SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.1 Creation Date: July 15, 2019 Revision Date: May 19, 2023

SEC	TION 1: Identification		
1.1	GHS Product identifier		
	Product name	Esomeprazol EP Impurity A(Omeprazole EP Impurity A)	
1.2	Other means of identification		
	Product number Other names	37052-78-1 5-methoxy-2-benzimidazolethiol;5-Methoxy-1H-benzo[d]imidazole-2-thiol;5-methoxy-2- mercapto-benzimidazole	
1.3	3 Recommended use of the chemical and restrictions on use		
	Identified uses Uses advised against	For laboratory and Industrial use only. no data available	
1.4	Supplier's details		
	Company Address Telephone	Zhongshan Greenrock Technology Co., Ltd. Jinsan Avenue, Sanjiao Town, Zhongshan City, Guangdong Province, China +86-2087066781	
1.5	Emergency phone number		
	Emergency phone number Service hours	+86-2087066781 'Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).	

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Acute toxicity - Category 4, Oral Skin sensitization, Category 1 Specific target organ toxicity – single exposure, Category 1

2.2 GHS label elements, including precautionary statements

Pictogram(s)

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Signal word	Danger	
Hazard statement(s)	H302 Harmful if swallowed	
	H317 May cause an allergic skin reaction	
	H370 Causes damage to organs	
Precautionary statement(s)		
Prevention	P264 Wash thoroughly after handling.	
	P270 Do not eat, drink or smoke when using this product.	
	P261 Avoid breathing dust/fume/gas/mist/vapours/spray.	
	P272 Contaminated work clothing should not be allowed out of the workplace.	
	P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/	
	P260 Do not breathe dust/fume/gas/mist/vapours/spray.	
Response	P301+P317 IF SWALLOWED: Get medical help.	
	P330 Rinse mouth.	
	P302+P352 IF ON SKIN: Wash with plenty of water/	
	P333+P317 If skin irritation or rash occurs: Get medical help.	
	P321 Specific treatment (see on this label).	
	P362+P364 Take off contaminated clothing and wash it before reuse.	
	P308+P316 IF exposed or concerned: Get emergency medical help immediately.	
Storage	P405 Store locked up.	

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	number	Concentration
Esomeprazol EP Impurity A(Omeprazole EP Impurity A)	1,3-dihydro-5-methoxy-2H-benzimidazole-2- thione	37052-78-1	253-326-2	100%

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 sparkproof 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.

Disposal

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 riskelimination 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. Powder.
Colour	Off white to light yellowish brown.
Odour	no data available
Melting point/freezing point	255.3 - 259.3 °C. Atm. press.:979 hPa. Remarks:Other details not available.
Boiling point or initial boiling point and	> 250 °C. Atm. press.:979 hPa. Remarks:Other details not available.
boiling range	
Flammability	no data available
Lower and upper explosion	no data available
limit/flammability limit	
Flash point	141.6 °C. Atm. press.:978.5 hPa.
Auto-ignition temperature	Atm. press.:970 hPa. Remarks:1,3-dihydro-5-methoxy-2 H-benzimidazole-2-thione did not catch
	fire on being exposed to air at room temperature of 37 deg C and atmospheric pressure of 970
	hPa.
Decomposition temperature	no data available
рН	5.79.
Kinematic viscosity	no data available
Solubility	In water: 320 mg/L. Temperature:25 °C. pH:5.88Methanol.;Petroleum.
Partition coefficient n-octanol/water	log Pow = 0.816. Temperature:25. Remarks:PH details not available.
Vapour pressure	0 mm Hg. Temperature:25 °C. Remarks:Estimated by Modified Grain Method.
Density and/or relative density	1.288 g/cm ³ . Temperature:20 °C.
Relative vapour density	no data available
Particle characteristics	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

Acute toxicity

- Oral: LD50 mouse (male) 2 000 mg/kg bw. ٠
- Inhalation: no data available Dermal: LD50 rabbit (male/female) > 7 940 mg/kg bw. ٠

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) > 50 < 100 mg/L 96 h.
- Toxicity to daphnia and other aquatic invertebrates: LC84 Daphnia magna 10 mg/L 48 h. Toxicity to algae: EC50 Chlorella vulgaris 53.19 mg/L 72 h.
- Toxicity to microorganisms: EC50 Tetrahymena pyriformis 10 mg/L 24 h.

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

Disposal methods 13.1

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 only, please check.)	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 only, please check.)	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 only, please check.)	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 only, please check.)	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		

Transport in bulk according to IMO instruments 14.7

no data available

SECTION 15: Regulatory information

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

Chemical name	Common names and synonyms	CAS number	EC number
1,3-dihydro-5-methoxy-2H-benzimidazole-2-thione	1,3-dihydro-5-methoxy-2H-benzimidazole-2-thione	37052-78-1	253-326-2
European Inventory of Existing Commercial Chemical Substances (EINECS)			
EC Inventory			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			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed.
Korea Existing Chemicals List (KECL)			Listed.

SECTION 16: Other information

Information on revision

Creation Date	July 15, 2019
Revision Date	May 19, 2023

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 ٠
- 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 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 ٠
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- 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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