

## MATERIAL SAFETY DATA SHEET

: According to EC-directive 2001/58/EC

Rubber Antioxidant TMQ(RD)HQ

HS Code: 38123100.00

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Product label name</b>	Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline Qingdao YLSCH Industry&Trade Co.,Ltd
<b>Supplier</b>	Room 501,2-3 Unit. No.8,Zhengzhou Road, Qingdao,China. TEL: +86 18661665800
<b>Emergency telephone</b>	TEL: +86 18661665800
<b>Intended use</b>	Rubber Antioxidant

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Chemical name</b>	Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline
<b>CAS NO.</b>	26780-96-1
<b>Chemical description</b>	Amber to brown granule
<b>TSCA NO.</b>	none
<b>EINECS NO.</b>	none
<b>Other information</b>	(C <sub>12</sub> H <sub>15</sub> N) <sub>n</sub>

### 3. HAZARDS IDENTIFICATION

Dust suspended in air ignites easily. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 4. FIRST AID MEASURES

<b>Symptoms and effects</b>	Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. Repeated contact may cause skin sensitization.
<b>First aid</b>	
<b>General</b>	In all cases of doubt, or when symptoms persist, seek medical attention.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, seek medical advice.
<b>Skin</b>	Wash immediately with soap and water.
<b>Eye</b>	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing.

<b>Ingestion</b>	Seek medical advice if irritation develops. Only when conscious, rinse mouth, give plenty of water to drink. Don't induce vomiting. Seek medical advice.
<b>Advice to physician</b>	No specific recommendations.

## 5. FIRE-FIGHTING MEASURES

<b>Extinguishing media</b>	Waterspray, water mist, foam, dry chemical powder, CO <sub>2</sub>
<b>Unsuitable extinguishing media</b>	Waterjet
<b>Special exposure hazards</b>	Emits toxic fumes under fire conditions.
<b>Hazardous decomposition/ Combustion products</b>	Carbon monoxide (CO), nitrous gases (NO <sub>x</sub> ).
<b>Protective equipment</b>	Wear self contained breathing apparatus.
<b>Other information</b>	Do not allow run-off from fire fighting to enter drains or water courses.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	For personal protection see Section 8. Avoid dust generation.
<b>Environmental precautions</b>	Do not flush into public water courses .Avoid discharge into the environment. Collect as much as possible in a clean container for
<b>Methods for cleaning up</b>	(preferable) reuse or disposal.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid dust generation. The usual precautions for handling chemicals should be observed.
<b>Fire and explosion prevention</b>	Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition.
<b>Storage requirements</b>	Store in a dry and cool place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering controls</b>	Avoid dust generation.Ensure good ventilation and local exhaustion of the working area.
<b>Exposure limits</b>	
<b>Name:</b> Polymerized-2,2,4-trimetyl-1,2-dihydroquinoline	No exposure limit has been established
<b>Personal protection</b>	
<b>Respiratory</b>	Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Hand</b>	Wear protective gloves. PVC or rubber gloves.



Eye	Wear safety goggles.
Skin and body	Wear suitable protective clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Amber to brown granule	<b>Colour</b>	Amber to brown
<b>Odour</b>	faint, aromatic	<b>Boiling point</b>	----
<b>Melting point</b> ≥	90.0-100.0℃	<b>Flash point</b>	243℃
<b>Flammability</b>	Solid:substance:not (in)flammable.	<b>Explosion limits</b>	----
<b>Explosive properties</b>	Dust:dust-explosion hazard	<b>Decomposition temperature</b>	----
<b>Oxidizing properties</b>	not applicable	<b>Vapour pressure</b>	Negligible
<b>Density</b>	1100 kg/m <sup>3</sup> (20 °C)	<b>Bulk density</b>	600-630 kg/m <sup>3</sup>
<b>Solubility in water</b>	0.0025-0.0032 kg/m <sup>3</sup> (25℃)	<b>Solubility in other solvents</b>	Acet,benzene,chloroform, carbon bisulfide
<b>pH value</b>	approx.7(Aqueous dispersion)	<b>Partition coefficient</b>	Log Pow = 3.22
<b>Residues (150um)% Max</b>	----	<b>Heating Loss % Max</b>	----
<b>Viscosity</b>	----	<b>Assay content % ≥</b>	----
<b>Strrength of grain (N)</b>	0.6-2.5	<b>Zinc content %</b>	----

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under recommended storage and handling conditions (see section 7).
<b>Conditions to avoid</b>	Heat,sources of heat,naked flames,sparks
<b>Materials to avoid</b>	Strong oxidising agents
<b>Hazardous decomposition products</b>	Thermal decomposition products: carbon monoxide (CO), nitrous gases (NOx).

**11. TOXICOLOGICAL INFORMATION**

<b>Name</b>	Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline
<b>Acute toxicity</b>	
<b>Oral LG50</b>	rat: 2225mg/kg.
<b>Dermal LD50</b>	rabbit: <5010 mg/kg.
<b>Irritation</b>	
<b>Skin</b>	Non- irritating to skin .
<b>Eye</b>	Slightly irritating to eyes but not sufficient for classification.

## 12. ECOLOGICAL INFORMATION

<b>Name</b>	Polymerized-2,2,4-trimetyl-1,2-dihydroquinoline
<b>Ecotoxicity</b>	
	96h-LC50 (Lepomis macrochirus): 54 mg/l.
<b>Fish</b>	96h-LC50 (Oncorhynchus mykiss): 50 mg/l.
	96h-LC50 (Pimephales promelas): 64mg/l.
<b>Daphnia</b>	48h-EC50 (Daphnia magna): 5.8 mg/l.
<b>Algae</b>	96h-IC50 (Selenastrum capricornutum): > 1000mg/l.
<b>Fate</b>	
<b>Degradation Biotic</b>	Not readily biodegradable.

## 13. DISPOSAL CONSIDERATIONS

<b>Product</b>	Avoid discharge into the environment Small quantities: According to local regulations. Large quantities: Consult YLSCH Chemical for special advice.
<b>Contaminated packaging</b>	According to local regulations. Waste code number: Please refer to your specific industry
<b>Other information</b>	in the European Waste Catalogue.

## 14. TRANSPORT INFORMATION

<b>Land transport (ADR/ RID)</b>			
<b>ADR class</b>	----	<b>RID class</b>	----
<b>ADR/RID packing group</b>	III	<b>Hazard Identification No.</b>	----
<b>Substance Identification No.</b>	3077	<b>UN number</b>	3077
<b>Proper Shipping Name</b>	Environmentally hazard us substance, solid, n.o.s. (Polymerized-2,2,4-trimetyl-1,2-dihydroquinoline)		
<b>Sea transport (IMDG-code/ IMO)</b>			
<b>Correct technical name</b>	----	<b>IMDG Class</b>	
<b>UN Number</b>	----	<b>Packaging group</b>	
<b>EMS Number</b>	----		
<b>Air transport (ICAO-TI/ IATA-DGR)</b>			
<b>ICAO-TI/IATA-DGR Class</b>	----	<b>UN number</b>	----
<b>Packing group</b>	Environmentally hazardous substance, solid, n.o.s.		
<b>Correct technical name</b>	(Polymerized-2,2,4-trimetyl-1,2-dihydroquinoline)		

**15. REGULATORY INFORMATION**

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<b>Chemical description</b>	Polymerized-2,2,4-trimethyl-1,2-dihydroquinoline
<b>Labelling according to EC directives</b>	
<b>EC-number</b>	See section 2
<b>Classification based on</b>	Annex-1 to directive 67/548/EEC
<b>R(isk) phrase(s)</b>	R 43 May cause sensitization by skin contact May cause long-term adverse effects in the aquatic environment.
<b>S(afety) phrase(s)</b>	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
<b>Other information</b>	To be displayed on the label: "EC label".
<b>Wassergefährdungsklasse (WGK)</b>	2 (VwVwS Anhang 3, Nr. 1318)

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**16. OTHER INFORMATION**

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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.

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