

# Mixslab<sup>®</sup> TBBS

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
<b>Manufacturer</b> Shandong Yanggu Huatai Chemical Co., LTD No.217, Qinghexi Road Yanggu County, Shandong, China 252300	<b>Emergency Contact</b> Chemtrec: 1-800-424-9300 (continental USA) (1)703-527-3887 (outside continental USA)
<b>Trade Name(s):</b> Mixslab <sup>®</sup> TBBS 80	<b>Synonyms:</b> 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-
<b>Chemical Name:</b> -t-butyl-2-benzothiazolesulfenamide	<b>CAS Number:</b> 95-31-8
<b>Relevant identified uses of the substance or mixture and uses advised against:</b> No further relevant information available.	<b>Application of the substance/the preparation:</b> Rubber compounding
<b>Issued By:</b> Sovereign Chemical Company  According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS	<b>SDS Number:</b> 1882 <b>Date of Issue:</b> January 13.2014

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H400, H410.



GHS09 Environment  
 Aquatic Acute 1  
 Aquatic Chronic 1

H400 Very toxic to aquatic.  
 H410 Very toxic to aquatic life with long lasting effects.



GHS07  
 Skin Sens.1

H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant  
 R36/37/38

Irritating to eyes, respiratory system and skin

Information concerning particular hazards for human and environment: May form combustible dust concentrations in air.

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H410

The product is classified and labeled according to the CLP regulation.

Hazard pictograms



This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS)



GHS07

GHS09

Signal word: Warning

Hazard-determining components of labelling: N-Tert-butylbenzothiazole-2-sulphenamide

Hazard statements

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P280 Wear protective gloves and eye protection.

P273 Avoid release to the environment.

P261 Avoid breathing dust.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P391 Collect spillage.

Hazard description

WHMIS-symbols



D2B –Toxic material causing other toxic effects

NFPA ratings (scale 0-4)



Health = 0  
Fire = 1  
Reactivity = 0

HMIS ratings (scale 0-4)

HEALTH	0
FIRE	1
REACTIVITY	0

Health = 0  
Fire = 1  
Reactivity = 0

HMIS Long Term Health Hazard Substances: Substance is not listed.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 Substances

CAS No., Description: 95-31-8, N-Tert-butylbenzothiazole-2-sulphenamide  
Identification number(s): EC number: 202-409-1

#### 4. FIRST AID MEASURES

##### 4.1 Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

##### After inhalation

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

In case of irregular breathing or respiratory arrest provide artificial respiration.

##### After skin contact

Brush off loose particles from skin.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

##### After eye contact

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

##### After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

##### 4.2 Most important symptoms and effects, both acute and delayed

Gastric or intestinal disorders.

Allergic reactions

Slight irritant effect on skin and mucous membranes.

Slight irritant effect on eyes.

Hazards: No further relevant information available.

##### 4.3 Indication of any immediate medical attention and special treatment needed

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

Contains N-Tert-butylbenzothiazole-2-sulphenamide. May produce an allergic reaction.

#### 5. FIRE FIGHTING MEASURES

##### 5.1 Extinguishing media

Suitable extinguishing agents: CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons, unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture: Formation of toxic gases is possible in case of fire.

##### 5.3 Advice for firefighters

##### Protective equipment

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information: No further relevant information available.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.  
Avoid formation of dust.  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation.

### 6.2 Environmental precautions

Do not allow to enter sewers/ surface or ground water.  
Inform respective authorities in case of seepage into water course or sewage system.

### 6.3 Methods and material for containment and cleaning up

Pick up mechanically.  
Send for recovery or disposal in suitable receptacles.

### 6.4 Reference to other sections

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.  
Keep away from heat and direct sunlight.  
Any unavoidable deposit of dust must be regularly removed.

Information about fire and explosion protection: Dust can combine with air to form an explosive mixture.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

Requirements to be met by storerooms and receptacles: Protect from humidity and water.  
Information about storage in one common storage facility: Store away from foodstuffs.  
Further information about storage conditions: Store receptacle in a well-ventilated area.

### 7.3 Specific end use(s): No further relevant information available.

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

### 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

DNELs: No further relevant information available.

PNECs: No further relevant information available.

Additional information: The lists valid during the making were used as basis.

### 8.2 Exposure controls

#### Personal protective equipment

#### General protective and hygienic measures

The usual precautionary measures are to be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Do not inhale dust / smoke / mist.  
 Avoid contact with the eyes and skin.

**Respiratory protection**

For spills, respiratory protection may be advisable.  
 NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

**Protection of hands**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:

- Butyl rubber, BR
- Neoprene gloves

**Eye protection**



Safety glasses

Body protection: Protective work clothing

Limitation and supervision of exposure into the environment: No further relevant information available.

**Risk management measures**

See Section 7 for additional information.  
 No further relevant information available.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on basic physical and chemical properties:

General Information:

Appearance Form: Solid. Color: Beige.	Change in Condition Melting point/Melting range: >100 °C (>212 °F) Boiling point/Boiling range: Undetermined.
Odor: Amine-like.	Octanol/Water Partition Coefficient: Not determine.
Odor threshold: Not determined.	pH: Not applicable.
Vapor Pressure: Not determined.	Flash point: >150 °C (>302 °F).
Density at 20 °C: 1.17 g/cm³.	Flammability (solid, gaseous): Product is not flammable.
Relative density: Not determined.	Ignition temperature: Not determined.
Vapor Density: Not applicable.	Decomposition temperature: Not determined.
Evaporation rate: Not applicable.	Self-igniting: Product is not self-igniting.
Solubility in / Miscibility with water: Insoluble.	Danger of explosion: Product does not present an explosion hazard.

<p>Viscosity</p> <p>Dynamic: Not applicable</p> <p>Kinematic: Not applicable</p> <p>Organic solvents: Not determined</p> <p>Solid Content: Not determined</p>	<p>Explosion limits</p> <p>Lower: Not determined.</p> <p>Upper: Not determined.</p>
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9.2 Other information No further relevant information available.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

#### 10.2 Chemical stability

Thermal decomposition/conditions to be avoided: No decomposition if used and stored according to specifications.

#### 10.3 Possibility of hazardous reactions

Reacts with strong acids and oxidizing agents.

Reacts with inorganic acid chlorides.

Reacts with strong alkali.

Risk of dust explosion if enriched with fine dust in the presence of air.

Toxic fumes may be released if heated above the decomposition point.

#### 10.4 Conditions to avoid

Moisture.

Keep away from heat and direct sunlight.

#### 10.5 Incompatible materials: No further relevant information available.

#### 10.6 Hazardous decomposition products

Carbon monoxide and carbon dioxide.

Nitrogen oxides (NO<sub>x</sub>)

Sulphur oxides (SO<sub>x</sub>).

Irritant gases/vapors

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

#### Primary irritant effect

On the skin: Slight irritant effect on skin and mucous membranes.

On the eye: Slight irritant effect on eyes.

Sensitization: Sensitization possible through skin contact.

#### Additional toxicological information

Irritant

Danger through skin adsorption.

Toxic and/or corrosive effects may be delayed up to 24 hours.

Sensitization: Sensitization possible by skin contact.

#### Repeated dose toxicity

Repeated exposure may cause skin dryness or cracking.

Repeated exposures may result in skin and/or respiratory sensitivity.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Aquatic toxicity: Toxic for aquatic organisms.

12.2 Persistence and degradability: The product is biodegradable after prolonged adaptation.

12.3 Bio-accumulative potential: Does not accumulate in organisms.

12.4 Mobility in soil: No further relevant information available

12.3 Bioaccumulative potential Does not accumulate in organisms.

12.4 Mobility in soil No further relevant information available.

Ecotoxicological effects

Remark: Very toxic for fish

Additional ecological information

General notes

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Also, poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment cannot be excluded.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

Un-cleaned packaging

Recommendation: Disposal must be made according to official regulations.

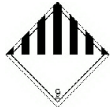

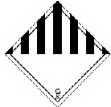

## 14. TRANSPORTATION INFORMATION

### 14.1 UN-Number

DOT	Not regulated
ADR, IMDG, IATA	UN3077

### 14.2 UN proper shipping name

DOT	Not regulated
ADR	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

IMDG	N.O.S. (N-Tert-butylbenzothiazole-2-sulphenamide) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-Tert-butylbenzothiazole-2-sulphenamide), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-Tert-butylbenzothiazole-2-sulphenamide),
14.3 Transport hazard class(es)	
DOT, Class	Not regulated
ADR	
 	
Class	9 (M7) Miscellaneous dangerous substances and articles.
Label	9
IMDG, IATA	
 	
Class	9 Miscellaneous dangerous substances and articles.
Label	9
14.4 Packing group	
DOT	Not regulated
ADR, IMDG, IATA	III
14.5 Environmental hazards	
Marine pollutant	No Symbol (fish and tree)
Special marking (ADR)	Symbol (fish and tree)
Special marking (IATA)	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
Danger code (Kemler)	90
EMS Number	F-A, S-F
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information	
ADR	
Limited quantities (LQ)	5 kg
Transport category	3
Tunnel restriction code	E
UN "Model Regulation"	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-Tert-butylbenzothiazole-2-sulphenamide), 9, III



**15. REGULATORY INFORMATION**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
United States (USA)

SARA Section 355 (extremely hazardous substances)	Substance is not listed.
SARA Section 313 (Specific toxic chemical listings)	Substance is not listed.
TSCA (Toxic Substances Control Act)	Substance is listed.
Proposition 65 (California)	
Chemicals known to cause cancer	Substance is not listed.
Chemicals known to cause reproductive toxicity for females	Substance is not listed.
Chemicals known to cause reproductive toxicity for males	Substance is not listed.
Chemicals known to cause developmental toxicity	Substance is not listed.
Carcinogenic Categories	
EPA (Environmental Protection Agency)	Substance is not listed.
IARC (International Agency for Research on Cancer)	Substance is not listed.
TLV (Threshold Limit Value established by ACGIH)	Substance is not listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)	Substance is not listed.
OSHA-Ca (Occupational Safety & Health Administration)	Substance is not listed.
Canada	
Canadian Domestic Substances List (DSL)	Substance is listed.
Canadian Ingredient Disclosure list (limit 0.1%)	Substance is not listed.
Canadian Ingredient Disclosure list (limit 1%)	Substance is not listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**16. OTHER INFORMATION**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- GHS: Globally Harmonized System of Classification and Labeling of Chemicals
- ACGIH: American Conference of Governmental Industrial Hygienists
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- WHMIS: Workplace Hazardous Materials Information System (Canada)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)