



SOVEREIGN CHEMICAL COMPANY

1225 West Market St., Akron OH 44313
Phone: 330-869-0500, Fax: 330-869-0518
www.sovchem.net

Material Safety Data Sheet

Sovchem® TBBS

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Manufacturer: Sovereign Chemical Company 1225 West Market St. Akron, Ohio 44313	Emergency Contact: Chemtrec: 1-800-424-9300 (continental USA) (1)703-527-3887 (outside continental USA)
Trade Name(s): Sovchem® TBBS	MSDS Number: 1717
Chemical Name: -t-butyl-2-benzothiazolesulfenamide	Synonyms: TBBS, BBTS, N-tert-butyl-2-benzothiazole sulfenamide 2-(tert-butylaminothio)benzothiazole 2-(((1,1-diethylethyl)amino)thio)benzothiazole Benzothiazolyl-2-tert-butylsulfenamide N-tert-butyl-2-benzothiazolesulfenamide N-tert-butyl-2-bezothiazolysulfenamide N-tert-butyl-2-2benzothiazolylsulphenamide 2-bezothiazolesulfenamide, N-(1,1-dimethylethyl)- 2-benzothiazolesulfenamide, N-tert-butyl-
Prepared By: Sovereign Chemical Company	Date of Issue: January 3, 2012 Revision Number: 5 (supersedes: April 14, 2008) Change(s): Periodic review. Include color for each form.

2. INGREDIENTS

<u>Component</u>	<u>CAS #</u>	<u>ENEICS #</u>	<u>Percent</u>	<u>ACGIH (TWA)</u>	<u>OSHA (TWA)</u>
N-t-butyl-2-benzothiazolesulfenamide	95-31-8	202-409-1	>95	10 mg/M ³	15 mg/M ³

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Gray white powder or off white to cream granule. Use appropriate personal protective equipment. During fire situations, irritating and toxic gases may be generated. Keep from entering storm or sanitary sewers, ground water, or soil. May cause sensitization by skin contact. Will liberate toxic gases (SO_x and NO_x) in contact with acids.

Potential Health Effects:

Eye: May cause irritation.

Skin Contact: May cause irritation and sensitization. May cause sensitization by skin contact.

Ingestion: May be irritating to the mucous membranes of the gastro-intestinal tract.

Inhalation: May be irritating to the mucous membranes of the respiratory tract.

Chronic & Carcinogenicity: The product is not known to be carcinogenic. Repeated contact with skin may cause sensitization.

4 **FIRST AID MEASURES**

Skin: Wash immediately and abundantly with water.

Eye: Wash immediately and abundantly with water for at least 15 minutes. If irritation persists, consult an ophthalmologist.

Ingestion: Get medical help.

Inhalation: Remove to fresh air. Consult a doctor.

5 **FIRE FIGHTING MEASURES**

FLASH POINT: 330 °F (Closed Cup) **LEL:** ND **UEL:** ND **AUTO IGN. TEMP. :** ND

Use water spray, dry powder or foam to extinguish fires. Product in or near fires should be cooled with a water spray or fog. A self contained breathing apparatus (SCBA) operating in the positive pressure mode and full fire fighting protective clothing should be worn for combating fires. During a fire, the product can form sulfur dioxide, nitrogen oxides, and toxic fumes. Do not allow runoff to enter waterways.

6. **ACCIDENTAL RELEASE MEASURES**

Avoid contact with skin, eyes and inhalation of dust while cleaning up. Take up any spilled product by mechanical means and place into sealed containers for proper disposal. Do not allow product to enter sewage or ground water. Dispose of waste materials including empty product bags with in accordance with Local, State and Federal regulations.

7. **HANDLING AND STORAGE**

Storage Conditions: Store in closed containers in a cool, dry, well-ventilated environment away from strong oxidizing materials and direct sunlight.

Handling: Good housekeeping and engineering practices should be employed to prevent the generation and accumulation of dusts. Individuals handling this product should wear personal protective equipment specified in Section 8. Plant environment should include controls and equipment specified in Section 8.

8. **EXPOSURE CONTROL - PERSONAL PROTECTION**

Engineering Controls: Local exhaust ventilation should be provided. Design details for local exhaust ventilation systems may be found in the latest edition of "Industrial Ventilation: A Manual of Recommended Practices" published by the ACGIH and available at their web site, <http://www.acgih.org>. The need for local exhaust ventilation should be evaluated by a professional industrial hygienist. Local exhaust ventilation systems should be designed by a professional engineer.

Respiratory Protection: Dust mask is recommended.

Eye Protection: Safety glasses. An eye wash device should be available in the work area where the product is handled.

Skin Protection: Gloves are recommended. Neoprene or nitrile rubber coated apron or other body covering may be required if there is a possibility of regular work clothing becoming contaminated with the product. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse. Do not smoke or eat while handling the product. A shower is recommended after handling the product.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance/Physical State: Gray white powder or off white to cream granule.	Melt Point: 104 - 111°C
Vapor Density (Air = 1): NA	Octanol/Water Partition Coefficient: 24000
Vapor Pressure: NA	Evaporation Rate BuOAC = 1: NA
Odor: Mild amine	Specific Gravity: 1.26 – 1.32 at 20°C
% Volatile by Volume: NA	Boiling Point: NA
% Solubility (H₂O) : Insoluble	pH: 10.2 (10g/l aq. Sol.)
Solubility in solvents: Alcohols, acetone, chloroform	

10. STABILITY AND REACTIVITY

Stability/Polymerization: Stable under normal conditions.

Incompatibility (conditions to avoid): High temperatures above 100 degrees C, humidity, acids and oxidants.

Hazardous Decomposition Products: Possible emission of SO_x, carbon dioxide and NO_x at high temperatures.

Special Sensitivity: None that are known.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Inhalation: No data available.

Ingestion: LD50 (oral, rat) >6310 mg/kg

Skin-contact: LD50 (dermal, rabbit) >7940 mg/kg

Inhalation: Irritating to respiratory system.

Skin-contact: Not irritating to skin.

Eye-contact: Slightly irritating to eyes.

Sensitization: Skin-contact: Risk of skin sensitization.

12. ECOLOGICAL INFORMATION

Persistence/Degradability: In water: Not readily biodegradable.

Aquatic Toxicity: Fish: Pimephales promelas LC50, 96 hour 21 mg/l

Daphnia: Daphnia Magna CE(1)50, 48 hour >100 mg/l

13. DISPOSAL CONSIDERATIONS

Product should be disposed of in an EPA approved landfill or incinerator in accordance with all local, state, and/or federal regulations.

14. TRANSPORTATION INFORMATION

US Dot, ADR / RID, IMDG, IATA: Currently not regulated.

15. REGULATORY INFORMATION

WHMIS: Listed 1%

CERCLA/RCRA: Not listed, no reportable quantities or threshold planning quantities.

TSCA: All ingredients listed on the TSCA inventory

SARA Title III, Section 313: Not listed.

NTP, IARC, SUBPART Z, Proposition 54 (CA), Clean Air: Not listed.

Canadian DSL: All ingredients are listed.

OSHA: May cause sensitization by skin contact.

HMIS®/III Rating: Health – 2, Flammability – 1, Physical Hazard – 0, Personal Protection Equipment – F* - safety glasses, protective gloves, apron, dust mask

*This is recommended personal protection equipment; final personal protection equipment should be determined by the plant safety department based on the actual conditions under which the product is used.

16. OTHER INFORMATION

NE = Not Established

NA = Not Applicable

ND = Not Determined

IMPORTANT SAFETY NOTICE: The information in the Material Safety Data Sheet relates only to the specific material(s) described herein and does not relate to use in combination with any other material or substance or in any process. We believe that the information contained herein is current as of the date of issue of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of this product are not within the control of Sovereign Chemical Company, it is the user's obligation to determine the conditions of safe use of the product.

Users of this product should study this Material Safety Data Sheet and become aware of the product hazards and safety information before using the product. Users should also notify their employees, agents, and contractors of the information on this Material Safety Data Sheet and any product hazards and safety information in order to provide safe use of this product.