

**MATERIAL SAFETY DATA SHEET:** According to EC-directive 2001/58/EC**Rubber Antioxidant TMQ(RD)-EHQ****HS Code: 38123100.00****1. 化学品及企业标示(CHEMICAL PRODUCT AND COMPANY IDENTIFICATION)**

产品标签名/ Product label name	2, 2, 4-三甲基-1, 2-二氢化喹啉聚合物 Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline 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	橡胶防老剂/ Rubber Antioxidant
日期/Date	2019-9-29

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

化学名/ Chemical name	2, 2, 4-三甲基-1, 2-二氢化喹啉聚合物 Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline
CAS 编号/ CAS NO.	26780-96-1
产品描述/ Chemical description	琥珀色或棕色颗粒/Amber to brown granule
TSCA NO. 编码/ TSCA NO.	无/ none
EINECS 号码/ EINECS NO.	无/ none
聚合物含量/Polymer Content	98%
杂质/Impurity	2%
其他信息/ Other information	Formula: (C <sub>12</sub> H <sub>15</sub> N) <sub>n</sub> .

**3. 危险性概述(HAZARDS IDENTIFICATION)**

## 3.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The substance is not classified according to the Globally Harmonized System(GHS)

The substance is not classified according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC:Not applicable

Information concerning particular hazards for human and environment:Not applicable



### 3.2 Label elements

Labeling according to Regulation (EC) No 1272/2008:N/A

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

Hazard pictograms:N/A

Signal word: N/A

Hazard statements:N/A

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

Hazard description

WHMIS-symbols:Not hazardous under WHMIS

NFPA ratings (scale 0-4)



Health = 1

Fire = 1

Reactivity = 0

HMIS ratings (scale 0-4)

HEALTH	1
FIRE	1
REACTIVITY	0

Health = 1

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

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

Wash immediately with soap and water.

立即用肥皂和清水冲洗。

#### 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。



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摄取/ Ingestion	Only when conscious, rinse mouth, give plenty of water to drink. Don't induce vomiting. Seek medical advice. 用大量的水清洗嗽口，不引起呕吐，求医。
医生建议/ Advice to physician	No specific recommendations. 无详细建议。

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### 5. 消防措施(FIRE-FIGHTING MEASURES)

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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 / Unsuitable extinguishing media	waterjet. 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。
分解危险/燃烧产品/ Hazardous decomposition/ combustion products	Carbon monoxide (CO), nitrous gases (NO <sub>x</sub> ). 一氧化碳，氮的氧化物。
保护设备/ Protective equipment	Wear self contained breathing apparatus. 需佩戴空气呼吸器。
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。

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

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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	Do not flush into public water courses .Avoid discharge into the environment. 不要用公共水资源冲洗。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。

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### 7. 操作处置与储存(HANDLING AND STORAGE)

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操作处置/ Handling	Avoid dust generation. The usual precautions for handling chemicals should be observed. 避免粉尘。遵守一般化学操作规则。
火灾爆炸处理/ Fire and explosion prevention	Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition. 粉尘/空气 混合物可能会引起猛烈的爆炸。
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。
暴露限制/ Exposure limits	
名称/ Name: 2,2,4-三甲基-1,2-二氢化喹啉聚合物 Polymerized-2,2,4-trimetyl-1,2-dihydroquinoline	no exposure limit has been established
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带相应的呼吸器。
手/ Hand	Wear protective gloves. PVC or rubber gloves. 佩戴能保护的聚乙烯酯或橡胶手套。
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	Brown to amber granule 棕色至琥珀色颗粒	颜色/ Colour	Brown to amber 棕色至琥珀色
气味/ Odor	faint, aromatic 微弱的芳香	沸点/ Boiling point	not applicable 不能提供
熔点/ Melting point	90.0-100.0℃	闪点/ Flash point	243 °C
易燃性/ Flammability	Solid:substance:not (in)flammable.	爆炸极限/ Explosion limits	not applicable 不能提供
爆炸性/ Explosive properties	Dust:dust-explosion hazard( 灰尘爆炸危险)	自燃温度/ Autoignition temperature	not applicable 不能提供
氧化性/ Oxidizing properties	not applicable 不适用	蒸汽压/ Vapour pressure	Negligible 可忽略
比重/ Specific Gravity	1.09 g/cm <sup>3</sup> (20 °C)	体积密度/ Bulk density	
灰份/ Ash content (%)	≤0.50	加热减量/ Loss on drying(%)	≤0.70
单体含量/ Monomer Content (%)	Approx 3	脂肪胺/ Primary Amines (%)	Approx 8
异丙基苯胺/ Isopropyl bis Anilin %	Approx 2.5	粘性/ Viscosity	not applicable/不能提供
Streng of grain(N) 颗粒强度(N)	0.6-2.5		

**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	Heat, sources of heat,naked flames,sparks 热源, 火源, 火花
应避免的物质/ Materials to avoid	strong oxidising agents 强氧化剂
分解毒性产品/ Hazardous decomposition products	Thermal decomposition products: carbon monoxide (CO),nitrous gases (NOx).. 热分解产品: 一氧化碳, 氮的氧化物。

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

名称/ Name	2, 2, 4-三甲基-1, 2-二氢化喹啉聚合物 Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline
敏感性毒害/ Acute toxicity	
口头的/ Oral LD50	老鼠/ rat: 2225 mg/kg.
皮肤的/ Dermal LD50	兔子/ rabbit: <5010 mg/kg.
易愤怒/ Irritation	
皮肤/ Skin	Non- irritating to skin . 对皮肤没有刺激。
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, 4-三甲基-1, 2-二氢化喹啉聚合物 Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline
生态学/ Ecotoxicity	
鱼/ fish	96h-LC50 (Lepomis macrochirus): 54 mg/l. 96h-LC50 (Oncorhynchus mykiss): 50 mg/l. 96h-LC50 (Pimephales promelas): 64mg/l.
水蚤/ daphnia	48h-EC50 (Daphnia magna): 5.8 mg/l.
藻类/ algae	96h-IC50 (Selenastrum capricornutum): > 1000 mg/l.
Fate	
初级生物/ Degradation	不能被轻易分解/ Not readily biodegradable.
Biotic	

**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。 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。
其他信息/ Other information	

### 14. 运输信息(TRANSPORT INFORMATION)

14.1 UN-Number	
DOT, ADR, IMDG, IATA	N/a
14.2 UN proper shipping name:	
DOT, ADR, IMDG, IATA	N/A
14.3 Transport hazard class(es)	
DOT, IMDG, IATA	<b>N/A</b>
14.4 Packing group	
DOT,ADR, IMDG, IATA	<b>N/A</b>
14.5 Environmental hazards	
Marine pollutant	<b>NO</b>
14.6.Special precautions for user	Not applicable
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
Transport/Additional information	

### 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.
SARA Section 313 (Specific toxic chemical listings)	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.



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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%)	Substance is not listed.

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

## 16. 其他信息(OTHER INFORMATION)

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

GHS: Globally Harmonized System of Classification and Labeling of Chemicals  
ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System

(Canada) DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)