

Mixgran and Mixslab® TBBS 80

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
Manufacturer Shandong Yanggu Huatai Chemical Co., LTD No.399, Qinghexi Road Yanggu County, Shandong, China 252300	Emergency Contact Chemtrec: 1-800-424-9300 (USA) (1)330-542-8400 (outside USA)
Trade Name(s): Mixslab® TBBS 80, Mixgran® TBBS 80	Chemical Name N-tert-butylbenzothiazole-2-sulfenamide
Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.	Application of the substance/the preparation: Rubber compounding
Issued By: Sovereign Chemical Company (Distributor) 4040 Embassy Parkway, Suite 190 Akron, Ohio 44333	Date of Issue: August 1, 2026

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Information in accordance with US 29 CFR 1910.1200 (Hazcom 2012), Regulation (EC) No 1272/2008, 1907/2006/EC (REACH), and GHS

Hazard Pictograms (CLP)	:  GHS07,  GHS09
Signal Word	: Warning
Hazard statements (CLP)	: - H317 – May cause an allergic skin reaction, Category 1 - H400 - Very toxic to aquatic life, Category 1 - H410 - Very toxic to aquatic life with long lasting effects, Category 1
Precautionary statements (CLP)	: - P261 – Avoid breathing dust/fume/gas/mist/vapors/spray - P272 - Contaminated work clothing should not be allowed out of the workplace - P280 - Wear protective clothing, eye protection, face protection, protective gloves - P302+P352 - IF ON SKIN: Wash with plenty of soap and water - P321 – Specific treatment (see supplemental first aid instructions on this label) - P333+ P313 - If skin irritation or rash occurs: Get medical advice/attention - P501 - Dispose of contents/ container to an approved waste disposal plant - P363 - Wash contaminated clothing before reuse - P273 - Avoid release to the environment - P391 - Collect spillage. Hazardous to the aquatic environment
Other Hazard	: Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No	EC No	Weight %	Classification
N-tert-butylbenzothiazole-2-sulfenamide	95-31-8	202-409-1	≥ 80	H317 – May cause an allergic skin reaction, Category 1 H400 - Very toxic to aquatic life, Category 1 H410 - Very toxic to aquatic life with long lasting effects, Category 1
EPDM	Propriety	Propriety	≥ 20	Not classified

General CAS No. EPDM: 25038-36-2 / EC No: 607-505-0

4. FIRST AID MEASURES

Description of first aid measures

First-aid measures general:	In all cases of doubt, or when symptoms persist, seek medical attention
First-aid measures after inhalation:	Move to fresh air. If symptoms persist, seek medical advice.
First-aid measures after skin contact:	Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact:	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.
First-aid measures after ingestion:	Rinse mouth, give water to drink.

Most important symptoms and effects, both acute and delayed

General:	Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. Repeated contact may cause skin sensitization.
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Indication of any immediate medical attention and special treatment needed

General:	Persons with pre-existing skin, eye, or respiratory disease may be at increased risk. Attending physician should treat exposed patients symptomatically.
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5. FIRE FIGHTING MEASURES*Extinguishing media*

Suitable extinguishing agents: Water spray, water mist, foam, dry chemical powder, CO₂

Unsuitable extinguishing agents: Water jet.

Special hazards arising from the substance or mixture

General: Emits toxic fumes under fire conditions.
Hazardous decomposition/combustion products: carbon monoxide (CO), sulfur oxides (SO_x), nitrous gases (NO_x).

Advice for firefighters

General: Wear self-contained breathing apparatus. Wear full protective suit. Do not allow run-off from firefighting to enter drains.

6. ACCIDENTAL RELEASE MEASURES*Personal precautions, protective equipment and emergency procedures*

General measures: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

Environmental precautions

General precautions: Avoid discharge into the environment.

Methods and material for containment and cleaning up

General methods and materials: Collect as much as possible in a clean container for (preferable) reuse or disposal.

Reference to other sections

Sections: See Section 7 for more information
See section 8 for more information
See section 13 for more information

7. HANDLING AND STORAGE*Precautions for safe handling*

General: Avoid contact with skin. Avoid dust generation.
Fire and explosion prevention: Take precautionary measures against static discharges.
Avoid dust accumulation. Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition.

Kst: 171 - 273 bar. m/s. Maximum corrected explosion pressure: 7.9 - 8.5 bar.

Conditions for safe storage, including any incompatibilities

General: Store in cool, dry conditions in well-sealed containers.
 Keep ignition sources away - Do not smoke.

Specific end use(s)

General: No other information available.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Control Parameters

Exposure limit values: OES-TWA: 5.0 mg/m (Respirable dust)
 TLV (US): 10 mg/m³.

Exposure controls

Engineering controls: Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low or enclosed places

Personal protective equipment: Wear recommended personal protective equipment.

Eye protection: Safety glasses.

Hand protection: Wear suitable protective clothing and gloves.

Respiratory protection: Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazard: No additional information available.

Environmental exposure controls: Avoid release to the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form: Solid	Melting Point/Range: 109 °C
Color: Beige	Boiling Point/Range: Not determined, degrades at 207 °C (OECD SIDS)
Odor: Faint amine like aromatic	Odor threshold: Not determined

pH: Not determined	Flash point: Not applicable
Vapor Pressure: No data available	Flammability: Not flammable
Density at 20 °C: 1.29 g/cm ³	Ignition temperature: Not applicable
Relative density: Not applicable	Decomposition temperature: 207°C
Solubility: Water: 0.00032 kg/m ³ (25°C)	Partition coefficient (n-octanol/water): 4.38
Oxidizing properties: Not determined	Explosion limits: Lower: Not applicable Upper: Not applicable

Other information:

No further relevant information available.

10. STABILITY AND REACTIVITY

Reactivity:	No information available.
Chemical Stability:	Stable under normal conditions.
Possibility of hazardous reactions:	No dangerous reactions known under normal conditions of use.
Conditions to avoid:	Avoid strong heating. Heating > 100°C: May catch fire.
Incompatible materials:	No specific recommendations.
Hazardous decomposition products:	Thermal decomposition products: carbon monoxide (CO), nitrous gases (NO _x), sulfur oxides (SO _x).

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:	No data available
Skin corrosion/irritation:	Not classified
Serious eye damage:	No data available
Sensitization:	May cause an allergic skin reaction

Germ cell mutagenicity:	No data available
Carcinogenicity:	There is no information available on Carcinogenicity. (OECD SIDS).
Reproductive toxicity:	No effects were observed, either in the females or offspring, at any dose level and under the conditions of the test the substance was considered to have no effect on reproduction. (OECD SIDS).
STOT single exposure:	No data available
STOT multiple exposure:	No data available
Aspiration hazard:	No data available
Endocrine disrupting properties:	Not applicable
Other information:	No information available

12. ECOLOGICAL INFORMATION

Toxicity

Not classified.

N-t-Butylbenzothiazole-2-sulfenamide (95-31-8)	
LC50 96h - Fish	N/A
EC50 48h - Crustacea	N/A
EC50 72h - Algae	N/A

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

No data available.

Endocrine disrupting properties

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products:	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging:	Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORTATION INFORMATION

UN-Number	
DOT	N/A
ADR, ADN, IMDG, IATA, RID	UN3077
UN proper shipping name	
DOT	N/A
ADR, ADN, IMDG, IATA, RID	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S (N-t-Butylbenzothiazole-2-sulfenamide)
Transport hazard class(es)	
DOT	N/A
ADR, ADN, IMDG, IATA, RID	9
Packing group	
DOT	N/A
ADR, ADN, IMDG, IATA, RID	III
Environmental hazards	Marine Pollutant
Marine pollutant	Yes (fish and tree symbol)
Special Marking (ADR)	Fish and tree symbol
Special Marking (IATA)	Fish and tree symbol
Special precautions for user	Not data available
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
UN "Model Regulation"	

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Section 355 (extremely hazardous substances)	Not listed
SARA Section 313 (Specific toxic chemical listings)	Not listed
TSCA (Toxic Substances Control Act)	Listed
Proposition 65 (California)	
Chemicals known to cause cancer	Not listed
Chemicals known to cause reproductive toxicity for females	Not listed
Chemicals known to cause reproductive toxicity for males	Not listed
Chemicals known to cause developmental toxicity	Not listed

Carcinogenic Categories	
IARC (International Agency for Research on Cancer)	Not listed
TLV (Threshold Limit Value established by ACGIH)	Not listed
NIOSH-Ca (National Institute for Occupational Safety and Health)	Not listed
OSHA (Occupational Safety & Health Administration)	Not listed
Canada	
Canadian Domestic Substances List (DSL)	Listed
Canadian Ingredient Disclosure list (limit 0.1%)	Not listed
Canadian Ingredient Disclosure list (limit 1%)	Not listed
REACH	
REACH Candidate List	Not listed
REACH XIV List	Not listed

Chemical safety assessment:

No chemicals safety assessment has 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