

2,2,4-Trimethyltetrahydroquinoline

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Revision: 3

SECTION 1: Identification of the Substance / Mixture and of the Company / Undertaking**1.1 Product Identifier**

Trade Name: 2,2,4-Trimethyltetrahydroquinoline
Chemical Name: 1,2,3,4-Tetrahydro-2,2,4-trimethylquinoline
CAS Number: 4497-58-9
REACH Registration Number: 01-2120107220-80-0000
Synonyms: 2,2,4-Trimethyl-1,2,3,4-tetrahydroquinoline

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intermediate for chemical production.

1.3 Details of the Supplier of the Safety Data Sheet

Synthesia, a.s.
Semtín 103
530 02 Pardubice
Czech Republic

Telephone: + 420 466 821 111
Fax: + 420 466 821 020
E-mail: synthesia@synthesia.eu

E-mail Address for a Competent Person: sds@synthesia.cz

1.4 Emergency Telephone Number

Manufacturer:
Telephone: + 420 466 824 402
Fax: + 420 466 824 448

Poison Center:
Toxikologické informační středisko, Na Bojišti 1, 128 08 Praha 2, Czech Republic
Telephone: + 420 224 919 293, + 420 224 915 402

SECTION 2: Hazards Identification**2.1 Classification of the Substance or Mixture**

According to Regulation (EC) No 1272/2008:

Acute Tox.4, H302
Aquatic Chronic 3, H412

Full text of H-phrases: see section 16.

2.2 Label Elements

2,2,4-Trimethyltetrahydroquinoline

Signal Word:

Warning

Hazard Statements:

Harmful if swallowed. (H302)

Harmful to aquatic life with long lasting effects. (H412)

Precautionary Statements:

Use personal protective equipment as required. (P281)

Avoid release to the environment. (P273)

Dispose of contents/container as hazardous waste. (P501)

2.3 Other Hazards

not known

SECTION 3: Composition / Information on Ingredients

3.1 Substances

Chemical name		
Index number CAS number EC number Registration number	Content [wt. %]	Classification according to Regulation (EC) 1272/2008
1,2,3,4-Tetrahydro-2,2,4-trimethylquinoline		
- 4497-58-9 224-791-9 01-2120107220-80-0000	cca 95	Acute Tox.4, H302 Aquatic Chronic 3, H412

The full text of H-phrases, hazard class and hazard category code is given in section 16.

3.2 Mixtures

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SECTION 4: First Aid Measures

4.1 Description of First Aid Measures

In all cases keep the victim at physical and mental rest and warm. In all serious events and always in case of eye contact, get medical advice.

4.1.1 Inhalation

Breake the exposure, transfer the victim to the fresh air, apply artificial respiration, if the victim is not breathing.

4.1.2 Skin Contact

Take off immediately contaminated clothing and flush affected area with plenty of water (preferably lukewarm) and soap.

4.1.3 Eye Contact

Rinse with plenty of water for at least 15 minutes, get medical advice. Do not attempt to neutralize!

4.1.4 Ingestion

Rinse the mouth with clean water, do not induce vomiting, give activated charcoal (5 crushed tablets in a small amount of water), seek medical advice.

4.2 Most Important Symptoms and Effects, both Acute and Delayed

2,2,4-Trimethyltetrahydroquinoline

no information available

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

no information available

SECTION 5: Firefighting Measures**5.1 Extinguishing Media****5.1.1 Suitable Extinguishing Media**

Water, foam, CO₂.

5.1.2 Unsuitable Extinguishing Media

not known

5.2 Special Hazards Arising from the Substance / Mixture

In case of burning, toxic oxides of nitrogen and oxides of carbon may be formed.

5.3 Advice for Firefighters

In the event of fire, wear self-contained breathing apparatus (EN 137) and clothing protective against chemicals.

SECTION 6: Accidental Release Measures**6.1 Personal Precautions, Protective Equipment and Emergency Procedures****6.1.1 For Non-emergency Personnel**

Do not breathe dust.

Avoid contact with eyes, skin and clothing.

6.1.2 For Emergency Responders

Use suitable personal protective equipment.

6.2 Environmental Precautions

Avoid product release into a water stream and drains.

6.3 Methods and Material for Containment and Cleaning Up

Emptied product cover up with stratum of sand or earth, pick up mechanistically and complete into specified closed containers.

Dispose according to the section 13.

6.4 Reference to Other Sections

Using of personal protective equipment - see section 8. Disposal - see section 13.

SECTION 7: Handling and Storage**7.1 Precautions for Safe Handling**

Avoid contact with eyes and skin.

Avoid breathing of dust.

Use personal protective equipment (see section 8). Keep principles of personal hygiene.

7.2 Conditions for Safe Storage, including any Incompatibilities

Store in original closed container in dry areas protected from direct weather conditions.

Protect from open flames and heat.

7.3 Specific End Use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

2,2,4-Trimethyltetrahydroquinoline**SECTION 8: Exposure Controls / Personal Protection****8.1 Control Parameters****Exposure Limit Values:**

not determined

8.2 Exposure Controls**8.2.1 Appropriate Engineering Controls**

Local exhaust, ventilation.

8.2.2 Individual Protection Measures, Personal Protective Equipment

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

All used personal protective equipment must be in accordance with Regulation (EU) 2016/425.

All personal protective equipment must be kept in usable condition. Damaged or contaminated equipment must be immediately replaced.

Respiratory Protection:	dust filter mask
Hand Protection:	rubber gloves
Eye / Face Protection:	protective chemical goggles or face shield
Skin Protection:	protective twilled clothing, safety shoes, cap or helmet

8.2.3 Environmental Exposure Controls

Avoid uncontrolled release of the substance/mixture to the environment.

8.3 Other Information

Do not eat, drink or smoke during the work and observe the personal hygiene principles.

Wash with water and soap after work.

SECTION 9: Physical and Chemical Properties**9.1 Information on Basic Physical and Chemical Properties**

Appearance:	solid light brown
Odour:	weak
Odour Threshold Value:	not available
pH:	alkaline
Melting Point / Freezing Point:	39 - 41 °C
Boiling Point (Range):	not available
Flash Point:	cca 80 °C
Evaporation Rate:	not available
Flammability (Solid, Gas):	not available
Upper Flammability / Explosive Limits:	not available
Lower Flammability / Explosive Limits:	not available
Vapour Pressure:	not available
Vapour Density:	not available

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Relative Density:	not available
Water Solubility:	hard
Partition Coefficient n-Octanol/Water:	3,39
Autoignition Temperature:	not available
Decomposition Temperature:	not available
Viscosity:	not available
Explosive Properties:	not available
Oxidising Properties:	not available

9.2 Other Information

Ignition point : cca 325 °C

SECTION 10: Stability and Reactivity**10.1 Reactivity**

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

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of Hazardous Reactions

not known

10.4 Conditions to Avoid

Open fire, heat.

10.5 Incompatible Materials

Strong oxidizing agents. Strong acids and bases.

10.6 Hazardous Decomposition Products

In case of burning, toxic oxides of nitrogen and oxides of carbon may be formed.

SECTION 11: Toxicological Information**11.1 Information on Toxicological Effects****Acute Toxicity:**

LD ₅₀ , Oral, Rat (mg/kg):	500 - 1000
LD ₅₀ , Skin, Rat or Rabbit (mg/kg):	no data available
LC ₅₀ , Inhalation, Rat (aerosol or particle) (mg/m ³):	no data available

Skin Corrosion / Irritation:

Not irritating.

Serious Eye Damage / Irritation:

Not irritating.

Respiratory or Skin Sensitisation:

no data available

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Germ Cell Mutagenicity:

no data available

Carcinogenicity:

no data available

Reproductive Toxicity:

no data available

STOT – Single Exposure:

no data available

STOT – Repeated Exposure:

no data available

Aspiration Hazard:

no data available

Potential Adverse Health Effects / Symptoms**Ingestion:**

Harmful.

The chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological Information**12.1 Toxicity****12.1.1 Acute Aquatic Toxicity**

LC ₅₀ , 96 h, Fish (mg/l):	17,8 (Brachydanio rerio)
EC ₅₀ , 48 h, Crustacea (mg/l):	14,1 (Daphnia magna)
EC ₅₀ , 72 h, Algae (mg/l):	17 (Scanedesmus subs.)

12.1.2 Chronic Aquatic Toxicity

no data available

12.1.3 Toxicity for Other Environment

no data available

12.2 Persistence and Degradability

No biodegradable.

12.3 Bioaccumulative Potential

no data available

12.4 Mobility in Soil

no data available

12.5 Results of PBT and vPvB Assessment

no data available

12.6 Other Adverse Effectsnot known

SECTION 13: Disposal Considerations**13.1 Waste Treatment Methods**

2,2,4-Trimethyltetrahydroquinoline**13.1.1 Disposal Methods of the Substance / Mixture**

Dissolve or mix the material with a combustible solvent and incinerate in a chemical incinerator in accordance with regulations.

13.1.2 Disposal Methods of the Contaminated Packaging

Flush with water, collect wash water for approved disposal.

SECTION 14: Transport Information

Product is not classified as dangerous goods according to transport regulations.

SECTION 15: Regulatory Information**15.1 Safety, Health and Environmental Regulations / Legislation Specific for the Substance or Mixture**

Regulation (EC) No. 1272/2008

Regulation (EC) No. 1907/2006

Water hazard class (Germany): WGK 2 - hazard to waters.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: Other Information**Reason for Alteration:**

Section 1 - REACH registration number.

List of Abbreviations:

CAS - Chemical Abstracts Service

EC number - EINECS (European Inventory of Existing Commercial Chemical Substance), ELINCS (European List of Notified Chemical Substances) or NLP (No-Longer-Polymers)

LD50 - lethal dose, 50%

LC50 - lethal concentration, 50%

EC50 - effective concentration, 50%

IC50 - inhibitory concentration, 50%

PBT - persistent, bioaccumulative and toxic

vPvB - very persistent and very bioaccumulative

BCF - bioconcentration factor

COD - chemical oxygen demand

BOD - biochemical oxygen demand

DNEL - derived no-effect level

PNEC - predicted no-effect concentration

NOAEL - no observed adverse effect level

NOAEC - no observed adverse effect concentration

NOEC - no observed effect concentration

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

IMDG - International Maritime Dangerous Goods

ICAO - International Civil Aviation Organisation

IATA - International Air Transport Association

Sources of Key Data Used to Compile the Safety Data Sheet:

Legislation, chemical databases and tables, tests.

Relevant Information for Classification and Labelling of the Product:

Substance has been classified on the basis of its hazard properties data as found in specialised sources.

2,2,4-Trimethyltetrahydroquinoline

Full Text of H-phrases from Section 2 and 3:

Acute Tox.4, H302 Acute toxicity (oral), Category 4

Aquatic Chronic 3, H412 Hazardous to the aquatic environment - chronic, Category 3

H302 Harmful if swallowed.

H412 Harmful to aquatic life with long lasting effects.

Training Advice:

In compliance with safety data sheet.

The above information corresponds to the current level of our knowledge and experience. The data merely describe the product with respect to safety and cannot be construed as guaranteed parameters. The user is responsible for handling in compliance with the existing laws and regulations.