

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 09 Nov 2023

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

### 1.1. Product name:

Butachlor

### 1.1. Catalog No.:

672931

### 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 4), H302  
Short-term (acute) aquatic hazard (Category 1), H400  
Long-term (chronic) aquatic hazard (Category 1), H410

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

Label elements  
Labelling according Regulation (EC) No 1272/2008  
Signal word Warning  
Hazard statement(s)

H302 Harmful if swallowed.  
H410 Very toxic to aquatic life with long lasting effects.  
Precautionary statement(s)  
P273 Avoid release to the environment.  
P501 Dispose of contents/ container to an approved waste disposal plant.  
Supplemental Hazard Statements - none  
2.3 Other hazards - none

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1.1. Formula

C<sub>17</sub>H<sub>26</sub>ClNO<sub>2</sub>

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

311.85

#### 3.1.3. CAS-No.

23184-66-9

### 4. FIRST AID MEASURES

#### 4.1 Description of first-aid measures

##### General advice

Consult a physician. Show this material 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.

## 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 (NO<sub>x</sub>)  
Hydrogen chloride gas  
5.3 Advice for firefighters  
Wear self-contained breathing apparatus for firefighting if necessary.

## 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. Evacuate personnel to safe areas.  
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.  
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  
Advice on safe handling  
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.  
Advice on protection against fire and explosion  
Normal measures for preventive fire protection.  
Hygiene measures  
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.  
7.2 Conditions for safe storage, including any incompatibilities  
Storage conditions  
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.  
Storage class  
Storage class (TRGS 510): 10: Combustible liquids

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Ingredients with workplace control parameters

### 8.2 Exposure controls

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 gloves 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.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

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 fullface 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).

Control of environmental exposure

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

Discharge into the environment must be avoided.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance Form: liquid

Color: light yellow

b) Odor No data available

c) Odor Threshold No data available

d) pH No data available

e) Melting point/freezing point

No data available

f) Initial boiling point and boiling range 157 °C at 7,00 hPa

g) Flash point 100 °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) Vapor pressure < 0,001 hPa at 25 °C

l) Vapor density No data available

m) Density 1,070 g/cm<sup>3</sup>

Relative density No data available

n) Water solubility slightly soluble

o) Partition coefficient: n-octanol/water

log Pow: 4,5

p) Autoignition temperature

No data available

q) Decomposition temperature

No data available

r) Viscosity Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

s) Explosive properties No data available

t) Oxidizing properties 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

## 11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
  - Acute toxicity
  - Acute toxicity estimate Oral - 1.740 mg/kg  
(Calculation method)
  - LD50 Oral - Rat - 1.740 mg/kg
  - LC50 Inhalation - Rat - > 5300 ppm
  - Acute toxicity estimate Dermal - 3.470 mg/kg  
(Calculation method)
  - LD50 Dermal - Rabbit - 3.470 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  
Test Type: Hamster  
Test system: ovary  
Remarks: Cytogenetic analysis
  - Test Type: Hamster  
Test system: ovary  
Remarks: Sister chromatid exchange
  - Test Type: Human  
Test system: lymphocyte  
Remarks: Cytogenetic analysis
  - Carcinogenicity  
No data available
  - 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

## 12. ECOLOGICAL INFORMATION

- 12.1 Toxicity
  - Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 0,23 mg/l - 96,0 h
  - Toxicity to daphnia and other aquatic invertebrates  
LC50 - Daphnia magna (Water flea) - 1 - 10 mg/l - 48 h
- 12.2 Persistence and degradability  
No data available
- 12.3 Bioaccumulative potential  
Bioaccumulation Cyprinus carpio (Carp) - 14 d

- 0,97 microgram/l(Butachlor)  
Bioconcentration factor (BCF): 269  
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  
Very 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. (Butachlor)  
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Butachlor)  
IATA: Environmentally hazardous substance, liquid, n.o.s. (Butachlor)  
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  
Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

### 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.  
International Chemical Weapons Convention  
(CWC) Schedules of Toxic Chemicals and Precursors:  
Restrictions on the marketing and use of certain dangerous substances:  
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals:  
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).:  
National legislation  
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of

major-accident hazards involving dangerous substances.

: ENVIRONMENTAL HAZARDS

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!