

**MATERIAL SAFETY DATA SHEET:** According to EC-directive 2001/58/EC**Rubber Accelerator MBTS (DM)****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	2,2'-二硫代二苯并噻唑 2,2'-dibenzothiazyl disulfide 深圳市华起达实业有限责任公司 Meyors Chemical INC Limited
供应商/ Supplier	深圳市罗湖区中兴路, 外贸集团大厦 2610-2611 室 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)**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

Classifications listed are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200). The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H400, H410.

Aquatic Acute 1	H400 Very toxic to aquatic life.
Aquatic Chronic 1	H410 Toxic to aquatic life with long lasting effects.
Skin Sens. 1	H317 May cause an allergic skin reaction.

Information concerning particular hazards for human and environment

The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system

The classification is according to the latest editions of the EU-lists, and extended by company and literature data. The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

2.2 Label elements

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H410.

The product is additionally classified and labelled according to the Globally Harmonized System (GHS) within the United States.

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

Hazard pictograms



This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS)



GHS07



GHS09

Signal word: Warning

Hazard-determining components of labeling: di(benzothiazol-2-yl)

disulphide

Hazard statements

Hazard description

WHMIS-symbols



D2B –Toxic material causing other toxic effects.

NFPA ratings (scale 0-4)



Health = 2

Fire = 1

Reactivity = 0

HMIS ratings (scale 0-4)



Health = 2

Fire = 1

Reactivity = 0

HMIS Long Term Health Hazard Substances: Substance is not listed.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3. 危险性鉴定(HAZARDS IDENTIFICATION)

经常接触可能会导致皮肤过敏。对水生有机体有危害，对水生环境可能有长期毒害。

Repeated contact may cause skin sensitization.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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。
皮肤/ Skin	Remove all contaminated clothing immediately. Wash off with plenty of soap and water. 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。
眼睛/ Eye	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to 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	None known 不知。
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)

个人防护/ Personal precautions	For personal protection see Section 8. Avoid dust generation. 对于个人防护请参照第 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. The usual precautions for handling chemicals should be observed.
火灾爆炸处理/ Fire and explosion prevention	避免接触皮肤。避免粉尘。遵循一般化学品的处理方法。 No specific recommendations. 没特别建议
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 2,2'-二硫代二苯并噻唑 2,2'-dibenzothiazyl disulfide	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	Gray white granule 灰白色颗粒	颜色/ Colour	Gray white 灰白
气味/ Odour	----	沸点/ Boiling point	-----
熔点/ Melting point ≥	166.0℃	闪点/ Flash point	----
易燃性/ Flammability	----	爆炸极限/ Explosion limits	----
爆炸性/ Explosive properties	----	自燃温度/ Auto ignition temperature	----
氧化性/ Oxidizing properties	----	蒸汽压/ Vapour pressure	----
比重/ Density	1.45~1.55g/cm ³ (20℃)	体积密度/ Bulk density	----



溶解性/	Insoluble in water	在其它溶剂中的溶解性	Soluble in Benzene, CS ₂
Solubility in water	不溶于水	Solubility in other solvents	溶于苯, CS ₂
PH 值/ pH value	----	分解系数/	4.5
Strength of grain(N)		Partition coefficient	
颗粒强度(N)	0.6-2.5	相对蒸汽密度/ (air=1)	---
粘性/ Viscosity	---	Relative vapour density	
外观/ Appearance	Gray white powder	纯度/Assay content % ≥	95
	灰白色粉末	颜色/ Colour	Gray white
气味/ Odour	----	沸点/ Boiling point	---
熔点/ Melting point ≥	166.0℃	闪点/ Flash point	---
易燃性/ Flammability	----	爆炸极限/ Explosion limits	----
爆炸性/	----	自燃温度/	---
Explosive properties		Auto ignition temperature	
氧化性/	----	蒸汽压/ Vapour pressure	----
Oxidizing properties			
比重/ Density	1.45~1.50g/cm ³ (20℃)	体积密度/ Bulk density	----
溶解性/	Insoluble in water	在其它溶剂中的溶解性	Soluble in Benzene, CS ₂
Solubility in water	不溶于水	Solubility in other solvents	
油含量/Oil content %	1.0-2.0	分解系数/	4.5
Residues (150um)% Max		Partition coefficient	
筛余物	0.10 (Max)	相对蒸汽密度/ (air=1)	---
粘性/ Viscosity	---	Relative vapour density	
		纯度/Assay content % ≥	95

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).
应避免的情况/ Conditions to avoid	推荐的稳定储存和搬运条件 (请参照第 7 部分) 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	No specific recommendations. 无特殊推荐。
腐烂分解毒性产品/ 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	2,2'-二硫代二苯并噻唑/ 2,2'-dibenzothiazyl disulfide
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敏感性毒害/ Acute toxicity

口头的/ Oral LD50 老鼠/ rat: >7940 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 2,2'-二硫代二苯并噻唑/ 2,2'-dibenzothiazyl disulfide

生态学/ Ecotoxicity

鱼/ fish 96h-LC50 (Lepomis macrochirus): 82 mg/l.

96h-LC50 (Oncorhynchus mykiss): 68mg/l.

96h-LC50 (Pimephales promelas): > 1000 mg/l.

水蚤/ daphnia 48h-EC50 (Daphnia magna): 82 mg/l.

藻类/ algae 96h-IC50 (Selenastrum capricornutum): 0.7mg/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 Meyors Chemical 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)

陆运/ Land transport (ADR/ RID)

ADR 等级/ ADR class	9	RID 等级/ RID class	9
ADR/RID 包装组成/	----	危害鉴定号/	90



ADR/RID packing group		Hazard Identification No.	
物质鉴定号/ Substance Identification No.	3077	UN 号 UN number	3077
适当海运名称/ Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s. (2,2-dibenzothiazyl disulfide) 环境危害物质, 固体, n.o.s (2,2-二硫代二苯并噻唑)		
海运/ Sea transport (IMDG-code/ IMO)			
正确的技术名称 Correct technical name	----	IMDG 等级 IMDG Class	----
UN 号码/ UN Number	----	包装组成 Packaging group	----
EMS 号/ EMS Number	----		----
空运/ Air transport (ICAO-TI/ IATA-DGR)			
ICAO-TI/IATA-DGR 等级 ICAO-TI/IATA-DGR Class	9	UN 号 UN number	3077
包装组成 Packing group	Environmentally hazardous substance, Solid 对环境有害的物质, 固体。 Environmentally hazardous substance, solid, n.o.s.		
正确的技术名称 Correct technical name	(2,2'-dibenzothiazyl disulfide) 环境危害物质, 固体, n.o.s (2,2'-二硫代二苯并噻唑)		

15. 法规信息(REGULATORY INFORMATION)

化学品描述/ Chemical description	2,2'-dibenzothiazyl disulfide 2,2'-二硫代二苯并噻唑
标签根据 EC 指标/ Labelling according to EC directives	
EC 号/ EC-number	See section 2 查看第 2 部分
分级标准/ Classification based on	Annex-1 to directive 67/548/EEC 根据 67/548/EEC 指示 R 43 May cause sensitization by skin contact May cause long-term adverse effects in the aquatic environment
危险性短语/ R(isk) phrase(s)	R 43 可能导致皮肤接触加剧。 可能导致对水生环境的长期影响。 S 24 Avoid contact with skin S 37 Wear suitable gloves
安全性短语/ S(afety) phrase(s)	S 60 This material and its container must be disposed of as hazardous waste S 61 Avoid release to the environment. Refer to special



	instructions/Safety data sheets
	S 24 避免接触皮肤。
	S 37 配戴相应的手套。
	S 60 这种物质和其容器必须按照有害物质的原则进行相应处理。
	S 61 避免释放到环境，参照相关指令或安全数据表。
其他信息/ Other information	To be displayed on the label: "EC label". 显示在"EC label"标签上。
Wassergefährdungsklasse (WGK)	2 (VwVwS Anhang 4 Nr. 3)

16. 其他信息(OTHER INFORMATION)

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

这些信息仅仅涉及以上提到的产品，如果用于其他产品或其他过程，本公司不付任何法律责任。这些信息是我们当前最新最好的资料编写而成，值得信任，但我们不能绝对保证没有错误。它仅仅起到提醒使用者自己使这些信息指导相关产品用于适当的地方。