.

Protective equipment: Good laboratory practices should always be used. Wear suitable protective clothing, chemical resistant gloves and lab safety glasses.

IX. Special Precautions

Precautions to be taken in handling and storage: This compound is sold only for research use by personnel familiar who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and not rubbing eyes with hands while working in the laboratory. This compound is for use in dilute solutions in biological research. No other use is intended, and any other use may involve substantial hazards.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide for experienced personnel. Boston Biochem, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product. The burden of safe use of this material rests entirely with the user.

X. Contact

Boston Biochem, Inc.
840 Memorial Drive
Cambridge, MA 02139
Phone: 617-241-7072
FAX: 617-492-3565

Revised: June 2008

840 Memorial Drive, Cambridge, MA 02139 Phone: 617-241-7072 FAX: 617-492-3565

www.bostonbiochem.com