



## Safety Data Sheet (SDS)

Revision 1/ Review Date: 3/8/16

### 1. Chemical Product and Company Identification

Product Name:	ZMTI
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:	Rubber Antioxidant
CAS NO:	61617-00-3
EC NO:	262-872-0
REACH:	No information 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 of the substance or mixture

#### Classification according to Regulation EU(EC) No. 1272/2008:

The following Hazard Statements are applicable only to the EU regulation and not the US GHS regulation H412.

Acute toxicity - Oral Category 4 - (H302)  
Acute toxicity - Inhalation (Dusts/Mists) Category 4 - (H332)  
Skin sensitization Category 1B - (H317)  
Reproductive Toxicity Category 2 - (H361)  
Specific target organ toxicity (repeated exposure) Category 2 – (H373)  
Chronic aquatic toxicity Category 1 - (H410)

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

Xn;R20  
Xn;R22  
Xn; R48/22  
R43  
Substance toxic to reproduction Category; R62  
N; R51/53

#### Label elements

The following Hazard statements are applicable only to the EU regulations and not the US GH regulations: H412. The product is classified and labeled according to the CLP regulation.



Label elements:

Signal word:

Hazard Statements:

Warning

H302 - Harmful if swallowed.

H332 - if inhaled.

H317 - May cause an allergic skin reaction.

H361 - Suspected of damaging fertility or the unborn child.

H373 - May cause damage to organs through prolonged or repeated exposure.

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

Precautionary Statements:

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 - Rinse mouth.

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 - Call a POISON CENTER or doctor if you feel unwell.

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P273 - Avoid release to the environment.

P501 - Dispose of contents/ container to an approved waste disposal plant.

Other hazards:

No information available.

### 3. Composition / Information on Ingredients

<b>Chemical Name</b>	<b>EC No.</b>	<b>CAS NO</b>	<b>Weight %</b>
1,3-dihydro-4(or 5)-methyl-2H-Benzimidazole-2-thione,zinc salt	262-872-0	61617-00-3	>=98

### 4. First Aid Measures

General advice:

If symptoms persist, call a physician.

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Eyes:

Rinse cautiously with water for several minutes. Remove contact lenses, if present easy to do. Continue rinsing. If symptoms persist, call a physician.

<u>Skin:</u>	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If symptoms persist, call a physician.
<u>Ingestion:</u>	Rinse mouth. Get medical attention. Never give anything by mouth to an unconscious person.
<u>Most important symptoms and effects, both acute and delayed:</u>	Harmful if swallowed. Harmful if inhaled. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.
<u>Indication of any immediate medical attention and Special treatment needed:</u>	Treat symptomatically.

### **5. Fire-Fighting Measures**

<u>Suitable Extinguishing Media:</u>	Dry chemical.
<u>Unsuitable Extinguishing Media:</u>	DO NOT USE WATER
<u>Special Fire Fighting Procedures:</u>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.
<u>Special hazards arising from the substance or mixture:</u>	Thermal decomposition can lead to release of irritating and toxic gases and vapors.

### **6. Accidental Release Measures**

<u>Personal precautions, protective equipment and Emergency procedures:</u>	Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Avoid contact with skin, eyes and inhalation of vapors. Use personal protection recommended in Section 8 .
<u>Environmental Disposal Information:</u>	Prevent entry into waterways, sewers, basements or confined areas.
<u>Methods and material for containment and cleaning up:</u>	Pick up and transfer to properly labeled containers. Reclaim or dispose of in accordance with local, state, and federal regulations .

### **7. Handling and Storage:**

<u>Conditions for safe storage, including any incompatibilities:</u>	Keep container tightly closed in a dry and well –ventilated place. Keep away from food, drink and animal feeding stuff.
<u>Precautions to be taken in handling:</u>	Handle in accordance with good industrial hygiene and safety

practice.  
Ensure adequate ventilation, especially in confined areas.  
Avoid contact with skin, eyes or clothing.  
Washing contaminated clothing before reuse.  
Avoid generation of dust.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Do not eat, drink or smoke when using this product.  
Wash thoroughly after handling.  
Use personal protective equipment as required.

Storage:

Keep container tightly closed in a dry and well-ventilated place.  
Keep away from food, drink and animal feeding stuff.

**8. Exposure Controls / Personal Protection**

Control parameters:

No data available.

Derived No effect Level (DNEL):

No information available.

Predicted no effect concentration (PNEC):

No information available.

Exposure Controls

Engineering Controls:

Ensure adequate ventilation, especially in confined areas.

Respiratory Protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

Protective Gloves:

Wear protective gloves.

Eye Protection:

Wear safety glasses with side shields (or goggles) if necessary.

Skin and Body Protection:

Suitable protective clothing.

Environmental exposure controls:

Do not allow into any sewer, on the ground or into any body of water

**9. Physical and Chemical Properties**

Appearance:

Solid powder

Color:

Off white.

Odor:

Odorless

Odor Threshold:

Not determined

pH:

Not determined

Melting point/freezing point:

Decomposes before melting.

Boiling point / boiling range:

Decomposes before boiling.

Flash point:

Not determined

Evaporation rate:

Not determined

Flammability (solid, gas):

Not flammable

Flammability Limit in Air:

Not determined

Vapor Pressure:

0.000000000187 Pa(25 °C)

Vapor density:

Not determined

<u>Density:</u>	0.238 kg/L
<u>Relative density:</u>	Not determined
<u>Specific gravity:</u>	Not determined
<u>Water solubility:</u>	Not determined
<u>Partition coefficient (LogPow):</u>	3.07
<u>Auto ignition temperature :</u>	287 °C
<u>Decomposition temperature:</u>	Not determined
<u>Kinematic viscosity:</u>	Not determined
<u>Dynamic viscosity:</u>	Not determined
<u>Explosive properties:</u>	Fine dust clouds may form explosive mixtures with air.
<u>Oxidizing properties :</u>	Not determined

## 10. Stability and Reactivity

<u>Reactivity:</u>	No information available.
<u>Stability:</u>	This product is stable under normal conditions.
<u>Incompatibility (Materials to Avoid):</u>	Strong oxidizing agents. Strong acids. Nitrate salts.
<u>Conditions to Avoid:</u>	Eliminate all ignition sources. Separate from oxidizing materials.
<u>Possibility of hazardous reactions:</u>	None under normal processing.
<u>Hazardous decomposition products:</u>	Nitrogen oxides (NO <sub>x</sub> ) Carbon oxides (CO <sub>x</sub> ) Oxides of sulfur Metal oxide/oxides

## 11. Toxicological Information

<u>Acute toxicity:</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LC50</u>
<u>Chemical Name</u>			
1,3-dihydro-4(or 5) -methyl-2H-benzimidazole-2- thione, zinc salt (CAS #: 61617-00-3)	800 mg/kg bw	> 2000 mg/kg bw	> 2.12 mg/L air
<u>Skin corrosion/irritation:</u>	Non-irritating to the skin.		
<u>Serious eye damage/eye irritation:</u>	No eye irritation.		
<u>Germ cell mutagenicity:</u>	No information available.		
<u>Carcinogenetic:</u>	Not classified.		
<u>Reproductive toxicity:</u>	Suspected of damaging fertility of the unborn child.		
<u>STOT-single exposure:</u>	No information available.		
<u>STOT –repeated exposure:</u>	Causes damage to organs through prolonged or repeated exposure.		

Aspiration hazard: No information available.

## 12. Ecological Information

Toxicity: No data available

<u>Chemical Name</u>	<u>Algae/aquatic plants EC50</u>	<u>Fish LC50</u>	<u>Crustacea</u>
1,3-dihydro-4(or 5)-methyl-2H-benzimidazole-2-thione, zinc salt (CAS #: 61617-00-3)	-	-	NOEC=0.47 mg/L(48 h)

Persistence and degradability : Not readily biodegradable.

Bioaccumulative potential : No information available.

Mobility in soil: No information available

Results of PBT and vPvB assessment: PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

Other adverse effects : No information available

## 13. Disposal Considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations.  
Empty containers should be taken for local recycling, recovery or waste disposal.

## 14. Transport Information

D.O.T. Shipping Name Not Regulated.

Air - ICAO (international Civil Aviation Organization) UN number 3077  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.( 1,3-dihydro-4(or 5)-methyl-2H-benzimidazole-2-thione, zinc salt)  
Hazard Class 9  
Packing group III

Environmental Hazards: Marine pollutant.

Sea - IMDG (International Maritime Dangerous Goods) UN number 3077  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.( 1,3-dihydro-4(or 5)-methyl-2H-benzimidazole-2-thione, zinc salt)  
Hazard Class 9  
Packing group III

Environmental hazards: Marine pollutant.

## 15. Regulatory Information

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

### International Inventories

Component	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
1,3-dihydro-4-(or 5)-methyl-2H-benzi midazole-2-thione, zinc salt 61617-00-3 ( 98 )	X	X	X	X	X	X	X	X

"-" Not Listed

"X" Listed

Chemical Safety assessment:

No information available.

## 16. Other Information

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

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 users 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.