



**Kemai(Tianjin) Chemical Technical Co.,Ltd.**

**Gongnong Village, Gulin Street, Dagang Dist, Tianjin 300272, China**

**Kemai** Tel: 022-24373333 022-24370313 Fax: 022-24379994

## MATERIAL SAFETY DATA SHEET

**Revision Date:** 08/22/2011

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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product label name** 2,2,4-Trimethyl-1,2-dihydroquinoline, polymerized

**Supplier** KEMAI (Tianjin) CHEMICAL TECHNICAL CO., LTD.

Gongnong Village, Gulin Street, Dagang Dist, Tianjin P. R. CHINA

Tel: (022) 24373333,

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**Intended use** Antioxidant

### 2. HAZARDS IDENTIFICATION

Dust suspended in air ignites easily.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a substance in conformance to EC directives.

Information on hazardous ingredients

**Chemical description** 2,2,4-Trimethyl-1,2-dihydroquinoline, polymerized

#### Composition / information on ingredients

Number	% w/w	CAS-number	Chemical name
1	>97	26780-96-1	2,2,4-Trimethyl-1,2-dihydroquinoline polymer Synonym(s): 1,2-Dihydro-2,2,4-trimethylquinoline, oligomers

Number	EC-number	Annex-1 number	Symbol(s) (EU classification)	Risk-phrase(s)
1	500-051-3		none	R52/53

**Other information** Formula: (C<sub>12</sub>H<sub>15</sub>N)<sub>n</sub>.

### 4. FIRST AID MEASURES

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

#### First aid

**General** In all cases of doubt, or when symptoms persist, seek medical attention.

**Inhalation** Move to fresh air. If symptoms persist, seek medical advice.

**Skin** Wash immediately with soap and water.

**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.

**Ingestion** Rinse mouth, give water to drink.

**Advice to physician** No specific recommendations.

### 5. FIRE-FIGHTING MEASURES

**Extinguishing media** waterspray, water mist, foam, dry chemical powder, CO<sub>2</sub>

**Unsuitable extinguishing media** waterjet.

**Special exposure hazards** Emits toxic fumes under fire conditions.

**Hazardous decomposition/**



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**combustion products**

carbon monoxide (CO), nitrous gases (NO<sub>x</sub>).

**Protective equipment** Wear self contained breathing apparatus.

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

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions** For personal protection see Section 8. Avoid dust generation.

**Environmental precautions** Do not flush into public water courses. Avoid discharge into the environment.

**Methods for cleaning up** Collect as much as possible in a clean container for (preferable) reuse or disposal.

**7. HANDLING AND STORAGE**

**Handling** Avoid dust generation. The usual precautions for handling chemicals should be observed.

**Fire and explosion prevention** No specific recommendations.

**Storage requirements** Store in a dry and cool place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering controls** Avoid dust generation.

**Exposure limits** No exposure limit has been established.

**Name**

**2,2,4-Trimethyl-1,2-dihydroquinoline polymer**

In this country no exposure limit has been established

**Personal protection**

**Respiratory** Avoid breathing dust.

**Hand** Wear protective gloves.

**Eye** Wear safety goggles.

**Skin and body** Wear suitable protective clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance** pastilles

**Colour** light brown

**Odour** faint, aromatic

**Boiling point/range** not determined

**Melting point/range** min. 83 °C

**Flash point** 243 °C (Cleveland, open cup)

**Flammability** solid substance: not (in)flammable.

**Autoignition temperature** not determined

**Explosive properties** dust: dust explosion hazard.

**Explosion limits** LEL: < 10 mg/l (dust).

**Oxidizing properties** not applicable

**Vapour pressure** negligible

**Density** 1100 kg/m<sup>3</sup> (20 °C)

**Bulk density** 600-630 kg/m<sup>3</sup>

**Solubility in water** 0.0025 - 0.0032 kg/m<sup>3</sup> (25 °C)



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**Solubility in other solvents** Ethanol, acetone, toluene

**pH value** approx. 7 (Aqueous dispersion)

**Partition coefficient**

**n-octanol/water**

3.22

**Relative vapour density (air=1)** not applicable

**Viscosity** not applicable

## 10. STABILITY AND REACTIVITY

**Stability** Stable under recommended storage and handling conditions (see section 7).

**Conditions to avoid** No specific recommendations.

**Materials to avoid** No specific recommendations.

**Hazardous decomposition**

**products**

Thermal decomposition products: carbon monoxide (CO), nitrous gases (NO<sub>x</sub>).

## 11. TOXICOLOGICAL INFORMATION

**Name** 2,2,4-Trimethyl-1,2-dihydroquinoline polymer

**Acute toxicity**

**Oral LD50** rat: 2225 mg/kg.

**Dermal LD50** rabbit: >5010 mg/kg.

**Irritation**

**Skin** Non-irritating

**Eye** Slightly irritating to eyes but not sufficient for classification.

**Sensitization** Patch testing (Human experience): May cause sensitization in susceptible individuals.

**Genotoxicity** Not mutagenic (in vitro)

## 12. ECOLOGICAL INFORMATION

**Name** 2,2,4-Trimethyl-1,2-dihydroquinoline, polymerized

**Ecotoxicity**

**fish** 96h-LC50 (*Lepomis macrochirus*): 54 mg/l.

96h-LC50 (*Oncorhynchus mykiss*): 50 mg/l.

96h-LC50 (*Pimephales promelas*): 64 mg/l.

**daphnia** 48h-EC50 (*Daphnia magna*): 5.8 mg/l.

**algae** 96 h-EC50 (Cell count): > 1000 mg/l.

**Fate**

**Degradation Biotic** CO<sub>2</sub> evolution: 8 %.

Not readily biodegradable.

## 13. DISPOSAL CONSIDERATIONS

**Product** Small quantities: According to local regulations (most probably controlled incineration).

Large quantities: Consult KEMAI for special advice.

**Contaminated packaging** According to local regulations.

## 14. TRANSPORT INFORMATION

*Land transport (ADR/ RID)*

**ADR class** not restricted

**RID class** not restricted **ADR/RID packing group** not relevant



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**Hazard Identification No.** not relevant **Substance Identification No.** not relevant

**TREM-Card** not relevant **UN number** none

**Proper Shipping Name** not relevant

*Sea transport (IMDG-code/ IMO)*

**IMO/IMDG code** not relevant **Class** not restricted

**Packing group** not relevant **UN number** none

**EMS** not relevant **Subsidiary Risk** not relevant

**Marine pollutant** no

**Proper Shipping Name** not relevant

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

**ICAO-TI/IATA-DGR UN number** none

**Class** not restricted **Packing group** not relevant

**Proper Shipping Name** not relevant

## 15. REGULATORY INFORMATION

**Chemical description** 2,2,4-Trimethyl-1,2-dihydroquinoline, polymerized

Labelling according to EC directives

**EC-number** See section 3

**Classification based on Tests**

**Symbol(s) (EU classification)** none

**R(isk) phrase(s) (EU classification)** R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

**S(afety) phrase(s) (EU classification)** S 61 Avoid release to the environment. Refer to special instruction/Safety data sheet

**German Water Hazard Class (WGK)** 2 (VwVwS Anhang 2 Nr.1318)

## 16. 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.

R-phrase information

Chemical name

Risk-phrase(s)

2,2,4-Trimethyl-1,2-dihydroquinoline  
polymer

R52/53 Harmful to aquatic organisms, may cause long-term  
adverse effects in the aquatic environment

Synonym(s):

1,2-Dihydro-2,2,4-trimethylquinoline,  
oligomers

\*\*\* END OF MSDS \*\*\*