

**MATERIAL SAFETY DATA SHEET:** According to EC-directive 2001/58/EC**Rubber Accelerator TBzTD****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	二硫化四苄基秋兰姆 Tetrabenzyl Thiuram Disulfide 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	二硫化四苄基秋兰姆 Tetrabenzyl Thiuram Disulfide
CAS 编号/ CAS NO.	10591-85-2
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 <sub>30</sub> H <sub>28</sub> N <sub>2</sub> S <sub>4</sub>

**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  
GHS07

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



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: Tetrabenzyl Thiuram Disulfide

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 Tetra benzyl Thiuram Disulfide. 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)

症状和效果/ Symptoms and effects

May cause alcohol intolerance.

可能导致对酒精的耐性

急救/ First aid

通常情况/ General

Do not drink alcohol after exposure.

和本品接触后不要马上喝酒。



吸入/ Inhalation	Not applicable 不适用。
皮肤/ Skin	Wash off with plenty of soap and water. 用肥皂和清水冲洗。
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 <sub>2</sub> 喷水，水雾，泡沫，干粉灭火器，CO <sub>2</sub>
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	Hydrogen cyanide (HCN), sulphur dioxide (SO <sub>2</sub> ), nitrous gases (NO <sub>x</sub> ). 氰氢酸，二氧化硫，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	Do not flush into public water courses. 不要将废弃物丢弃在公共水域。
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.
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应该遵循处理一般化学物品的预防措施。

火灾爆炸处理/

Fire and explosion prevention

No specific recommendations.

没什么特别建议。

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

No specific recommendations.

没特殊建议。

暴露限制/ Exposure limits

名称/ Name: 二硫化四苄基秋兰姆

Tetrabenzyl Thiuram Disulfide

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

个体防护/ Personal protection

呼吸器/ Respiratory

No specific recommendations.

没详细建议。

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

Odorless

无味

沸点/ Boiling point

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熔点/ Melting point ≥

128℃

闪点/ Flash point

147-149 °C.

易燃性/ Flammability

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爆炸极限/ Explosion limits

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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

----

体积密度/ Bulk density

溶解性/

Insoluble in water

在其它溶剂中的溶解性

Not determined

Solubility in water

不溶于水

Solubility in other solvents

PH 值/ pH value

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分解系数/

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Partition coefficient



<b>Residues (150um)% Max</b>	<b>0.1(Max)</b>	<b>相对蒸汽密度/ (air=1)</b>	
<b>筛余物</b>		<b>Relative vapour density</b>	
<b>Oil Content%</b>	<b>1.0-2.0</b>	<b>纯度/Assay content %</b>	<b>≥ 95</b>
<b>油含量%</b>			

## 10. 稳定性和反应性(STABILITY AND REACTIVITY)

<b>稳定性/ Stability</b>	Stable under recommended storage and handling conditions (see section 7).
<b>应避免的情况/ Conditions to avoid</b>	推荐的稳定储存和搬运条件 (请参照第 7 部分) No specific recommendations.
<b>应避免的物质/ Materials to avoid</b>	无特殊推荐。 Oxidizing agents.
<b>腐烂分解毒性产品/</b>	氧化剂。
<b>Hazardous decomposition products</b>	No hazardous decomposition products known.. 目前所知无危险分解品。

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

<b>名称/ Name</b>	二硫化四苄基秋兰姆/ Tetrabenzyl Thiuram Disulfide
<b>敏感性毒害/ Acute toxicity</b>	
<b>口头的/ Oral LD50</b>	老鼠/ rat: >5000mg/kg.
<b>吸入/inhalation LD50</b>	老鼠/rat 4 hours: >5 mg/l.
<b>易愤怒/ Irritation</b>	
<b>皮肤/ Skin</b>	Practically non-irritating.. 几乎无刺激。
<b>眼睛/ Eye</b>	Practically non-irritating. 几乎无刺激。

## 12. 生态学资料(ECOLOGICAL INFORMATION)

<b>名称/ Name</b>	二硫化四苄基秋兰姆/ Tetrabenzyl Thiuram Disulfide
<b>生态学/ Ecotoxicity</b>	
<b>鱼/ fish</b>	96h-LC50 (Poecilia reticulata): >32 mg/l. 48h-LC50 (Poecilia reticulata):
<b>水蚤/ daphnia</b>	48h-EC50 (Daphnia magna): >100 mg/l.
<b>初级生物/ Degradation</b>	
<b>Biotic</b>	不能被轻易分解/ Not readily biodegradable.

## 13. 废弃处理(DISPOSAL CONSIDERATIONS)

<b>产品/ Product</b>	Avoid discharge into the environment. Small quantities: According to local regulations.
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包装污染/ Contaminated packaging

其他信息/ Other information

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。

According to local regulations.




根据当地规定。

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)



14.1 UN-Number	
DOT, ADR, IMDG, IATA	Not regulated
14.2 UN proper shipping name:	
DOT	Not regulated
ADR	(Tetrabenzyl Thiuram Disulfide)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Tetrabenzyl Thiuram Disulfide), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Tetrabenzyl Thiuram Disulfide)
14.3 Transport hazard class(es)	
DOT Class ADR	Not regulated
 	Label: 9
 	
14.4 Packing group	
DOT	N/A
ADR, IMDG, IATA	---
14.5 Environmental hazards	Product contains environmentally hazardous substances:(Tetrabenzyl Thiuram Disulfide)
Marine pollutant	Yes Symbol (fish and tree)
Special Marking (ADR)	Symbol(fishandtree)
Special Marking (IATA)	Symbol(fishandtree)
14.6.Special precautionsfor user	Warning: Miscellaneousdangeroussubstancesandarticles.
Danger code (Kemler)	----
EMS Number	F-A,S-F
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:Not applicable. Transport/Additional information	
ADR	
Limited quantities (LQ)	5kg
Transport category	3
Tunnel restriction code	E
UN "Model Regulation"	(Tetrabenzyl Thiuram Disulfide)

## 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%)	10591-85-2, Tetrabenzyl Thiuram Disulfide

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。