SAFETY DATA SHEETS

According to the UN GHS revision 10

Version: 1.1 Creation Date: July 15, 2024 Revision Date: March 22, 2025

SECTION 1: Identification

1.1 GHS Product identifier

Product name 2,2,6,6-Tetramethyl-4-piperidone

1.2 Other means of identification

Product number 826-36-8

Other names 2,2,6,6-tetramethyl-4-oxo-piperidine; 2,2,6,6-tetramethyl-4-piperidinone; 4-Piperidinone,

2,2,6,6-tetramethyl-

1.3 Recommended use of the chemical and restrictions on use

Identified uses For laboratory and Industrial use only.

Uses advised against no data available

1.4 Supplier's details

Company Zhongshan Greenrock Technology Co., Ltd.

Address Jinsan Avenue, Sanjiao Town, Zhongshan City, Guangdong Province, China

Telephone +86-2087066781

1.5 Emergency phone number

Emergency phone number +86-2087066781

Service hours 'Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Corrosive to metals, Category 1 Acute toxicity - Category 4, Oral Skin corrosion, Sub-category 1B Skin sensitization, Sub-category 1A Serious eye damage, Category 1

Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 3

2.2 GHS label elements, including precautionary statements

Pictogram(s)





Signal word Danger

Hazard statement(s) H290 May be corrosive to metals

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage H317 May cause an allergic skin reaction

H412 Harmful to aquatic life with long lasting effects

Precautionary statement(s)

Prevention P234 Keep only in original packaging.

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection/...

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

Response P390 Absorb spillage to prevent material damage.

P301+P317 IF SWALLOWED: Get medical help.

P330 Rinse mouth.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P363 Wash contaminated clothing before reuse.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P316 Get emergency medical help immediately. P321 Specific treatment (see ... on this label).

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P302+P352 IF ON SKIN: Wash with plenty of water/... P333+P317 If skin irritation or rash occurs: Get medical help. P362+P364 Take off contaminated clothing and wash it before reuse.

P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P317 Get medical help.

Storage P406 Store in a corrosion resistant/...container with a resistant inner liner.

P405 Store locked up.

Disposal P501 Dispose of contents/container to an appropriate treatment and disposal facility in

accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
2,2,6,6-Tetramethyl-4-piperidone	2,2,6,6-tetramethyl-4-piperidone	826-36-8	212-554-2	≈ 99%

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2 Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear

chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state Solid.

Colourno data availableOdourno data available

Melting point/freezing point 33.2 °C. Atm. press.:1 011.5 hPa.

Boiling point or initial boiling point and 209.1 °

209.1 °C. Atm. press.:1 013.25 hPa. Remarks:The boiling point, measured at 1011.5 hPa, was

boiling range corrected with the help of the Sidney-Young equation to atmospheric pressure.

Flammability no data available Lower and upper explosion no data available

limit/flammability limit

Flash point 81 °C. Atm. press.:1 014 - 1 015 hPa.

Auto-ignition temperature Remarks: No self-ignition was detected in the solid aggregate state.

Decomposition temperatureno data availablepHno data availableKinematic viscosityno data available

Solubility In water: 249 g/L. Temperature: $2 ^{\circ}$ C. pH:>= 10.5 - <= 10.7.

Partition coefficient n-octanol/water log Pow = 1.16. Temperature:25 °C. Remarks:Log Pow of the unprotonated species.;log Pow =

1.1. Temperature:25 °C. Remarks:Substance is predominantly unprotonated.;log Pow = 0.75.

Temperature:25 °C. Remarks:Substance is partially protonated.

0.18 hPa. Temperature:25 °C. Remarks:Calculated value (with the help of the Antoine Vapour pressure

> parameters of the vapour pressure curve of the solid state).;0.3 hPa. Temperature:26.3 °C. Remarks:Directly measured value.;0.7 hPa. Temperature:30.93 °C. Remarks:Directly measured

Density and/or relative density

1.065. Temperature:20 °C.;1.063. Temperature:27 °C.

Relative vapour density Particle characteristics

no data available no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

Possibility of hazardous reactions 10.3

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

Hazardous decomposition products 10.6

no data available

SECTION 11: Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
 Dermal: LD50 rat (male/female) > 2 000 mg/kg bw.

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

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

SECTION 12: Ecological information

12.1 **Toxicity**

- Toxicity to fish: LC50 Danio rerio (previous name: Brachydanio rerio) 63 mg/L 96 h. Toxicity to daphnia and other aquatic invertebrates: EC50 Daphnia magna 281.2 mg/L 48 h.
- Toxicity to algae: EC50 Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) 566.2 mg/L 72 h. Toxicity to microorganisms: EC20 activated sludge, domestic > 100 mg/L 180 min. Remarks:Respiration rate.

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

14.1 UN Number

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference IATA: Not dangerous goods. (For reference only, please check.)

14.2 UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference IATA: Not dangerous goods. (For reference only, please check.)

14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference IATA: Not dangerous goods. (For reference only, please check.)

14.4 Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference IATA: Not dangerous goods. (For reference only, please check.)

14.5 Environmental hazards

ADR/RID: No IMDG: No IATA: No

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number	
2,2,6,6-tetramethyl-4-piperidone	2,2,6,6-tetramethyl-4-piperidone	826-36-8	212-554-2	
European Inventory of Existing Commercial Chemical Substances (EINECS)				
EC Inventory				
United States Toxic Substances Control Act (TSCA) Inventory				
China Catalog of Hazardous chemicals 2015				
New Zealand Inventory of Chemicals (NZIoC)				
Philippines Inventory of Chemicals and Chemical Substances (PICCS)				
Vietnam National Chemical Inventory			Listed.	

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)		
Korea Existing Chemicals List (KECL)	Listed.	

SECTION 16: Other information

Information on revision

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Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- eChemPortal The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CÂMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

- ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
 ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
 Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- ECHA European Chemicals Agency, website: https://echa.europa.eu/

Any questions regarding this SDS, Please send your inquiry to export@greenrockchem.com

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