

**MATERIAL SAFETY DATA SHEET:** According to EC-directive 2001/58/EC**Rubber Accelerator ZDEC (EZ)****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	二乙基二硫代氨基甲酸锌 Zinc diethyl dithiocarbamate 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	二乙基二硫代氨基甲酸锌/ Zinc diethyl dithiocarbamate
CAS 编号/ CAS NO.	14324-55-1
产品描述/ Chemical description	白色粉末/ white powder
TSCA NO.编码/ TSCA NO.	无/ none
EINECS 号码/ EINECS NO.	无/ none
其他信息/ Other information	C ₁₀ H ₂₀ N ₂ S ₄ Zn

3. 危险性鉴定(HAZARDS IDENTIFICATION)

Signal Word: WARNING! COMBUSTIBLE DUST – EXPLOSION POTENTIAL! Harmful if swallowed! May cause sensitization by skin contact. Irritating to eyes, respiratory system and skin. Very toxic to aquatic organisms and 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。
	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 喷物，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
特殊的接触危害 Special exposure hazards	Emits toxic fumes under fire conditions. 在火灾条件下释放有毒烟雾。
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. The usual precautions for handling chemicals should be observed. 避免接触皮肤。 避免产生粉尘。 应遵守处理化学品的通常预防措施。
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储存要求/ Storage requirements	Store in a dry and cool place. 储存于干燥与阴凉的地方。
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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。
暴露极限/Exposure limits	
名称/Name 二乙基二硫代氨基甲酸锌/Zinc diethyl dithiocarbamate	OES-TWA 5.0 mg/m ³
个人防护/ 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	White powder 白色粉末	颜色/ Colour	White 白色
气味/ Odour	----	沸点/ Boiling point	----
熔点/Melting point $\geq$	172°C	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	380°C
氧化性/ Oxidizing properties	----	蒸汽压/Vapour pressure	----
比重/ Density	1.41 g/cm ³ (20°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	CS ₂ , benzene CS ₂ , 苯
PH 值/ pH value	----	分解系数/ Partition coefficient	-
Residues (150um)% Max 筛余物	0.10 (Max)	相对蒸汽密度/ (air=1) Relative vapour density	---
粘性/ Viscosity	---	纯度/Assay content % $\geq$	96

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. 加热> 100° C: 可能着火。
应避免的物质/ Materials to avoid	No specific recommendations. 没特别要求。
腐烂分解毒性产品/ Hazardous decomposition products	Thermal decomposition products: carbon monoxide (CO), nitrous gases (NOx), Sulfur oxides (SOx). 热分解产物: 一氧化碳 (CO), 亚硝气 (NOx), 硫氧化物 (SOx)。

11. 毒理学资料(TOXICOLOGICAL INFORMATION)

名称/ Name	二乙基二硫代氨基甲酸锌/ Zinc diethyl dithiocarbamate
敏感性毒害/ Acute toxicity	
口头的/Oral LD50	老鼠/Rat: rat: 700mg/kg.
皮肤的/Dermal LD50	兔子/rabbit: rabbit: 400mg/kg
易愤怒/Irritation	
皮肤/Skin	Slightly irritating to skin but not sufficient for classification. 对皮肤稍有刺激，但不足以进行分类。
眼睛/Eye	Slightly irritating to eyes but not sufficient for classification. 对眼睛稍有刺激，但不足以进行分类。

12. 生态学资料(ECOLOGICAL INFORMATION)

名称/ Name	二乙基二硫代氨基甲酸锌/ Zinc diethyl dithiocarbamate
生态学/ Ecotoxicity	
鱼/ fish	96h-LC50 (Oncorhynchus mykiss): 0.49 mg/l.
水蚤/ daphnia	48h-EC50 (Daphnia magna): 0.24 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 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.

**14. 运输信息(TRANSPORT INFORMATION)**

DOT

Not Regulated

IATA



UN/IN No.

3077

Proper Shipping Name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,
(Zinc diethyl dithiocarbamate)

Hazard Class

9

Packing Group

III

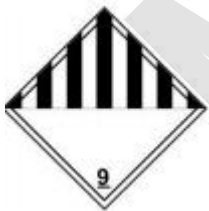
Special Markings:

Symbol (fish and tree)

Note:

EFFECTIVE 01/01/2009: Subject to ICAO/IATA
ENVIRONMENTALLY HAZARDOUS SUBSTANCE marking
requirement [IATA 7.1.6.3]

IMDG



UN/IN No.

3077

Proper Shipping Name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,
(Zinc diethyl dithiocarbamate)

Hazard Class

9

Packing Group

III

Marine Pollutant

No

Special Markings:

Symbol (fish and tree)

TDG (Canada)

See DOT

15. 法规信息(REGULATORY INFORMATION)



化学品描述/Chemical description

Zinc diethyl dithiocarbamate

二乙基二硫代氨基甲酸锌

标签根据 EC 指标/ Labelling according to EC directives

EC 号/ EC-number

232-270-9

分级标准/Classification based on

TESTS



IRRITANT (Xi)



DANGEROUS FOR THE ENVIRONMENT (N)

危险性短语/ R(isk) phrase(s)

R 43 May cause sensitization by skin contact

May cause long-term adverse effects in the aquatic environment

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

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。

安全性短语/ S(afety) phrase(s)

To be displayed on the label: "EC label".

显示在"EC label"标签上。

其他信息/ Other information

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。