

SAFETY DATA SHEET

RUBBER ACCELERATOR MBT

DATE OF ISSUE 2019-7-29 VERSION 1.2

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	MBT(M)
Manufacturer	TIANJIN EASTRICHON RUBBER ADDITIVES CO., LTD.
Chemical name	2-Mercaptobenzothiazole
Synonym	Thiotax; Thiotax O; MBT; 2-Benzothiazolethiol; 2(3H)-benzothiazolethione
Material uses	Accelerator.
Product type	Powder; Oiled powder; Granule

SECTION 2. HAZARDS IDENTIFICATION

Hazard Information

Emergency Overview	WARNING! Combustible dust - explosion potential. Keep away from heat, sparks, and flame. Dust may be irritating to eyes and upper respiratory tract.
Eye Contact	May cause mild eye irritation. Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.
Skin Contact	May cause an allergic skin reaction. May cause a rash and itching of the skin. May cause skin defatting with prolonged exposure.
Inhalation	May cause mild respiratory irritation.
Ingestion	Swallowing a relatively large amount of this material is unlikely to produce serious illness or death.

SECTION 3. Composition/information on ingredients

Substance/mixture	Substance	
Ingredient name	CAS number	% by weight
2-Mercaptobenzothiazole	149-30-4	97-100

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. First aid measures

Description of necessary first aid measures

In Eyes	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
On Skin	Remove contaminated clothing. Wash skin with water, using soap if available. Remove contaminated clothing and launder before reuse. Get medical attention if irritation persists.
Inhaled	Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.
Swallowed	If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Notes To Physician Provide symptomatic/supportive care as necessary. Treatment based on sound judgment of physician and individual reactions of patient.

SECTION 5. Fire-fighting measures

Flash Point (°F/C)	485°F / 252°C
Unsuitable extinguishing	Cleveland Open Cup
Autoignition Temp. (°F/C)	Not determined.
Lower Explosion Limit in Air (LEL)	Dust cloud at 0.2 oz/ft ³
Upper Explosion Limit in Air (UEL)	Not Determined
Extinguishing Media	Water fog, carbon dioxide, foam, dry chemical
Special Exposure Hazards	Fight fire from a safe distance and from a protected location. Flammable dust when in finely divided and highly suspended state. Use water spray to cool fire exposed surfaces. Decomposition in fire may produce toxic gases. Do not allow runoff to enter waterways
Special Protective Equipment	Fire fighters should wear full protective clothing, including self-contained breathing equipment
Unusual Fire/Explosion Hazards	Toxic emissions may result if product is involved in a fire. Fire produces highly toxic sulfur dioxide gas

SECTION 6. Accidental release measures

Spill Procedures	Wear protective equipment specified. Avoid the generation of dust. Sweep, vacuum, or shovel and place into closable container for disposal.
Procedure for Cleaning/Absorption	Isolate area and remove sources of friction, impact, heat, low level electrical current, and RF energy. Isolate spill and stop leak where safe. Remove ignition sources and work with non-sparking tools. Scoop up and remove. Do NOT spread spilled product with water.
CERCLA Reportable Quantity (RQ)	Not Applicable

SECTION 7. Handling and storage

Handling	Good hygienic practices should be observed. Work clothes should be washed separately at the end of each work day. Disposable clothing should be discarded with material. Avoid generating or breathing dust. Avoid contact with eyes, skin and clothing. Reclose containers of unused product. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Do not reuse this
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container.

Storage Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Avoid exposure to direct sunlight.

SECTION 8. Exposure controls/personal protection

Eye Protection	Wear safety glasses or goggles to protect against exposure. Eye protection is not required during typical product use conditions.
Skin Protection	Normal work coveralls. Launder contaminated clothing before reuse.
Gloves	Use gloves as a standard industrial handling procedure. All cleanable impervious glove types are acceptable.
Respiratory Protection	Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure. Firefighting; use a Positive Pressure Demand Full Face Self Contained Breathing Apparatus
Ventilation	General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Adequate ventilation should be provided to keep dust concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with the applicable air pollutions control regulations. Eliminate ignition sources
Airborne Exposure Limits	Nuisance Dust. OSHA PEL/8Hr-TWA = 15 mg/m ³ (Total Dust). OSHA PEL/8-Hr TWA = 05mg/m ³ (Respirable Dust). ACGIH TLV/8-Hr TWA = 10 mg/m ³ . White Mineral Oil OSHA PEL/8-Hr TWA = 5mg/m ³ ACGIH TLV/8-Hr TWA = 5mg/m ³

SECTION 9. Physical and chemical properties

Appearance	Light yellow powder or granules.
Color	Light yellow powder (granule).
Odor	SLIGHT AROMATIC.
pH	Not available.
Melting point	169-171°C.
Boiling point	260°C.
Specific Gravity	1.4-1.5 @ 25°C
Density	Unknown.
Bulk Density	400-440 kg/m ³ (oiled) 480-520 kg/m ³ (unoaded).

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Vapor pressure	Negligible.
Vapor density (Air=1)	Not Determined.
% Volatile by Volume	<0.5%
Solubility	Soluble in Acetone Dilute base (NaOH) Slightly soluble in Ethanol.
Solubility in water	0.032 g/100ml @ 25°C.
Viscosity	Not determined.
Other Data	Decomposes above boiling point.
Molecular	167.26.
Molecular Formula	C7-H6-S2-N

SECTION 10. Stability and reactivity

Chemical Stability	Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation.
Hazardous Polymerization	Will not occur
Conditions to Avoid	Keep away from heat, sparks and flame. Dispersion of dust. Temperatures above 250°C. Avoid contact with strong oxidants such as liquid chlorine and concentrated oxygen.
Materials to Avoid	Strong oxidizing agents. Strong acids.
Hazardous Decomposition Products	Carbon monoxide Oxides of nitrogen Oxides of sulfur.
Additional Guidelines	Not Applicable.

SECTION 11. Toxicological information

Target Organs

Acute Oral LD50 (mg/kg)	3800 mg/kg
Acute Dermal LD50 (mg/kg)	>7940 mg/kg
Acute Inhalation LC50 (mg/l)	>1270 mg/kg
Principle Routes of Exposure	Eyes. Inhalation. Dermal - skin.

Ingestion	Swallowing a relatively large amount of this material is unlikely to produce serious illness or death.
Skin Contact	May cause an allergic skin reaction. May cause a rash and itching of the skin. May cause skin defatting with prolonged exposure.
Inhalation	May cause mild respiratory irritation.
Eye Contact:	May cause mild eye irritation. Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.
Aggravated Conditions:	Pulmonary disorders. Dermal ailments. Eye ailments.
Carcinogenicity Comment:	This product or one of its ingredients present 0.1% or more is

	NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA. Carcinogenic: Category 3.
Other:	No other first aid needed. Only hazard is a dust hazard.
Primary Irritation Effect:	Practically non-irritating.
Carcinogenicity:	Negative in standard tests using bacteria and yeast cells.
Genotoxicity:	None
Reproductive/Developmental Toxicity:	A National Toxicology Program (NTP) 2-year study on rats and mice concluded that there was "some evidence of carcinogenic activity" in treated rats.

SECTION 12. Ecological information

Acute Fish Toxicity	96Hr LC50 Rainbow Trout = 0.75 mg/l. 96Hr LC50 Bluegill Sunfish = 1.50 mg/l. 96Hr LC50 Fathead Minnow = 11.0 mg/l.
Acute Crustaceans Toxicity	48Hr LC50 Daphnia Magna = 4.10 mg/l
Acute Algae Toxicity	96Hr EC50 Algae = 0.25 mg/l
Octanol/Water Coefficient	Not determined.
Chemical Fate Information	Biodegradability: 2% CO2 evolution. River Water Biodegradation: None in 8 weeks. Soil Mobility: Medium to low. Sediment mobility: Slight to nil.
Other Information	Marginally susceptible to indirect photolysis.

SECTION 13. Disposal considerations

Disposal of Waste Method	This material is not a RCRA hazardous waste. Bury in a licensed landfill or burn in an approved incinerator according to federal, state, and local regulations. Empty containers should be handled in a manner not to cause dusting during collection, transportation and disposal.
Contaminated Packaging	If empty container retains product residues, all label precautions must be observed. Store away from ignition sources. Transport with all closures in place. Return for reuse or dispose according to national or local regulations. Dispose of container according to national or local regulations.

SECTION 14. Transport information

DOT:DOT Status	Proper Shipping Name
DOT Shipping Name	UN/NA Number
Not Regulated	IMDG:Status
None	Proper Shipping Name
DOT Reportable Quantity (lbs)	TDG (Canada):Status
ICAO/IATA:Status	Proper Shipping Name

	Not Rwgulated
None	None
Not REGULATED FOR TRANSPORTATION	Not Regulated
None	None
None	

SECTION 15. Regulatory information

Worldwide Inventory Status

TSCA (USA)	Listed
Canadian DSL	Listed
Canadian NDSL	N/A
EINECS/ELINCS (Europe)	Listed
Japanese Inventory (ENCS)	Listed
Korean Chemical Inventory (ECL)	Listed
Australian Chemical Inventories	Listed

(AICS)

New Zealand (NZ)	Listed
Phillipines (PICCS) Inventory	Listed
China (CLECS)	Listed

US Regulatory Rules

SARA Section 302	None Found
SARA 311/312 Hazard Catagories	Delayed Fire
SARA 313 Chemical	2-Mercaptobenzothiazole.
RCRA Status	Not a RCRA waste.

Other Regulations

California Proposition 65	NONE
New Jersey Right-to-Know List	N/A
Pennsylvania Right to Know List	N/A
Florida Right to Know	N/A
Minnesota Right to Know	N/A
MA Right to Know Law	N/A

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. 175.105 Components of Adhesives. 176.300 Slimicides in Paper and Paperboard.

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Canadian Regulations

WHMIS Hazard Class

D2B TOXIC MATERIALS / Materials Causing Other
Toxic Effects

NPRI

N/A

SECTION 16. Other information

The following has been revised since the last issue of this MSDS:

Nothing has been revised.

Additional Information

Not Applicable

Important Note

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.