

SAFETY DATA SHEETS

According to the UN GHS revision 8

| | Version: 1.0 | |
|--|--|--|
| | Creation Date: August 19, 2021 | |
| | Revision Date: August 19, 2021 | |
| SECTION 1: Identifi | cation | |
| 1.1GHS Product ide | entifier | |
| Product name | (6R)-4, 5, 6, 7-tetrahydro-1, 3-benzothiazole-2, 6-diamine | |
| 1.20ther means of identification | | |
| Product number | - | |
| Other names | (R)-4,5,6,7-Tetrahydrobenzo[d]thiazole-2,6-diamine; | |
| | (R)-(+)-2,6-Diamino-4,5,6,7-tetrahydrobenzothiazole; | |
| 1.3Recommended use of the chemical and restrictions on use | | |
| Identified uses | Industrial and scientific research uses. | |
| Uses advised again | st no data available | |
| 1.4Supplier's details | | |
| Company | FUJIAN FREEMIND PHARM CO., LTD | |
| Address | No. 39, Area D, Economic Development Zone, Hanxian Town, | |
| | Mingxi County, Sanming City, Fujian Province | |
| Telephone | 0598-2893888 | |
| 1.5Emergency phone number | | |
| Emergency phone r | number +86-15306818081 | |
| Service hours | Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 | |
| hours). | | |
| SECTION 2: Hazard identification | | |
| 2.1Classification of the substance or mixture | | |
| Acute toxicity - Category 4, Oral | | |
| Acute toxicity - Category 4, Dermal | | |
| Skin sensitization, Category 1 | | |

Eye irritation, Category 2

Acute toxicity - Category 4, Inhalation

Specific target organ toxicity – single exposure, Category 3

2.2GHS label elements, including precautionary statements



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Pictogram(s)

| Pictogram(s) | \land |
|-----------------------------|--|
| | |
| | · · / |
| | |
| Signal word | Warning |
| Hazard statement(s) | H302 Harmful if swallowed |
| | H312 Harmful in contact with skin |
| | H317 May cause an allergic skin reaction |
| | H319 Causes serious eye irritation |
| | H332 Harmful if inhaled |
| | H335 May cause respiratory irritation |
| Precautionary statement(s) | |
| Prevention | P264 Wash thoroughly after handling. |
| | P270 Do not eat, drink or smoke when using this product. |
| | 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. |
| | P271 Use only outdoors or in a well-ventilated area. |
| Response | P301+P317 IF SWALLOWED: Get medical help. |
| | P330 Rinse mouth. |
| | P302+P352 IF ON SKIN: Wash with plenty of water/ |
| | P317 Get medical help. |
| | P321 Specific treatment (see on this label). |
| | P362+P364 Take off contaminated clothing and wash it before |
| | reuse. |
| | P333+P317 If skin irritation or rash occurs: Get medical help. |
| | P305+P351+P338 IF IN EYES: Rinse cautiously with water for |
| $\mathcal{A}_{\mathcal{A}}$ | several minutes. Remove contact lenses, if present and easy to do. |
| | Continue rinsing. |
| | P304+P340 IF INHALED: Remove person to fresh air and keep |
| | comfortable for breathing. |
| | P319 Get medical help if you feel unwell. |
| Storage | P403+P233 Store in a well-ventilated place. Keep container |
| | tightly closed. |
| | 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. |
| 2.30ther hazards which do | not result in classification |

2.30ther hazards which do not result in classification

no data available



3.1Substances

| Chemical name | Common names and synonyms | CAS number | EC number | Concentration |
|---|---|-------------|-----------|---------------|
| (6R)-4, 5, 6, 7-tetrahydro-1, 3-benzothiazole-2, 6-diamine | (6R)-4, 5, 6, 7-tetrahydro-1, 3-benzothiazole-2, 6-diamine | 106092-11-9 | - | 100% |

SECTION 4: First-aid measures

4.1Description 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.

4.2Most important symptoms/effects, acute and delayed

no data available

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

no data available

SECTION 5: Fire-fighting measures

5.1Suitable extinguishing media

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

5.2Specific hazards arising from the chemical

no data available

5.3Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1Personal 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.

6.2Environmental 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.

6.3Methods 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

7.1Precautions 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.

7.2Conditions 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

8.1Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2Appropriate engineering controls

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

8.3Individual 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



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|--|------------------------|--|
| Physical state | off-white solid | |
| Colour | no data available | |
| Odour | no data available | |
| Melting point/freezing point | 228-230°C | |
| Boiling point or initial boiling point | 359°C at 760mmHg | |
| and boiling range | | |
| Flammability | no data available | |
| Lower and upper explosion | no data available | |
| limit/flammability limit | | |
| Flash point | 170.9°C | |
| Auto-ignition temperature | no data available | |
| Decomposition temperature | no data available | |
| рН | no data available | |
| Kinematic viscosity | no data available | |
| Solubility | no data available | |
| Partition coefficient n-octanol/water | no data available | |
| Vapour pressure | 2.45E-05mmHg at 25°C | |
| Density and/or relative density | 1.313g/cm3 | |
| Relative vapour density | no data available | |
| Particle characteristics | no data available | |
| SECTION 10: Stability and reactivity | | |
| 10.1Reactivity | NBK. | |
| no data available | | |
| 10.2Chemical stability | | |
| no data available | | |

SECTION 10: Stability and reactivity

10.1Reactivity

10.2Chemical stability

10.3Possibility of hazardous reactions

no data available

10.4Conditions to avoid

no data available

10.5Incompatible materials

no data available

10.6Hazardous decomposition products

no data available

SECTION 11: Toxicological information

Acute toxicity



Oral: no data available

Inhalation: no data available

Dermal: no data available

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

12.1Toxicity

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available

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- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

12.2Persistence and degradability

no data available

12.3Bioaccumulative potential

no data available

12.4Mobility in soil

no data available



12.50ther adverse effects

no data available

SECTION 13: Disposal considerations

13.1Disposal 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 | | | | |
|--|-------------------------|-------------------------|--|--|
| 14.1UN Number | | 12 | | |
| ADR/RID: no data available | IMDG: no data available | IATA: no data available | | |
| 14.2UN Proper Shipping Name | | \mathbf{C} | | |
| ADR/RID: no data available | IMDG: no data available | IATA: no data available | | |
| 14.3Transport hazard class(es) | | | | |
| ADR/RID: no data available | IMDG: no data available | IATA: no data available | | |
| 14.4Packing group, if applicable | | | | |
| ADR/RID: no data available | IMDG: no data available | IATA: no data available | | |
| 14.5Environmental hazards | | | | |
| ADR/RID: No | IMDG: No | IATA: No | | |
| 14.6Special precautions for user | | | | |
| no data available | | | | |
| 14.7Transport in bulk according to IMO instruments | | | | |
| no data available | | | | |
| | - | | | |

SECTION 15: Regulatory information



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

| Chemical name | Common names and synonyms | CAS number | EC number |
|--|-------------------------------|-------------|-------------|
| (6R)-4, 5, 6, 7-tetrahydro-1, | (6R)-4, 5, 6, 7-tetrahydro-1, | 106092-11-9 | |
| 3-benzothiazole-2, 6-diamine | 3-benzothiazole-2, 6-diamine | 106092-11-9 | - |
| European Inventory of Existing Commercial Chemical Substances (EINECS) | | | Not Listed. |
| EC Inventory | | | Not Listed. |
| United States Toxic Substances Control Act (TSCA) Inventory | | | Not Listed. |
| China Catalog of Hazardous chemicals 2015 | | | Not Listed. |
| New Zealand Inventory of Chemicals (NZIoC) | | | Not Listed. |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS) | | | Not Listed. |
| Vietnam National Chemical Inventory | | | Not Listed. |
| Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) | | | Not Listed. |
| Korea Existing Chemicals List (KECL) | | | Not Listed. |

SECTION 16: Other information

Information on revision

| Creation Date | August 19, 2021 |
|---------------|-----------------|
| Revision Date | August 19, 2021 |

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

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- 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
- CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp



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- 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/

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