

郑州市双力化工产品有限公司

ZHENGZHOU DOUBLE VIGOUR CHEMICAL PRODUCT CO.LTD.

郑州市金水区五金机电城3号院32号

NO.32 COURTYARD NO.3 SONGZHAI JINSHUI ZHENGZHOU HENAN CHINA

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Issue date: 15 Nov, 2006

## MATERIAL SAFETY DATA SHEET

FOR TBBS

### **1. Product Identifications**

Product Name: TBBS  
Chemical Name: N-tert-butyl-benzothiazole sulfenamide  
Formula: C<sub>11</sub>H<sub>14</sub>N<sub>2</sub>S<sub>2</sub>

### **2. Physical Description/Properties**

Specific Gravity: 1.28 typical  
Melting Point (°C Min) 104  
Bulk Density (g/cm<sup>3</sup>): NA  
Diameter of Pellet (mm): NA  
PH Value NA  
Appearance: Off white or powder or pellet  
Odor: Slight Amine  
Taste: Slight Bitter  
Solubility: Soluble in acetone and in ethyl alcohol. Insoluble in water.  
Volatiles % <0.5  
Ash % <0.4

### **3. Hazard Information**

#### **Combustible dust**

Keep away from heat, sparks and flame.

Eye irritant-Can cause redness, tearing and swelling. Skin contact may cause allergic reaction.

Inhalation may cause upper respiratory irritation.

Ingestion of large quantities can cause damage to the liver and kidneys.

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### **4. First Aid Information**

Skin: Remove contaminated clothing and wash before re-use. Immediately wash contaminated skin with running water.

Ingestion: Immediately rinse mouth with water. Induce vomiting only at the instruction of a physician. Seek immediate medical attention.

Eyes: Flush with water for 15 minutes. Seek medical attention if irritation persists.

Inhalation: Remove person to fresh air. Get immediate medical attention if breathing is difficult or short.

### **5. Handling and Storage**

Storage: Store in a dry well-ventilated area avoiding direct exposure to sunlight

Stability in storage: one year

### **6. Employee Protection Recommendations**

The employee should wear protective clothes and avoid direct physical contact with the product.

Eye Protection: Wear chemical safety glasses or goggles

Hand Protective Requirements: Wear protective gloves.

Skin Protective Requirements: Wear overalls.

Ventilation: Local exhaust

### **7. Toxicological Information**

Low toxicity

LD50 acute oral for rats: >6300mg/kg

LD50 acute skin for rats: >7940mg/kg

### **8. Fire and Explosion Data**

Flash point: Not available Exposure standard

limits: Not available Flammable

Extinguish Media: Spray water, Carbon Dioxide, foam, sand or dry chemical.

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### **9. Reactivity**

Chemical stability: Stable when stored in original container protected from heat and moisture.

Hazardous Polymerization: Does not occur.

Materials to avoid: Strong oxidizers, acids and water. Hazardous products of decomposition: Carbon monoxide, amines, oxides of nitrogen and sulfur.

### **10. Accidental Release and Disposal**

Spills: Sweep and place in closable container. Avoid generation of dust. Wear appropriate protective clothing and safety devices. Do not use water to remove spilled material.

Disposal: Bury waste and empty containers in licensed landfill in adherence to federal, state and local regulations.

### **11. Transportation Information**

DOT Status	Not regulated
DOT shipping name	None
DOT reportable qty. (lbs)	None ICAO/IATA Status
Not regulated Proper shipping name	None
UN/NA number	None
IMDG Status	Not regulated
TDG Canada	Not regulated

### **12. Regulatory Information**

TSCA (USA):	All components are listed.
Canadian DSL:	All components are listed.
Canadian NDSL:	Not Applicable. Listed on the
DSL. EINECS/ELINCS (Europe):	All components are listed.
US Regulatory Rules	
SARA Section 302:	None found
SARA 311/312 Hazard Categories:	Immediate Delayed Fire
SARA 313 Chemical:	Component
2-Mercaptobenzothiazole. Other Regulations:	
California Proposition 65:	NONE
New Jersey Right-to-Know List:	Not Applicable. Pennsylvania
Right-to-Know List:	Not Applicable. Florida
Right-to-Know List:	Not Applicable. Minnesota
Right-to-Know List:	Not Applicable. MA Right-to-Know

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List: Not Applicable.  
FDA Status 21 CFR: Regulated for Use under  
the following sections of 21 CFR:  
177.2600 Rubber Articles  
Intended for Repeated Use in  
Food Contact.

Canadian Regulations

WHMIS Hazard Class: D2B TOXIC  
MATERIALS/ Materials Causing Other toxic Effects  
NPRI: Not Listed. (Canada)

### **13. Other Information**

FDA status 21 CFR Regulated for use under the following sections of  
21CFR: 177.2600.

Rubber articles intended for repeated use in food contact

HMIS Classification Health 1 Flammability 1 Reactivity 0

Important Note: The information provided is without warranty regarding  
its accuracy or completeness. The information may not be valid under  
all conditions. The user has the final responsibility for determining the  
suitability of the product in a given application.