

**MATERIAL SAFETY DATA SHEET:** According to EC-directive 2001/58/EC**Rubber Accelerator MBT (M)-solvent****HS Code: 38121000.00****1. 化学品及企业标示(CHEMICAL PRODUCT AND COMPANY IDENTIFICATION)**

产品标签名/ Product label name	2-硫醇基苯并噻唑 2-Mercaptobenzothiazole 深圳市华起达实业有限责任公司 Meyor Industrial Co.,Ltd 深圳市罗湖区中兴路, 外贸集团大厦 2610-2611 室
供应商/ Supplier	RM 2610-2611 Foreign Trade Building, Zhong Xing Road Shen Zhen. China TEL: +86-755-82184166 FAX: +86-755-82187033
紧急电话/ Emergency telephone	+86-755-82190130
产品用途/ Intended use	橡胶硫化促进剂/ Rubber Vulcanization accelerator

2. 成分/组成信息(COMPOSITION/INFORMATION ON INGREDIENTS)

化学名/ Chemical name	2-硫醇基苯并噻唑 2-Mercaptobenzothiazole
CAS 编号/ CAS NO.	149-30-4
产品描述/ Chemical description	淡黄色粉末/ Light yellow powder
TSCA NO.编码/ TSCA NO.	无/ none
EINECS 号码/ EINECS NO.	无/ none
其他信息/ Other information	C ₇ H ₅ NS ₂

3. 危险性鉴定(HAZARDS IDENTIFICATION)

3.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS09 Environment
Aquatic Acute 1
Aquatic Chronic 1

H400 Very toxic to aquatic life.
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



Xn; Sensitizing

R43:



N; Dangerous for the environment.

R50/53

Information concerning particular hazards for human and environment: Not applicable.

3.2 Label elements

Labeling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



GHS07



GHS09

Signal word: Warning

Hazard-determining components of labeling: zinc bis (diethyldithiocarbamate)

Hazard statements

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

H317 May cause an allergic skin reaction.

H410 Very Toxic to aquatic life with long lasting effects.

Precautionary statements

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

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves and eye 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/container in accordance with local/regional/national/international regulations

Additional information: Contains zinc bis (zinc bis (diethyldithiocarbamate)). May produce an allergic reaction.

3.3 Information pertaining to special dangers for human and environment

3.3.1.The most important adverse physicochemical effects:

Not applicable.

3.3.2.The most important adverse human health effects:

May cause an allergic skin reaction.

3.3.3.The most important adverse environmental effects:

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

3.3.4. Other adverse hazards



NFPA:Health:3

Flammability:1

Instability:0

4. 急救措施(FIRST AID MEASURES)

症状和效果/ Symptoms and effects	Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. Repeated contact may cause skin sensitization. 粉尘可能吸入呼吸道，从而导致支气管炎。 经常接触可能导致皮肤过敏。
急救/ First aid	
通常情况/ General	In all cases of doubt, or when symptoms persist, seek medical attention. 任何可疑情况，或有任何症状出现，请马上找医生咨询。
吸入/ Inhalation	Move to fresh air. If symptoms persist, seek medical advice. 呼吸新鲜空气。如果有持续症状，请马上就医。 Remove all contaminated clothing immediately. Wash off with plenty of soap and water.
皮肤/ Skin	Seek medical advice if irritation develops. Launder clothes before reuse. 立即移走所有被污染的衣物。用肥皂和清水冲洗。 如果出现愤怒、烦躁症状请立即就医。衣物重新使用前需洗涤干净。 Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to
眼睛/ Eye	ensure thorough rinsing. Seek medical advice if irritation develops. 翻开眼睑用清水冲洗干净。 确保洗除残渣。如果出现愤怒症状请就医。
摄取/ Ingestion	Rinse mouth, give water to drink. 请漱口，喝水。
医生建议/ Advice to physician	No specific recommendations. 无详细建议。

5. 消防措施(FIRE-FIGHTING MEASURES)

灭火媒介/ Extinguishing media	Waterspray, water mist, foam, dry chemical powder, CO ₂ 喷水，水雾，泡沫，干粉灭火器，CO ₂
不适用的灭火媒介 / Unsuitable extinguishing media	Waterjet. 水柱（流）
特殊危险/ Special exposure hazards	Emits toxic fumes under fire conditions. 在火灾情况下释放的有毒烟气。
分解腐烂危险/燃烧产品/ Hazardous decomposition/ combustion products	Carbon monoxide (CO), Sulfur oxides (SO _x), nitrous gases (NO _x). 一氧化碳，硫的氧化物，氮的氧化物。
保护设备/ Protective equipment	Wear self contained breathing apparatus. 需配戴空气呼吸器。
其他信息/ Other information	Do not allow run-off from fire fighting to enter drains or water courses.



避免消防水接触下水道，土地或水源。

6. 泄露应急处理(ACCIDENTAL RELEASE MEASURES)

个人防范/ Personal precautions	For personal protection see Section 8. Avoid dust generation. 对于个人防范请参照第 8 部分。避免粉尘的产生。
环境预防/ Environmental precautions	Avoid discharge into the environment. 避免流入环境之中。
清洁处理方法/ Methods for cleaning up	Collect as much as possible in a clean container for (preferable) reuse or disposal. 尽可能的将其收集在清洁的容器里以便回收或集中处理。

7. 操作处置与储存(HANDLING AND STORAGE)

操作处置/ Handling	Avoid contact with skin. Avoid dust generation. 避免接触皮肤。避免粉尘。 Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition. Kst: 185 bar.m/s. Maximum rate of pressure rise: 1060 bar/s. Maximum corrected explosion pressure: 7.7 bar. 粉尘/空气 混合物可能会引起猛烈的爆炸。 Kst: 185 bar.m/s 最大压力增长速率: 1060 bar/s. 最大爆炸压力修正值 7.7 bar.
火灾爆炸处理/ Fire and explosion prevention	
储存要求/ Storage requirements	Store in a dry and cool place. 储存于干燥与阴凉的地方。

8. 接触控制/个体防护(EXPOSURE CONTROLS/PERSONAL PROTECTION)

工程学控制/ Engineering controls	Avoid dust generation. Ensure good ventilation and local exhaustion of the working area. 避免粉尘产生。确保当地工作场所通风。
暴露限制/ Exposure limits	
名称/ Name: 2-硫醇基苯并噻唑 2-Mercaptobenzothiazole	OES-TWA 5.0 mg/m ³
个体防护/ Personal protection	
呼吸器/ Respiratory	Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment. 避免吸入粉尘。在通风不畅的情况下请佩戴相应的呼吸器。
手/ Hand	Wear suitable gloves. 佩戴相应的长手套。
眼/ Eye	Wear safety goggles.



佩戴防护眼罩。

皮肤和身体/ Skin and body

Wear suitable protective clothing.

穿戴相应的保护服装。

9. 物理和化学特性(PHYSICAL AND CHEMICAL PROPERTIES)

外观/ Appearance	Light-yellow powder 淡黄色粉末	颜色/ Colour	Light-yellow 淡黄
气味/ Odour	Slightly bitter 味苦	沸点/ Boiling point	---
熔点/ Melting point \geq	167 °C	闪点/ Flash point	252 °C
易燃性/ Flammability	---	爆炸极限/ Explosion limits	21g/m ³
爆炸性/ Explosive properties	---	自燃温度/ Auto ignition temperature	650 °C
氧化性/ Oxidizing properties	---	蒸汽压/ Vapour pressure	---
比重/ Density	1.42-1.52g/cm ³ (25 °C)	体积密度/ Bulk density	
溶解性/ Solubility in water	Insoluble in water 不溶于水	在其它溶剂中的溶解性/ Solubility in other solvents	Soluble in acetone CS ₂ 溶于丙酮, CS ₂
PH 值/ pH value	---	分解系数/ Partition coefficient	Active component: 2.42.
Residues (150um)% Max	0.10	Assay content% \geq	96%
筛余物 Max		纯度 % \geq	
粘性/ Viscosity	---		

10. 稳定性和反应性(STABILITY AND REACTIVITY)

稳定性/ Stability	Stable under recommended storage and handling conditions (see section 7). 推荐的稳定储存和搬运条件 (请参照第 7 部分)
应避免的情况/ Conditions to avoid	Heating > 100 °C: May catch fire. 大于 100 °C:可能导致火灾。
应避免的物质/ Materials to avoid	Strong oxidizing agents. 强氧化剂。
腐烂分解毒害性产品/ Hazardous decomposition products	Thermal decomposition products: carbon monoxide (CO), nitrous gases (NO _x), Sulfur oxides (SO _x). 热分解产品: 一氧化碳, 氮的氧化物, 硫的氧化物。

11. 毒理学资料(TOXICOLOGICAL INFORMATION)

名称/ Name	2-硫醇基苯并噻唑/ 2-Mercaptobenzothiazole
敏感性毒害/ Acute toxicity	



口头的/ Oral LD50	老鼠/ rat: 3800 mg/kg.
皮肤的/ Dermal LD50	兔子/ rabbit: >7940 mg/kg.
易愤怒/ Irritation	
皮肤/ Skin	Slightly irritating to skin but not sufficient for classification. 对皮肤有轻微刺激但未达到分级阶段。
眼睛/ Eye	Slightly irritating to eyes but not sufficient for classification. 对眼有轻微刺激但未达到分级阶段。

12. 生态学资料(ECOLOGICAL INFORMATION)

名称/ Name	2-硫醇基苯并噻唑/2-Mercaptobenzothiazole
生态学/ Ecotoxicity	
鱼/ fish	96h-LC50 (Lepomis macrochirus): 1.5mg/l. 96h-LC50 (Oncorhynchus mykiss): 0.75mg/l. 96h-LC50 (Pimephales promelas): 11 mg/l.
水蚤/ daphnia	48h-EC50 (Daphnia magna): 4.1 mg/l.
藻类/ algae	96h-IC50 (Cell count): 0.25 mg/l.
初级生物/ Degradation Biotic	不能被轻易分解/ Not readily biodegradable.

13. 废弃处理(DISPOSAL CONSIDERATIONS)

产品/ Product	Avoid discharge into the environment. Small quantities: According to local regulations. Large quantities: Consult MeyorChemical for special advice. 避免流入环境。 小量: 根据当地规定。 大量: 请联系美尔化工获取建议。
包装污染/ Contaminated packaging	According to local regulations. 根据当地规定。
其他信息/ Other information	Waste code number: Please refer to your specific industry in the European Waste Catalogue. 消耗物代码: 请联系欧洲在消耗物领域的特殊工业。

14. 运输信息(TRANSPORT INFORMATION)

D.O.T. Shipping Name	Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (2-Mercaptobenzothiazole) Packaging group: III
Air - ICAO (international Civil Aviation Organization)	Proper shipping name:Environmentally hazardous substance, solid, n.o.s.



	(2-Mercaptobenzothiazole) Packaging group: III
Sea - IMDG (International Maritime Dangerous Goods)	Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (2-Mercaptobenzothiazole) Packaging group: III

15. 法规信息(REGULATORY INFORMATION)

Chemical safety Assessment has been carried out?:No

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. 其他信息(OTHER INFORMATION)

Relevant R-phrases (number and full text):

R43 May cause sensitization by skin contact.

R50/53 Very toxic to aquatic organisms, may cause

long-term adverse effects in the aquatic environment.

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.