



SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.0
Creation Date: July 15, 2019
Revision Date: July 15, 2019

SECTION 1: Identification

1.1 GHS Product identifier

Product name (2s,4s)-2-ethylamino-4-methyl-5,5-dioxo-5,7-dithiabicyclo[4.3.0]nona-8,10-diene-8-sulfonamide hydrochloride(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulfonamide hydrochloride (4S,6S)-4-(ethylamino)-6-methyl-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulphonamide 7,7-dioxide hydrochloride4-ethylamino-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[5,4-b]thiopyran-2-sulfonamide Hydrochloride4H-thieno[2,3-b] thiopyran-2-sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride

1.2 Other means of identification

Product number -
Other names Dorzolamide;Dorzolamide HCl;Dorzolamide Hydrochloride

1.3 Recommended use of the chemical and restrictions on use

Identified uses Industrial and scientific research use.
Uses advised against no data available

1.4 Supplier's details

Company Shanghai Yien Chemical Technology Co., Ltd
Address Building 6, 28 Yingong Road, Fengxian District, Shanghai Chemical Industry Zone, Shanghai, 201400, China
Telephone +86-400-133-2688

1.5 Emergency phone number

Emergency phone number +86-400-133-2688
Service hours Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

SECTION 2: Hazard identification

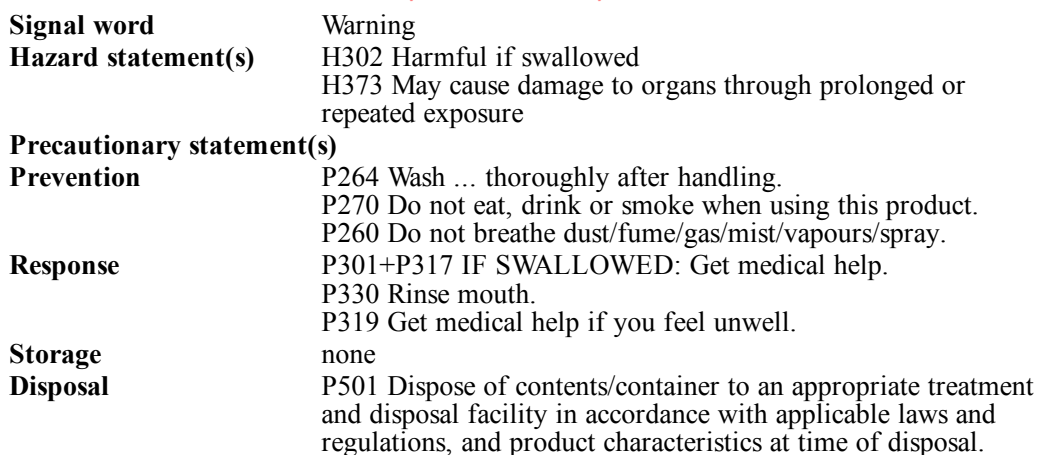
2.1 Classification of the substance or mixture

Acute toxicity - Category 4, Oral
Specific target organ toxicity – repeated exposure, Category 2

2.2 GHS label elements, including precautionary statements

Pictogram(s)

(2s,4s)-2-ethylamino-4-methyl-5,5-dioxo-5,7-dithiabicyclo[4.3.0]nona-8,10-diene-8-sulfonamide hydrochloride(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulfonamide hydrochloride (4S,6S)-4-(ethylamino)-6-methyl-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulphonamide 7,7-dioxide hydrochloride4-ethylamino-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[5,4-b]thiopyran-2-sulfonamide Hydrochloride4H-thieno[2,3-b] thiopyran-2-sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride



no data available

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
(2s,4s)-2-ethylamino-4-methyl-5,5-dioxo-5,7-dithiabicyclo[4.3.0]nona-8,10-diene-8-sulfonamide hydrochloride(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulfonamide hydrochloride (4S,6S)-4-(ethylamino)-6-methyl-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulphonamide 7,7-dioxide hydrochloride4-ethylamino-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[5,4-b]thiopyran-2-sulfonamide Hydrochloride4H-thieno[2,3-b] thiopyran-2-sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride	(2s,4s)-2-ethylamino-4-methyl-5,5-dioxo-5,7-dithiabicyclo[4.3.0]nona-8,10-diene-8-sulfonamide hydrochloride(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulfonamide hydrochloride (4S,6S)-4-(ethylamino)-6-methyl-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulphonamide 7,7-dioxide hydrochloride4-ethylamino-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[5,4-b]thiopyran-2-sulfonamide Hydrochloride4H-thieno[2,3-b] thiopyran-2-sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride	130693-82-2	-	100%

4.1 Description of necessary first-aid measures

If inhaled
sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride

sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride

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	White off-white crystalline powder.
Colour	no data available
Odour	no data available
Melting point/freezing point	75°C(lit.)
Boiling point or initial boiling point and boiling range	253°C(lit.)
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	28°C(lit.)
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	no data available
Partition coefficient n-octanol/water	no data available
Vapour pressure	2.93E-13mmHg at 25°C

sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride

Density and/or relative density	1.53 g/cm ³
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: 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

arexto 5,6-dimethyl-1H-imidazo[4,5-b]pyridin-2-sulfonamide Hydrochloride 1H-imidazo[2,5-b]pyridin-2-sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride

SECTION 12: Ecological information

12.1 Toxicity

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

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: UN1123 (For reference only, please check.)

IMDG: UN1123 (For reference only, please check.)

IATA: UN1123 (For reference only, please check.)

14.2 UN Proper Shipping Name

ADR/RID: BUTYL ACETATES (For reference only, please check.)

IMDG: BUTYL ACETATES (For reference only, please check.)

IATA: BUTYL ACETATES (For reference only, please check.)

14.3 Transport hazard class(es)

ADR/RID: 3 (For reference only, please check.)

IMDG: 3 (For reference only, please check.)

IATA: 3 (For reference only, please check.)

14.4 Packing group, if applicable

ADR/RID: II (For reference only, please check.)

IMDG: II (For reference only, please check.)

IATA: II (For reference only, please check.)

14.5 Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

arene 2,5-bis(4-ethylamino-1H-imidazol-1-yl)propan-2-ylsulfonamide Hydrochloride 2,5-bis(4-ethylamino-1H-imidazol-1-yl)propan-2-sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride

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
(2s,4s)-2-ethylamino-4-methyl-5,5-dioxo-5,7-dithiabicyclo[4.3.0]nona-8,10-diene-8-sulfonamide hydrochloride(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulfonamide hydrochloride (4S,6S)-4-(ethylamino)-6-methyl-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulphonamide 7,7-dioxide hydrochloride4-ethylamino-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[5,4-b]thiopyran-2-sulfonamide Hydrochloride4H-thieno[2,3-b] thiopyran-2-sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride	(2s,4s)-2-ethylamino-4-methyl-5,5-dioxo-5,7-dithiabicyclo[4.3.0]nona-8,10-diene-8-sulfonamide hydrochloride(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulfonamide hydrochloride (4S,6S)-4-(ethylamino)-6-methyl-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulphonamide 7,7-dioxide hydrochloride4-ethylamino-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[5,4-b]thiopyran-2-sulfonamide Hydrochloride4H-thieno[2,3-b] thiopyran-2-sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride	130693-82-2	-
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 July 15, 2019

Revision Date July 15, 2019

Abbreviations and acronyms

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

dioxo-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulfonamide Hydrochloride4-ethylamino-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[5,4-b]thiopyran-2-sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride

- 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>
- 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 sds@xixisis.com

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.

(2s,4s)-2-ethylamino-4-methyl-5,5-dioxo-5,7-dithiabicyclo[4.3.0]nona-8,10-diene-8-sulfonamide hydrochloride(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-(4R,6R)-4-(ethylamino)-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulfonamide hydrochloride (4S,6S)-4-(ethylamino)-6-methyl-5,6-dihydro-4H-thieno[2,3-b]thiopyran-2-sulphonamide 7,7-dioxide hydrochloride4-ethylamino-6-methyl-7,7-dioxo-5,6-dihydro-4H-thieno[5,4-b]thiopyran-2-sulfonamide Hydrochloride4H-thieno[2,3-b] thiopyran-2-sulfonamide, 4-(ethylamino)-5,6-dihydro-6-methyl-, 7,7-dioxide, monohydrochloride, (4S-trans)-Dorzolamide Hydrochloride

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