



Safety Data Sheet (SDS)

Revision / Review Date: 4/8/14

1. Chemical Product and Company Identification

Product Name: TMQ
Distributed By: HB Chemical
1665 Enterprise Parkway
Twinsburg Oh 44087
Phone - 330-920-8023
MSDS Prepared By (w Suppliers Input): HB Chemical
Chemical Name / Family: 2,2,4-Trimethyl-1,2-dihydroquinoline, polymerized
CAS No.: 26780-96-1
REACH: Not available
Product Use: Used as rubber antioxidant.
OSHA Status: Not Hazardous

For emergency health, safety, and environmental information, calls 330-920-8023
For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

Classification of Substance

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.

The most important adverse effects

The most important adverse physicochemical effects: Not applicable.

The most important adverse human health effects: Not applicable.

The most important adverse environmental effects: Very toxic to aquatic life with long lasting effects.

Label Elements

<u>Hazard Pictograms:</u>	No pictogram is used.
<u>Signal Word(S):</u>	No signal word is used.
<u>Hazard Statement: H412:</u>	Harmful to aquatic life with long lasting effects.
<u>Precautionary Statement:</u>	P273 Avoid release to the environment. P501 Dispose of contents/container to local/state/international regulations.
<u>Other hazards:</u>	Not available (PBT,vPvB, Substance is an endocrine disruptor etc.)

3. Composition / Information on Ingredients

Substance/Mixture: Substance

Ingredient:

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

Description of first aid measures: In all cases of doubt, or when symptoms persist, seek medical attention.

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

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

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

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

Most important symptoms and effects, both acute and delayed: The product is not classified as harmful to human health effect.

Indication of any immediate medical attention And special treatment needed: If skin irritation or rash occurs, get medical advice/attention.

5. Fire-Fighting Measures

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.

Special Fire Fighting Procedures:

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

Special hazards arising from the substance or mixture:

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

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

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.

For emergency responders:

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

Environmental Precautions:

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

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.

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.

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:

Precautions for safe handling

Protective measures:

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

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.

Conditions for safe storage, including

<u>any incompatibilities:</u>	Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Avoid exposure to direct sunlight.
<u>Specific end use(s):</u>	Not applicable.

8. Exposure Controls / Personal Protection

<u>Control Parameters:</u>	Occupational exposure limits: Not available. Additional exposure limits under the conditions of use: Not available. DNEL/DMEL and PNEC-Values: not Available.
<u>Exposure Controls</u> <u>Appropriate engineering controls:</u>	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 and keep dust concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with the applicable air pollution control regulation. Eliminate ignition sources.
<u>Respiratory Protection:</u>	Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.
<u>Protective Gloves:</u>	Wear appropriate gloves to prevent skin exposure.
<u>Eye Protection:</u>	Wear appropriate goggles to prevent eye exposure.
<u>Skin and Body Protection:</u>	Wear suitable protective clothing to prevent skin exposure. Wear suitable protective clothing to prevent heat.
<u>Environmental exposure controls:</u>	Avoid discharge into the environment. This material and its containers must be disposed of as hazardous waste. According to local regulations, federal and official regulations.

9. Physical and Chemical Properties

<u>Appearance:</u>	Pastilles
<u>Colour:</u>	Light brown
<u>Odour:</u>	Faint, aromatic
<u>Odour threshold:</u>	Not available
<u>pH:</u>	7
<u>Melting point/range (°C):</u>	<83°C
<u>Boiling point/range (°C):</u>	Not determined

<u>Flash point (°C) :</u>	243°C
<u>Evaporation rate:</u>	_Not determined
<u>Flammability (solid, gas);</u>	Not determined
<u>Ignition temperature (°C) :</u>	Not determined
<u>Upper/lower flammability/explosive limits: Lower:</u>	<10mg/l(dust)
<u>Vapour pressure (20°C) :</u>	Negligible at room temperatures
<u>Vapour density:</u>	Not applicable
<u>Relative Density (25°C):</u>	1.1
<u>Bulk density (kg/m3) :</u>	600-630
<u>Water solubility (g/l) :</u>	0.0025 - 0.0032 kg/m ³ (25 °C)
<u>n-Octanol/Water (log Po/w) :</u>	3.22
<u>Auto-ignition temperature:</u>	Not available
<u>Decomposition temperature: _____</u>	Not available
<u>Viscosity, dynamic (mPa s) :</u>	Not determined
<u>Explosive properties:</u>	Not applicable
<u>Oxidising properties:</u>	Not applicable
<u>Other information:</u>	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

<u>Reactivity/Stability:</u>	Stable when stored at room temperature in closed, original containers. Stable under normal conditions of handling, use and transportation.
<u>Incompatibility (Materials to Avoid):</u>	No specific recommendations.
<u>Conditions to Avoid:</u>	Keep away from heat, sparks and flame.
<u>Hazardous decomposition products:</u>	Thermal decomposition products: Carbon monoxide (CO), nitrous gases (NOx).

11. Toxicological Information

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

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.

13. Disposal Considerations

<u>Waste treatment methods:</u>	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.
<u>Product / Packaging disposal:</u>	If empty container retains product residues, all labels recuations must be observed. Return for reuse or dispose according to national or local regulations.

14. Transport Information

<u>D.O.T. Shipping Name:</u>	Not regulated
<u>Air - ICAO (international Civil Aviation Organization):</u>	Not regulated
<u>Sea - IMDG (International Maritime Dangerous Goods)</u>	Not regulated.
<u>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</u>	Not regulated

15. Regulatory Information

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

Relevant R-phrases (number and full text): R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in aquatic environment.

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.