

**MATERIAL SAFETY DATA SHEET:** According to EC-directive 2001/58/EC**Rubber Accelerator ZBEC****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	二苄基二硫代氨基甲酸锌 Zinc dibenzyl dithiocarbamate 深圳市华起达实业有限责任公司 Meyors Chemical INC Limited 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	二苄基二硫代氨基甲酸锌 Zinc dibenzyl dithiocarbamate
CAS 编号/ CAS NO.	14727-36-4
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 <sub>30</sub> H <sub>28</sub> N <sub>2</sub> S <sub>4</sub> Zn

**3. 危险性鉴定(HAZARDS IDENTIFICATION)**

## 3.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation:H400,H410.



GHS09 Environment  
Aquatic Acute 1  
Aquatic Chronic 2

H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.



GHS07  
Acute Tox.4  
Skin Irrit. 2  
Eyes Irrit. 2  
Skin Sens. 1  
STOT SE 3

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.



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



Xn; Sensitizing  
R42/43:

May cause sensitization by inhalation and skin contact.



Xi; Irritant  
R36/37/38:

Irritating to eyes, respiratory system and skin.



N; Dangerous for the  
environment.  
R50/53

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

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

### 3.2 Label elements

Labeling according to Regulation (EC) No 1272/2008

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

The substance 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: Zinc dibenzyl dithiocarbamate

Hazard statements

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

H302 Harmful if swallowed

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H410 Very Toxic to aquatic life with long lasting effects.

Precautionary statements

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

P280 Wear protective gloves and eye protection.

P273 Avoid release to the environment.

P264 Wash thoroughly after handling.

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



P272 Contaminated work clothing should not be allowed out of the workplace.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 Specific treatment (see on this label).  
P362 Take off contaminated clothing and wash before reuse  
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
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/physician if you feel unwell.  
P363 Wash contaminated clothing before reuse.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P330 Rinse mouth.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P391 Collect spillage.  
P405 Store locked up.  
P403+P233 Store in well-ventilated place. Keep container tightly closed.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations  
Additional information: Contains Zinc dibenzyl dithiocarbamate. May produce an allergic reaction.

Hazard description

WHMIS-symbols



D2B –Very toxic material causing other toxic effects

NFPA ratings (scale 0-4)



HMIS ratings (scale 0-4)

HEALTH	2
FIRE	1
REACTIVITY	0

Health = 2

Fire = 1

Reactivity = 0

Health = 2

Fire = 1

Reactivity = 0

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

3.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

#### 4. 急救措施(FIRST AID MEASURES)

Dust may be irritating to the respiratory tract and cause symptoms of bronchitis.

症状和效果/ Symptoms and effects

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****吸入/ Inhalation****皮肤/ Skin****眼睛/ Eye****摄取/ Ingestion****医生建议/ Advice to physician**

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。

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.

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

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。

Rinse mouth, give water to drink.

请漱口, 喝水。

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<sub>2</sub>  
喷物, 水雾, 泡沫, 干粉灭火器, CO<sub>2</sub>

**不适用的灭火媒介**

waterjet.

**/ Unsuitable extinguishing media**

水注(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/**

Carbon monoxide (CO), Sulfur oxides (SO<sub>x</sub>), nitrous gases (NO<sub>x</sub>).

**Hazardous decomposition/  
combustion products**

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。

Do not allow run-off from fire fighting to enter drains or water courses.

**其他信息/ Other information**

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

The usual precautions for handling chemicals should be observed.

遵循处理化学物质的一般预防措施。

火灾爆炸处理/

No specific recommendations.

Fire and explosion prevention

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: 二苯基二硫代氨基甲酸锌

Zinc dibenzyl dithiocarbamate

OES-TWA 10.0 mg/m<sup>3</sup> (total inhalable dust)

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	White powder 白色粉末	颜色/ Colour	white 白色
气味/ Odour	---	沸点/ Boiling point	---
熔点/ Melting point $\geq$	180°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	----



氧化性/ Oxidizing properties	----	蒸汽压/ Vapour pressure	----
比重/ Density	1.42 g/cm <sup>3</sup>	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	Acetone, alcohol 丙酮,酒精
PH 值/ pH value		分解系数/ Partition coefficient	
Residues (150um)% Max 筛余物	0.1(Max)	相对蒸汽密度/ (air=1) Relative vapour density	
粘性/ Viscosity		纯度/Assay content % ≥	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	No specific recommendations. 无特殊推荐。
应避免的物质/ Materials to avoid	Oxidizing agents. strong acid.. 氧化剂, 强酸。
腐烂分解毒性产品/ Hazardous decomposition products	No hazardous decomposition products known.. 目前无危险分解品。

**11. 毒理学资料(TOXICOLOGICAL INFORMATION)**

名称/ Name	二苄基二硫代氨基甲酸锌/ Zinc dibenzyl dithiocarbamate
敏感性毒害/ Acute toxicity	
口头的/ Oral LD50	老鼠/ rat: >5000 mg/kg.
皮肤的/ Dermal LD50	兔子/ rabbit: >2000 mg/kg.
易愤怒/ Irritation	
皮肤/ Skin	Practically non-irritating.. 几乎无刺激。
眼睛/ Eye	Minimally irritating.. 轻微刺激。

**12. 生态学资料(ECOLOGICAL INFORMATION)**

名称/ Name	二苄基二硫代氨基甲酸锌/ Zinc dibenzyl dithiocarbamate
生态学/ Ecotoxicity	
鱼/ fish	No effects up to 16 mg/l (Saturated solution)

**13. 废弃处理(DISPOSAL CONSIDERATIONS)**

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

**14. 运输信息(TRANSPORT INFORMATION)****陆运/ Land transport (ADR/ RID)**

<b>ADR 等级/ ADR class</b>	9	<b>RID 等级/ RID class</b>	9
<b>ADR/RID 包装组成/ ADR/RID packing group</b>	----	<b>危害鉴定号/ Hazard Identification No.</b>	90
<b>物质鉴定号/ Substance Identification No.</b>	3077	<b>UN 号/ UN number</b>	3077

Environmentally hazardous substance, solid, n.o.s.

**适当海运名称/ Proper Shipping Name**  
(Zinc dibenzyl dithiocarbamate)  
环境危害物质, 固体, n.o.s  
(二苄基二硫代氨基甲酸锌)

**海运/ Sea transport (IMDG-code/ IMO)**

<b>正确的技术名称/ Correct technical name</b>	----	<b>IMDG 等级/ IMDG Class</b>	----
<b>UN 号码/ UN Number</b>	----	<b>包装组成/ Packaging group</b>	----
<b>EMS 号/ EMS Number</b>	----		----

**空运/ Air transport (ICAO-TI/ IATA-DGR)**

<b>ICAO-TI/IATA-DGR 等级/ ICAO-TI/IATA-DGR Class</b>	9	<b>UN 号/ UN number</b>	3077
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**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**  
(Zinc dibenzyl dithiocarbamate)  
环境危害物质, 固体, n.o.s  
(二苄基二硫代氨基甲酸锌)



**15. 法规信息(REGULATORY INFORMATION)**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
United States (USA)

SARA Section 355 (extremely hazardous substances)	Substance is not listed.
TSCA (Toxic Substances Control Act)	Substance is listed.
Proposition 65 (California)	
Chemicals known to cause cancer	Substance is not listed.
Chemicals known to cause reproductive toxicity for females	Substance is not listed.
Chemicals known to cause reproductive toxicity for males	Substance is not listed.
Chemicals known to cause developmental toxicity	Substance is not listed.
Carcinogenic Categories	
EPA (Environmental Protection Agency)	Substance is not listed.
IARC (International Agency for Research on Cancer)	Substance is not listed.
TLV (Threshold Limit Value established by ACGIH)	Substance is not listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)	Substance is not listed.
OSHA-Ca (Occupational Safety & Health Administration)	Substance is not listed.
Canada	
Canadian Domestic Substances List (DSL)	Substance is listed.
Canadian Ingredient Disclosure list (limit 0.1%)	Substance is not listed.
Canadian Ingredient Disclosure list (limit 1%)	14727-36-4,Zinc dibenzyl dithiocarbamate

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**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。