

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 16 Aug 2022

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

### 1.1. Product name:

Cycloate

### 1.1. Catalog No.:

675261

### 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 [EU-GHS/CLP]  
Acute toxicity, Oral (Category 4)  
Classification according to EU Directives 67/548/EEC or 1999/45/EC  
Harmful if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

2.2 Label elements  
Labelling according Regulation (EC) No 1272/2008 [CLP]  
Pictogram Signal word Warning

Hazard statement(s)  
H302 Harmful if swallowed.  
Precautionary statement(s) none  
Supplemental Hazard  
Statements  
none  
According to European Directive 67/548/EEC as amended.  
Hazard symbol(s) R-phrases(s)  
R22 Harmful if swallowed.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
S-phrase(s)  
S61 Avoid release to the environment. Refer to special instructions/ Safety  
data sheets.  
2.3 Other hazards - none

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances  
Formula : C<sub>11</sub>H<sub>21</sub>NOS  
Molecular Weight : 215,36 g/mol  
Component Concentration  
S-Ethyl N-cyclohexylthiocarbamate  
CAS-No.  
EC-No.  
1134-23-2  
214-482-7  
-

#### 3.1.1. Formula

C<sub>11</sub>H<sub>21</sub>NOS

#### 3.1.2. Molecular Weight (g/mol)

215.36

#### 3.1.3. CAS-No.

1134-23-2

## 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. 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

### 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), Sulphur oxides

Nature of decomposition products not known.

Carbon oxides, nitrogen oxides (NOx), Sulphur oxides

### 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

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate Ventilation

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. 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 contact with skin and eyes. Avoid inhalation of vapour or mist.

Normal measures for preventive fire protection.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end uses  
no data available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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 respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance Form: liquid

b) Odour no data available c) Odour Threshold no data available

d) pH no data available

e) Melting point/freezing

point

no data available

f) Initial boiling point and

boiling range

145 - 146 °C at 13,00 hPa

g) Flash point > 100 °C

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 1,016 g/cm<sup>3</sup> at 20 °C

n) Water solubility no data available

o) Partition coefficient: noctanol/

water

log Pow: 3,88

p) Autoignition

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  
no data available  
10.3 Possibility of hazardous reactions  
no data available  
10.4 Conditions to avoid  
no data available  
10.5 Incompatible materials  
Strong oxidizing agents  
10.6 Hazardous decomposition products  
Other decomposition products - no data available

## 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects  
Acute toxicity  
LD50 Oral - rat - 1.678 mg/kg  
LC50 Inhalation - rat - 1 h - 90.000 mg/m<sup>3</sup> LD50 Dermal - rabbit - 3.000 mg/kg  
Skin corrosion/irritation  
no data available  
Serious eye damage/eye irritation  
no data available  
Respiratory or skin sensitization  
no data available  
Germ cell mutagenicity  
Genotoxicity in vivo - mouse - Unreported  
Cytogenetic analysis  
Carcinogenicity  
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
Reproductive toxicity  
no data available  
Specific target organ toxicity - single exposure  
no data available  
Specific target organ toxicity - repeated exposure  
no data available  
Aspiration hazard  
no data available  
Potential health effects  
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.  
Ingestion Harmful if swallowed.  
Skin May be harmful if absorbed through skin. May cause skin irritation.  
Eyes May cause eye irritation.  
Additional Information  
RTECS: GU7200000

## 12. ECOLOGICAL INFORMATION

- 12.1 Toxicity
  - Toxicity to fish LC50 - *Lepomis macrochirus* (Bluegill) - 4,6 - 6,8 mg/l - 96,0 h
  - Toxicity to daphnia and other aquatic invertebrates
  - EC50 - *Daphnia magna* (Water flea) - 24 mg/l - 48 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 Results of PBT and vPvB assessment
  - no data available
- 12.6 Other adverse effects
  - Toxic to aquatic life

## 13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods
  - Product
  - Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
  - Contaminated packaging
  - Dispose of as unused product

## 14. TRANSPORT INFORMATION

- 14.1 UN number
  - ADR/RID: 3082 IMDG: 3082 IATA: 3082
- 14.2 UN proper shipping name
  - ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (S-Ethyl Ncyclohexylthiocarbamate)
  - IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (S-Ethyl Ncyclohexylthiocarbamate)
  - IATA: Environmentally hazardous substance, liquid, n.o.s. (S-Ethyl N-cyclohexylthiocarbamate)
- 14.3 Transport hazard class(es)
  - ADR/RID: 9 IMDG: 9 IATA: 9
- 14.4 Packaging group
  - ADR/RID: III IMDG: III IATA: III
- 14.5 Environmental hazards
  - ADR/RID: yes IMDG Marine pollutant: yes IATA: yes
- 14.6 Special precautions for user
  - Further information
  - EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids

## 15. REGULATORY INFORMATION

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

no data available

## 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!