

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 2-(Bis(2-chloroethyl)amino)-1-oxa-3-aza-2-phosphocyclohexane 2-oxide monohydrate 2H-1,3,2-Oxazaphosphorin, 2-(bis(2-chloroethyl)amino)tetrahydro-, 2-oxid monohydrate 2[bis(2-chloroethyl)amine]tetrahydro-2H-1,3,2-oxazaphosphorine-2-oxide monohydrate 629-456-4 Cyclophosphamide Monohydrate Cyclophosphamide monohydrate N,N-Bis(2-chloroethyl)-2-oxo-1,3,2λ⁵-oxazaphosphinan-2-amine hydrate

1.2 Other means of identification

Product number -
Other names Cyclophosphamide monohydrate; N,N-bis(2-chloroethyl)-2-oxo-1,3,2λ⁵-oxazaphosphinan-2-amine hydrate;

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 Baishun Biotechnology Co., Ltd
Address No. 26, Lane 918, Lianye Road, Zhelin Town, Fengxian District, Shanghai, 201400, China
Telephone +86-21-37581181

1.5 Emergency phone number

Emergency phone number +86-21-37581181
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
Serious eye damage, Category 1
Germ cell mutagenicity, Category 1A
Carcinogenicity, Category 1A
Reproductive toxicity, Category 1A

2.2 GHS label elements, including precautionary statements

Pictogram(s)

Hydro-2H-1,3,2-Oxazaphosphorine-2-oxide monohydrate 629-456-4 Cyclophosphamide monohydrate N,N-Bis(2-chloroethyl)-2-oxo-1,3,2λ⁵-oxazaphosphinan-2-amine hydrate 8



Signal word	Danger
Hazard statement(s)	H302 Harmful if swallowed H318 Causes serious eye damage H340 May cause genetic defects H350 May cause cancer H360 May damage fertility or the unborn child H372 Causes damage to organs through prolonged or repeated exposure H413 May cause long lasting harmful effects to aquatic life
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/...
Response	P203 Obtain, read and follow all safety instructions before use. P301+P317 IF SWALLOWED: Get medical help. P330 Rinse mouth. 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. P318 IF exposed or concerned, get medical advice.
Storage	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-(Bis(2-chloroethyl)amino)-1-oxa-3-aza-2-phosphocyclohexane 2-oxide monohydrate2H-1,3,2-Oxazaphosphorin, 2-(bis(2-chloroethyl)amino)tetrahydro-,2-oxid monohydrate2[bis(2-cloretyl)amine]tetra hydro-2H-1,3,2-oxazaphosphorine-2-oxide monohydrate629-456-4Cyclophosphamide MonohydrateCyclophosphamide monohydrateN,N-Bis(2-chloroethyl)-2-oxo-1,3,2λ5-oxazaphosphinan-2-amine hydrate	2-(Bis(2-chloroethyl)amino)-1-oxa-3-aza-2-phosphocyclohexane 2-oxide monohydrate2H-1,3,2-Oxazaphosphorin, 2-(bis(2-chloroethyl)amino)tetrahydro-,2-oxid monohydrate2[bis(2-cloretyl)amine]tetra hydro-2H-1,3,2-oxazaphosphorine-2-oxide monohydrate629-456-4Cyclophosphamide MonohydrateCyclophosphamide monohydrateN,N-Bis(2-chloroethyl)-2-oxo-1,3,2λ5-oxazaphosphinan-2-amine hydrate	6055-19-2	-	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

MonohydrateCyclophosphamide monohydrateN,N-Bis(2-chloroethyl)-2-oxo-1,3,2λ5-oxazaphosphinan-2-amine hydrate 8

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/flamm 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 to Off-White Solid
Colour	no data available
Odour	no data available
Melting point/freezing point	126°C(lit.)
Boiling point or initial boiling point and boiling range	64°C/20mmHg(lit.)
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	113°C
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	In water: 40 g/L
Partition coefficient n-octanol/water	no data available
Vapour pressure	no data available
Density and/or relative density	no data available

Particle characteristics	no data available
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10.1 Reactivity

no data available

no data available

no data available

no data available

no data available

no data available

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

no data available

no data available

no data available

no data available

no data available

no data available

no data available

no data available

no data available

11410-211 1,3,5,7-tetraazaphosphorine 2-oxide monohydrate(2) 150 10 cyclophosphamide

MonohydrateCyclophosphamide monohydrateN,N-Bis(2-chloroethyl)-2-oxo-1,3,2λ5-oxazaphosphinan-2-amine hydrate

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: UN3464 (For reference only, please check.)

IMDG: UN3464 (For reference only, please check.)

IATA: UN3464 (For reference only, please check.)

14.2 UN Proper Shipping Name

ADR/RID:
ORGANOPHOSPHORUS
COMPOUND, SOLID,
TOXIC, N.O.S. (For
reference only, please check.)

IMDG:
ORGANOPHOSPHORUS
COMPOUND, SOLID,
TOXIC, N.O.S. (For
reference only, please check.)

IATA:
ORGANOPHOSPHORUS
COMPOUND, SOLID,
TOXIC, N.O.S. (For
reference only, please check.)

14.3 Transport hazard class(es)

ADR/RID: 6.1 (For reference only, please check.)

IMDG: 6.1 (For reference only, please check.)

IATA: 6.1 (For reference only, please check.)

14.4 Packing group, if applicable

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

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

IATA: I (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-(Bis(2-chloroethyl)amino)-1-oxa-3-aza-2-phosphocyclohexane 2-oxide monohydrate 2H-1,3,2-Oxazaphosphorin, 2-(bis(2-chloroethyl)amino)tetrahydro-, 2-oxid monohydrate 2[bis(2-chloroethyl)amine]tetra hydro-2H-1,3,2-oxazaphosphorine-2-oxide monohydrate 629-456-4Cyclophosphamide Monohydrate Cyclophosphamide monohydrate N,N-Bis(2-chloroethyl)-2-oxo-1,3,2λ5-oxazaphosphinan-2-amine hydrate	2-(Bis(2-chloroethyl)amino)-1-oxa-3-aza-2-phosphocyclohexane 2-oxide monohydrate 2H-1,3,2-Oxazaphosphorin, 2-(bis(2-chloroethyl)amino)tetrahydro-, 2-oxid monohydrate 2[bis(2-chloroethyl)amine]tetra hydro-2H-1,3,2-oxazaphosphorine-2-oxide monohydrate 629-456-4Cyclophosphamide Monohydrate Cyclophosphamide monohydrate N,N-Bis(2-chloroethyl)-2-oxo-1,3,2λ5-oxazaphosphinan-2-amine hydrate	6055-19-2	-
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)			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)			Not 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

Hydro 2H-1,3,2-Oxazaphosphorine 2-oxide monohydrate 2H-1,3,2-Oxazaphosphorin, 2-(bis(2-chloroethyl)amino)tetrahydro-, 2-oxid monohydrate 2[bis(2-chloroethyl)amine]tetra hydro-2H-1,3,2-oxazaphosphorine-2-oxide monohydrate 629-456-4Cyclophosphamide Monohydrate Cyclophosphamide monohydrate N,N-Bis(2-chloroethyl)-2-oxo-1,3,2λ5-oxazaphosphinan-2-amine hydrate

- 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@xixisys.com

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