



KEMAI Chemical Co., Ltd.

No.72 Haixin Road,Gulin Industry Zone,Dagang,Binhai New Dist,Tianjin P.R.CHINA

Tel: +86 22-24711698 63349929 Fax: +86 22 24379994

Safety Data Sheet

According to Regulation (EU) No. 1907/2006, Annex II,

According to Regulation (EU) No. 1272/2008,

Amended by REGULATION (EU) No 453/2010

TMQ

SDS Record Number: C555-TCO-010-100018

Version 1.1

Revision date: 23/01/2011

Printing date: 23/01/2011

1 Identification of the substance and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name: TMQ
Additional identification: 2,2,4-Trimethyl-1,2-dihydroquinoline, polymerized
Identification of the product: CAS#26780-96-1; EC#500-051-3
Index Number: Not available
REACH registration No.: Not available

1.2 Relevant identified uses of the substance and uses advised against:

1.2.1 Identified uses:

Used as rubber antioxidant.

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): Chemical Inspection & Regulation Service Limited
Supplier(Manufacturer): KEMAI Chemical Co.,Ltd.
Address: No.72 Haixin Road,Gulin Industry Zone,Dagang,Binhai New Dist,Tianjin P.R.CHINA
Contact person(E-mail): plants@tjkemai.com
Telephone: +86 22 24711698
Fax: +86 22 24379994

1.4 Emergency telephone Number:

+353 41 980 6916

Available outside office hours?

YES

NO

2 Hazards Identification

2.1 Classification of the substance

2.1.1 Classification:

The substance is classified as following according to 67/548/EEC and REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008

Hazard classes/Hazard categories	Hazard statement
Aquatic Chronic 3	H412

For full text of H- phrases: see section 2.2.

67/548/EEC

Hazards characteristics	R-Phrases
-	R52/53

For full text of R- phrases: see section 16.

2.1.2 The most important adverse effects

2.1.2.1 The most important adverse physicochemical effects:

Not applicable.

2.1.2.2 The most important adverse human health effects:

Not applicable.

2.1.2.3 The most important adverse environmental effects:

Very toxic to aquatic life with long lasting effects.

2.2 label elements

Hazard Pictograms: No pictogram is used.
Signal Word(S): No signal word is used.
Hazard Statement: H412: Harmful to aquatic life with long lasting effects.
Precautionary Statement: P273 Avoid release to the environment.
P501 Dispose of contents/container to local/state/international regulations.

2.3 Other hazards

Not available (PBT,vPvB, Substance is an endocrine disruptor etc.)

3 Composition/information on ingredients

Substance/Mixture: Substance

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
1,2-Dihydro-2,2,4-trimethylquinoline , oligomers	N/A	26780-96-1	500-051-3	100%

4 First aid measures

4.1 Description of first aid measures:

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

4.1.1 In case of inhalation:

Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

4.1.2 In case of skin contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

4.1.3 In case of eyes contact:

Remove contact lenses. Hold eyelids apart. Flush immediately with water for at least 15 minutes. Seek medical attention.

4.1.4 In case of ingestion:

Rinse mouth. Give water to drink. Induce vomiting. Never induce vomiting in unconscious or confused persons. Always seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

The product is not classified as harmful to human health effect.

4.3 Indication of any immediate medical attention and special treatment needed

If skin irritation or rash occurs, get medical advice/attention.

5 Fire-Fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Water mist, foam, dry chemical powder, carbon dioxide.

Unsuitable extinguishing media: Do not direct a solid stream of water into burning molten polymers due to possibility of spattering and spread of fire.

5.2 Special hazards arising from the substance or mixture

Emits toxic fumes under fire conditions, and carbon monoxide (CO), nitrous gases (NOx).

5.3 Advice for fire-fighters:

Firefighters should use self-contained breathing equipment and protective clothing. Do not allow run-off from fire fighting to enter drains or water courses. Fight fire from a safe distance and from a protected location.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Wear approved respiratory protection, chemically compatible gloves and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Place spillage in appropriately-labelled container for disposal. Work only with non-sparking tools and equipment.

6.1.2 For emergency responders:

Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.

6.2 Environmental Precautions:

Avoid disposing into drainage/sewer system or directly into the aquatic environment. Keeping away from drains, surface-and ground-water and soil.

6.3 Methods for Containment and Cleaning up:

Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Do not let this chemical enter the environment.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

6.5 Additional information:

Wet clean or vacuum up solids.

Don't use a brush or compressed air for cleaning surfaces or clothing.

Clear spills immediately.

7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Avoid contact with skin and eyes. Avoid dust generation. Take precautionary measures against static discharges.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Avoid exposure to direct sunlight.

7.3 Specific end use(s):

Not applicable.

8 Exposure control/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure limits: Not available.

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Adequate ventilation should be provided to keep dust concentrations below acceptable exposure limits. Discharge

from the ventilation system should comply with the applicable air pollutions control regulations. Eliminate ignition sources.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection	Wear appropriate goggles to prevent eye exposure.
Hand protection	Wear appropriate gloves to prevent skin exposure.
Body protection	Wear suitable protective clothing to prevent skin exposure.
Respiratory protection	Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.
Thermal hazards	Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls:

Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste.

According to local regulations, Federal and official regulations.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Pastilles
Colour:	Light brown
Odour:	Faint, aromatic
Odour threshold:	Not available
pH:	7
Melting point/range (°C):	<83°C
Boiling point/range (°C) :	not determined
Flash point (°C) :	243°C
Evaporation rate:	Not determined
Flammability (solid, gas);	Not determined
Ignition temperature (°C) :	Not determined
Upper/lower flammability/explosive limits:	Lower: <10mg/l(dust)
Vapour pressure (20°C) :	Negligible at room temperatures
Vapour density:	Not applicable
Relative Density (25°C):	1.1
Bulk density (kg/m ³) :	600-630
Water solubility (g/l) :	0.0025 - 0.0032 kg/m ³ (25 °C)
n-Octanol/Water (log Po/w) :	3.22
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic (mPa s) :	Not determined
Explosive properties:	Not applicable
Oxidising properties:	Not applicable

9.2. Other information:

Fat solubility(solvent– oil to be specified) etc:	Not available
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

10 Stability and reactivity

10.1 Reactivity:

The substance is stable under normal storage and handling conditions.

10.2 Chemical stability:

Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation.

10.3 Possibility of hazardous reactions:

Under normal conditions, not hazardous reactions will occur.

10.4 Conditions to avoid:

Keep away from heat, sparks and flame.

10.5 Incompatible materials:

No specific recommendations.

10.6 Hazardous decomposition products:

Thermal decomposition products: carbon monoxide (CO), nitrous gases (NOx).

11 Toxicological information

11.1 Toxicokinetics, metabolism and distribution

Non-human toxicological data:	Not available
Method:	Not available
Dosis:	Not available
Routes of administration:	Not available
Results:	Not available
Absorption:	Not available
Distribution:	Not available
Metabolism:	Not available
Excretion:	Not available

11.2 Information on toxicological effects

Acute toxicity:	
LD50(Oral, Rat):	2225 mg/kg
LD50(Dermal Rabbit):	>5010 mg/kg
LD50(Inhalation, Rat):	Not available
Skin corrosion/Irritation:	Slightly irritating to skin but not sufficient for classification.
Serious eye damage/irritation:	Slightly irritating to eyes but not sufficient for classification.
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

12 Ecological information

Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	54 mg/l	96h	Fish(Lepomis macrochirus)	OECD 203	N/A	N/A
LC50	5.8 mg/l	48h	Daphnia	OECD 202	N/A	N/A
EC50	> 1000mg/l	96h	Algae	OECD 201	N/A	N/A

Persistence and degradability:	Not readily biodegradable.
Bioaccumulative potential:	Not applicable.
Mobility in soil:	Not available.
Results of PBT&vPvB assessment:	Not available.

Other adverse effects: Not applicable.

13 Disposal considerations

13.1 Waste treatment methods

Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste.
According to local regulations, Federal and official regulations.

13.2 Product / Packaging disposal:

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations. .

14 Transport information

	<i>Land transport (ADR/RID)</i>	<i>Sea transport (IMDG)</i>	<i>Air transport (ICAO/IATA)</i>
UN-Number:	Not Regulated	Not Regulated	Not Regulated
UN Proper shipping name:	Not Regulated	Not Regulated	Not Regulated
Transport hazard Class:	Not Regulated	Not Regulated	Not Regulated
Packaging group:	Not Regulated	Not Regulated	Not Regulated
Environmental hazards:	Not Regulated	Not Regulated	Not Regulated
Special precautions for user:	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Regulated	Not Regulated	Not Regulated

15 Regulation information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations: Not applicable

Chemical Safety Assessment has been carried out? YES NO

16 Other information

16.1 Indication of changes Version 1.1 Amended by EU No 453/2010

16.2 Relevant R- phrases (number and full text):

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

16.3 Training instructions:

Not applicable.

16.4 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.5 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data

Sheet, or in combination with any other product or process, is the responsibility of the user.