

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 18 Mar 2024

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Cyclophosphamide monohydrate

1.1. Catalog No.:

676331

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Acute toxicity, Oral (Category 3), H301
Carcinogenicity (Category 1B), H350 Classification according to EU Directives 67/548/EEC or 1999/45/EC
T Toxic R45, R25

2.2. Label elements

2.2.1. Pictogram



2.2.2.

Signal word Danger
Hazard statement(s)
H301 Toxic if swallowed.
H350 May cause cancer Precautionary statement(s)

P201 Obtain special instructions before use.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/
physician.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard
Statements
none
Restricted to professional users.
2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Formula : $C_7H_{15}Cl_2N_2O_2P \cdot H_2O$
Molecular Weight : 279,10 g/mol
CAS-No. : 6055-19-2
EC-No. : 200-015-4
Hazardous ingredients according to Regulation (EC) No 1272/2008
Component Classification Concentration
Cyclophosphamide monohydrate
CAS-No.
EC-No.
6055-19-2
200-015-4
Acute Tox. 3; Carc. 1B; H301,
H350
≤ 100 %
Hazardous ingredients according to Directive 1999/45/EC
Component Classification Concentration
Cyclophosphamide monohydrate
CAS-No.
EC-No.
6055-19-2
200-015-4
T, R45 - R25 ≤ 100 %

3.1.1. Formula

$C_7H_{17}Cl_2N_2O_3P$

3.1.2. Molecular Weight (g/mol)

279.10

3.1.3. CAS-No.

6055-19-2

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), Oxides of phosphorus, Hydrogen chloride gas

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: 2 - 8 °C

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under

appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique

(without touching glove's outer surface) to avoid skin contact with this product. Dispose of

contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry Hands Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected

according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle

respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering

controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use

respirators and components tested and approved under appropriate government standards such

as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: crystalline

Colour: white

b) Odour no data available

c) Odour Threshold no data available

d) pH no data available

e) Melting point/freezing

point

Melting point/range: 49 - 51 °C

f) Initial boiling point and

boiling range

no data available

g) Flash point 113 °C - closed cup

h) Evaporation rate no data available

i) Flammability (solid, gas) no data available

j) Upper/lower

flammability or

explosive limits

no data available

- k) Vapour pressure no data available
 - l) Vapour density no data available
 - m) Relative density no data available
 - n) Water solubility no data available
 - o) Partition coefficient: noctanol/
water
no data available
 - p) Auto-ignition
temperature
no data available
 - q) Decomposition
temperature
no data available
 - r) Viscosity no data available
 - s) Explosive properties no data available t) Oxidizing properties no data available
- 9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY

- 10.1 Reactivity
no data available
 - 10.2 Chemical stability
Stable under recommended storage conditions.
 - 10.3 Possibility of hazardous reactions
no data available
 - 10.4 Conditions to avoid
no data available
 - 10.5 Incompatible materials
Strong oxidizing agents, Strong acids, Strong bases
 - 10.6 Hazardous decomposition products
Other decomposition products - no data available
- In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
- Acute toxicity
LD50 Oral - rat - 94 mg/kg
Remarks: Behavioral: Ataxia. Kidney, Ureter, Bladder: Urine volume increased. Blood: Hemorrhage.
- Skin corrosion/irritation
no data available
- Serious eye damage/eye irritation
no data available
- Respiratory or skin sensitisation
no data available
- Germ cell mutagenicity
May alter genetic material.
- Carcinogenicity
This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.
Possible human carcinogen
IARC: 1 - Group 1: Carcinogenic to humans (Cyclophosphamide monohydrate)
- Reproductive toxicity
May cause congenital malformation in the fetus.
- Specific target organ toxicity - single exposure
no data available
- Specific target organ toxicity - repeated exposure
no data available
- Aspiration hazard

no data available
Additional Information
RTECS: RP6157750

12. ECOLOGICAL INFORMATION

- 12.1 Toxicity
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 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
- 12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging
Dispose of as unused product

14. TRANSPORT INFORMATION

- 14.1 UN number
ADR/RID: 3464 IMDG: 3464 IATA: 3464
- 14.2 UN proper shipping name
ADR/RID: ORGANOPHOSPHORUS COMPOUND, SOLID, TOXIC, N.O.S. (N,N-bis(2-chloroethyl)-1,3,2-oxazaphosphinan-2-amine)
IMDG: ORGANOPHOSPHORUS COMPOUND, SOLID, TOXIC, N.O.S. (N,N-bis(2-chloroethyl)-1,3,2-oxazaphosphinan-2-amine)
IATA: Organophosphorus compound, solid, toxic, n.o.s. (N,N-bis(2-chloroethyl)-1,3,2-oxazaphosphinan-2-amine)
- 14.3 Transport hazard class(es)
ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1
- 14.4 Packaging group
ADR/RID: III IMDG: III IATA: III
- 14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no
- 14.6 Special precautions for user
no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

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. For lab use only!