



Safety Data Sheet (SDS)

Revision 1 / Review Date: 4/27/15

1. Chemical Product and Company Identification

Product Name:	MBT 2-Mercaptobenzothiazole
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
MSDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	2-Mercaptobenzothiazole
CAS No.:	149-30-4
EC No:	205-736-8
Product Use:	Used as rubber antioxidant.
OSHA Status	Not Hazardous
REACH registration No.:	Not available.
For emergency health, safety, and environmental information, calls 330-920-8023	
For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300	

2. Hazard(s) Identification

Classification: The substance is classified as following according to 67/548/EEC and REGULATION (EC) No 1272/2008.

Regulation EC NO 1272/2008

<u>Hazard Classes/Hazard categories</u>	<u>Hazard statement</u>
Skin Sens.	H317
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

For full text of H-Phrases see below.

67/548/EEC

<u>Hazards Characteristics</u>	<u>R-Phrases</u>
Xn	R43
N	R50/53

For full text of R-phrases: see section 16.

Additional hints: Not available.

Label Elements

Hazard Pictograms:



<u>Signal Word</u>	Warning
<u>Hazard Statement:</u>	H317 may cause an allergic skin reaction. H410 very toxic to aquatic life with long lasting effects.
<u>Precautionary Statement:</u>	P261 Avoid breathing dust/fume/ mists / vapors/ spray. P272 Contaminated work clothing should not be allowed out of the work place. P280 Wear protective gloves/protective clothing/ eye protection/face protection. P273 Avoid release to the environment. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse. P391 Collect spillage. P501 dispose of contents/containers to local Regulation.
<u>Information pertaining to special dangers. For human and environment</u>	
<u>The most important adverse physicochemical effects:</u>	Not applicable.
<u>The most important adverse human health effects:</u>	May cause an allergic skin reaction.
<u>The most Important adverse environmental effects:</u>	Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
<u>Other adverse hazards:</u>	Not applicable.

3. Composition / Information on Ingredients

Substance/Mixture: Substance

Hazardous ingredients:

Chemical Name	Registration No.	CAS Number	EC No.	Concentration
2-Mercaptobenzothiazole	N/A	149-30-4	205-736-8	≥98%

4. First Aid Measures

<u>Inhalation:</u>	If symptoms develop, move victim away from exposure and into fresh air. Administer oxygen if breathing is difficult.
<u>Eyes:</u>	Flush eyes with copious quantities of water while holding eyelids open. If symptoms persist or if there is any visual difficulty, consult physician.
<u>Skin:</u>	Remove contaminated clothing and launder it before reuse. Wash exposed area with soap and water. If irritation persists, consult a physician.

Ingestion:

Do not induce vomiting. Rinse mouth. Give water to drink. Seek medical attention. If individual is drowsy, do not give anything by mouth.

Information to physician:

Symptoms: Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. **Hazards:** Repeated contact may cause skin sensitization. **Treatment:** See Section 8 for information on exposures measures.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

Water Spray, water mist, Dry Chemical, Carbon Dioxide CO₂, appropriate foam.

Unsuitable extinguishing media:

None known.

Special Fire Fighting Procedures:

Do not enter confined fire space without proper protective equipment, including a NIOSH approved SCBA. Wear self-contained breathing apparatus and protective gloves.

Hazardous Combustion Products:

Emits toxic fumes under fire conditions: Carbon monoxide (CO), Sulfur Oxides (SO_x), nitrous gases (NO_x).

6. Accidental Release Measures

Steps to be taken in case material is spilled:

Remove ignition sources. Provide adequate ventilation. Avoid inhalation of vapors or dust. Avoid skin and eye contact.

Environmental Disposal Information:

Avoid disposing into drainage/sewer system or directly into the aquatic environment.

Waste Disposal:

Pick up and arrange disposal without crating dust. Keep in suitable, closed containers for disposal. Clean up affected area. Reclaim or dispose of in accordance with local, state, and federal regulations.

Additional information:

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

7. Handling and Storage:

Handling:

Avoid contact with skin and eyes. Avoid dust generation. Take precautionary measures against static discharges.

Storage:

Store in a cool, dry, ventilated area. Keep containers away from sources of ignition- No smoking. Keep container tightly closed. store separately from oxidizing agents.

8. Exposure Controls / Personal Protection

<u>Exposure Limit Values:</u>	Components with occupational exposure limits resp. Biological occupational exposure limits requiring monitoring: Occupational exposure limits: OES-TEA 10.0mg/m ³ . (Total inhalable dust) Additional exposure limits under the conditions of use: Not available. DNEL/DMEL and PNEC-Values: Not Available.
<u>Exposure controls:</u>	Ensure good ventilation and local exhaustion of the work area. Avoid dust generation.
<u>Respiratory Protection:</u>	Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment.
<u>Ventilation:</u>	Provide explosion proof ventilation as required to control vapor levels. Ventilation rates should be based upon usage conditions.
<u>Protective Gloves:</u>	Wear appropriate gloves to prevent skin exposure.
<u>Eye Protection:</u>	Wear safety glasses or chemical goggles to prevent eye contact.
<u>Skin and Body Protection:</u>	Wear suitable protective clothing to prevent skin exposure.
<u>Environmental Exposure Controls:</u>	Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste. According to local regulations, federal and official regulations.
<u>Consumer Exposure Controls:</u>	Measures related to consumer uses of the substance (as such or in Mixtures): As such. Measures related to the service life of the substance in articles: No.

9. Physical and Chemical Properties

Physical Form:	Powder or granule.
Appearance:	White or light yellow
Odour:	Odorless
PH:	Not Determined
Melting point/range (°C):	>171 °C
Boiling point/range (°C):	Not determined
Flash point (°C):	Approx. 252 °C
Ignition temperature (°C):	Not determined
Vapor pressure (20 °C):	Negligible at room temperatures.
Oxidizing properties:	Not Applicable
Density (g/cm ³) (25 °C):	1.28 g/cm ³
Bulk density (kg/m ³):	670-700 kg/m ³ (25 °C)
Water solubility (g/l) at 20 °C:	0.118kg/m ³ (PH7 21 °C)
n-Octanol /Water (log Po/w):	2.42
Molecular weight:	130.19
Viscosity, dynamic (mPa s):	Not applicable.
Dust explosion hazards:	Not available.

Explosion limits	Lower: Not Determined Upper: Not determined.
Substance group relevant properties:	Environmentally hazardous substance, solid.

10. Stability and Reactivity

<u>Stability:</u>	Stable under recommended storage and handling condition.
<u>Incompatibility (Materials to Avoid):</u>	Strong oxidizing agents.
<u>Conditions to Avoid:</u>	Heating > 100 °C: May catch fire.
<u>Hazardous decomposition products:</u>	Thermal decomposition products: Carbon monoxide (CO), nitrous gases (NOx), Sulfur oxides (SOx).

11. Toxicological Information

<u>Toxicokinetics, metabolism and distribution:</u>	Not applicable.
<u>Acute Toxicity:</u>	LD50 (Oral, Rat): 3800 mg/kg LD50 (Dermal Rabbit): >7940mg/kg
<u>Skin corrosion/Irritation effects:</u>	Slightly irritating to skin but not sufficient for classification.
<u>Eye corrosion/Irritation effects:</u>	Slightly irritation to skin but not sufficient for classification.
<u>Sensitization:</u>	May cause an allergic skin reaction.
<u>Repeated dose toxicity (sub-acute to chronic):</u>	Not applicable.
<u>STOT-singly exposure :</u>	Not applicable.
<u>STOT-repeated exposure:</u>	Not applicable.
<u>CMR effects (Carcinogenicity, mutagenicity and toxicity of reproduction):</u>	Not applicable.

12. Ecological Information

Eco toxicity:

<i>Acute toxicity</i>		<i>Time</i>	<i>Species</i>	<i>Method</i>	<i>Evaluation</i>	<i>Remarks</i>
LC50	1.5 mg/l	96h	Fish(Lepomis macrochirus)	OECD 203	N/A	N/A
LC50	4.1 mg/l	48h	Daphnia	OECD 202	N/A	N/A
EC50	0.25 mg/l	96h	Algae	OECD 201	N/A	N/A

<u>Mobility:</u>	Not applicable.
<u>Persistence and degradability:</u>	Not readily biodegradable.
<u>Bio accumulative potential:</u>	Not applicable.

<u>Results of PBT and vPbB assessment:</u>	Not applicable.
<u>Other information:</u>	Do not allow to enter waters, waste and soil.

13. Disposal Considerations

<u>Disposal methods of the substance/Mixture:</u>	Avoid discharge into the environment. This material and its Container must be disposed of as hazardous waste. According To local regulations, Federal and official regulations.
<u>Disposal methods of the Contaminated Packaging:</u>	Disposal must be made according to official regulations as the methods of substance/mixture.

14. Transport Information

<u>D.O.T. Shipping Name</u>	Not Regulated.
<u>Air - ICAO (international Civil Aviation Organization)</u>	UN 3077 Class: 9 Proper shipping names: Environmentally hazardous substance, solid, n.o.s. (2-Mercaptobenzothiazole) Packaging group: III
<u>Sea - IMDG (International Maritime Dangerous Goods)</u>	UN 3077 Class: 9 Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (2-Mercaptobenzothiazole) Packaging group: III

15. Regulatory Information

Chemical Safety Assessment has been carried out?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
Relevant information regarding authorization:	Not applicable.	
Relevant information regarding restriction:	Not applicable.	
Other EU regulations:	Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.	
Other National regulations:	Not applicable	

16. Other Information

<u>Relevant R-phrases (number and full text):</u>	R43 May cause sensitization by skin contact. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the user's responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.