

**MATERIAL SAFETY DATA SHEET:** According to EC-directive 2001/58/EC**Rubber Antioxidant TMQ(RD)****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	橡胶添加剂 TMQ Rubber Additives TMQ 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 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
生产商/ Manufacturer	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)**

悬浮的灰尘在空中容易燃烧。对水生有机体有 Dust suspended in air ignites easily.



危害，对水生环境可能有长期毒害。

Harmful 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	Wash immediately with soap and water. 立即用肥皂和清水冲洗。 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	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。

#### 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 / 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。



### 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 .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。

### 7. 操作处置与储存(HANDLING AND STORAGE)

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。

### 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	no exposure limit has been established
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	
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	Amber to brown granule	颜色/ Colour	Amber to brown 琥珀色或棕色
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	琥珀色或棕色颗粒		
气味/ Odor	faint, aromatic 微弱的芳香	沸点/ Boiling point	not applicable 不能提供
熔点/ Melting point	80.0-100.0 °C	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/ Density	1.100 g/cm <sup>3</sup> (20 °C)	体积密度/ Bulk density	
溶解性/ Solubility in water	0.0025-0.0032 kg/m <sup>3</sup> (25 °C)	在其它溶剂中的溶解性 Solubility in other solvents	Acet,benzene,chloroform, carbon bisulfide
PH 值/ pH value	approx.7(Aqueous dispersion)	分解系数/ Partition coefficient	Log Pow = 3.22
n-octanol/water	not applicable 不能提供	相对蒸汽密度/ (air=1) Relative vapour density	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	橡胶添加剂 TMQ Rubber Additives TMQ
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**

橡胶添加剂 TMQ

Rubber Additives TMQ

**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): &gt; 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。

**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**

Not regulated

**RID 等级/ RID class**

Not regulated

**ADR/RID 包装组成/**

Not regulated

**危害鉴定号/**

Not regulated

**ADR/RID packing group****Hazard Identification No.**



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物质鉴定号/ <b>Substance Identification No.</b>	Not regulated	UN 号 <b>UN number</b>	Not regulated
适当海运名称/ <b>Proper Shipping Name</b>	(Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline) (2, 2, 4-三甲基-1, 2-二氢化喹啉聚合物)		
<b>海运/ Sea transport (IMDG-code/ IMO)</b>			
正确的技术名称 <b>Correct technical name</b>	---	IMDG 等级 <b>IMDG Class</b>	Not regulated
UN 号码/ <b>UN Number</b>	Not regulated	包装组成 <b>Packaging group</b>	Not regulated
EMS 号/ <b>EMS Number</b>	Not regulated		---
<b>空运/ Air transport (ICAO-TI/ IATA-DGR)</b>			
ICAO-TI/IATA-DGR 等级 <b>ICAO-TI/IATA-DGR Class</b>	Not regulated	UN 号 <b>UN number</b>	---
包装组成 <b>Packing group</b>	Not regulated		
正确的技术名称 <b>Correct technical name</b>	(Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline) (2, 2, 4-三甲基-1, 2-二氢化喹啉聚合物)		

### 15. 法规信息(REGULATORY INFORMATION)

化学品描述/ <b>Chemical description</b>	Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline 2, 2, 4-三甲基-1, 2-二氢化喹啉聚合物
标签根据 EC 指标/ <b>Labelling according to EC directives</b>	
EC 号/ <b>EC-number</b>	See section 2 查看第 2 部分
分级标准/ <b>Classification based on</b>	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/ <b>R(isk) phrase(s)</b>	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
安全性短语/ <b>S(afety) phrase(s)</b>	S 61 Avoid release to the environment. Refer to special instructions/Safety data sheets S 24 避免接触皮肤。 S 37 佩戴相应的手套。 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。



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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 3, Nr. 1318)

### 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。

Meyors