MATERIAL SAFTY DATA SHEET

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,

Fax: (022) 24379994, 24370313

Emergency telephone + 86 22 24783266 (Fax. + 86 22 24783266)

Intended use Antioxidant

2. 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

CAS-number 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) Risk-phrase(s)

1 500-051-3 none none

Other information Formula: (C12H15N)n.

3. HAZARDS IDENTIFICATION

Not classified as hazardous according to the EEC Dangerous Substance Directive and Dangerous Preparation Directive.

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, CO2

Unsuitable extinguishing media waterjet.

Special exposure hazards Emits toxic fumes under fire conditions.

Hazardous decomposition/

combustion products

carbon monoxide (CO), nitrous gases (NOx).

Protective equipment Wear self contained breathing apparatus.



Kemai(Tianjin) Chemical Technical Co.,Ltd.

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

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

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-dihydroquinoli

ne 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/m³ (20 °C)

Bulk density 600-630 kg/m³

Solubility in water 0.0025 - 0.0032 kg/m³ (25 °C)

Solubility in other solvents Ethanol, acetone, toluene

pH value approx. 7 (Aqueous dispersion)

Partition coefficient



Kemai(Tianjin) Chemical Technical Co.,Ltd.

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

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

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 (NOx).

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 CO2 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

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

TREM-Card not relevant UN number none

Proper Shipping Name not relevant



Kemai(Tianjin) Chemical Technical Co.,Ltd.

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

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

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 2

Classification based on Tests

Symbol(s) none

R(isk) phrase(s) none

S(afety) phrase(s) none

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.

*** END OF MSDS ***