

## EC Safety Data Sheet

as per Regulation (EC) No. 1907/2006

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Trade name : CHLOROBUTANOL Anhydrous , PH.EUR., USP / NF, BP, JP  
 Manufacturer/supplier : athenstaedt GmbH & Co KG, D-35088 Battenberg (Eder)  
 Revision date: 15/05/2025 Version 6.1 E

### 01. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Name of substance: **Chlorobutanol Anhydrous**  
 CAS No.: 57-15-8  
 EC No.: 200-317-6

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against:

Uses of the substance or mixture: SU 3 - Industrial use  
 Function: Active substance, pharmaceutical excipient

#### 1.3 Details of the supplier of the safety data sheet

Company name: athenstaedt GmbH & Co KG  
 Street: Am Beerberg 1  
 Town/city: D-35088 Battenberg (Eder)  
 Telephone: +49 (0) 6452 92942 0  
 Fax: +49 (0) 6452 92942 15  
 E-mail (contact person): [chemicals@athenstaedt.de](mailto:chemicals@athenstaedt.de)  
 Website: <https://athenstaedt.de/>  
 Informing department: Ref. HSE

#### 1.4 Emergency telephone number

24-hour emergency hotline of the poison control centre: +49 163 139 6613

### 02. Hazards identification

2.1 Classification of the substance or mixture: Classification according to Regulation (EC) 1272/2008 (CLP)

Acute tox. 4; H 302

See Section 16 for the wording of the hazard statements.

#### 2.2 Label elements \*):

Labelling according to Regulation (EC) 1272/2008 (CLP)

Signal word:

Caution

Pictograms:



Hazard statements:

H 302

Hazardous to the health if swallowed

Safety warnings:

P 264

Wash hands thoroughly after use.

P 270

Do not eat, drink or smoke during use.

P 301 + 312

IF SWALLOWED: If you feel unwell

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**P 330**

Call a poison centre or physician

**P 501**

Rinse mouth

Dispose of contents/container in a suitable recycling or disposal facility

**2.3 other hazards**

Has an antibacterial and antifungal effect

### 03. Composition/information on ingredients

**3.1 Substance:**

**Synonyms:**

Chloretone, 1,1,1-Trichlor-2-methyl-2-propanol

**Substance/product identifier:**

CAS no.: 57-15-8 EC no.: 200-317-6

**Molecular weight:**

177.46

**Sum formula:**

C<sub>4</sub>H<sub>7</sub>Cl<sub>3</sub>O

**Molecular weight:**

177.46 g/mol

### 04. First aid measures

**4.1 Description of the first aid measures \*)**

**General measures:**

Immediately remove all contaminated clothing and wash before wearing again.

**After inhalation:**

Provide fresh air, call medical assistance.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap.

**After contact with eyes:**

In case of contact with eyes, flush immediately with plenty of flowing water for sufficient time, holding eyelids apart, remove contact lenses, and consult an ophthalmologist.

**If ingestion:**

Never give anything by mouth to an unconscious person or a person with cramps. Rinse out mouth immediately and drink 1 glass of water, do not induce vomiting, call a physician immediately.

**4.2 Most important symptoms and effects, both acute and delayed \*)**

Central nervous system depression

**4.3 Indication of any immediate medical attention and special treatment needed \*)**

Symptomatic treatment.

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### 05. Firefighting measures

#### 5.1 Extinguishing media \*)

**Suitable extinguishing media:**

Extinguishing powder, foam, carbon dioxide (CO<sub>2</sub>); coordinate the extinguishing medium to suit the surroundings.

Water jet

**Unsuitable extinguishing media:**

#### 5.2 Special hazards arising from the substance or mixture

**In case of fire the following can develop:**

Hydrogen chloride (HCl)

#### 5.3 Advice for firefighters \*)

Wear protective respirator with independent air supply, chemical protection suit, protective coveralls

#### 5.4 additional information \*)

Collect fire extinguishing water and dispose of according to Section 13

Use water spray to protect persons and cool down containers in the danger zone.

Do not inhale explosion and combustion gases

Put down gases/vapours/mist with water spray

### 06. Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures:

Avoid contact with skin, eyes and clothing. Wear the prescribed protective clothing.

Keep people at a distance and stay on the windward side. Observe protective measures (see Sections 7 and 8). Provide adequate ventilation. Change contaminated clothing.

#### 6.2 Environmental protection measures:

Do not allow to enter the drains, surface water or groundwater. Contain contaminated water.

Dispose of according to regulations.

#### 6.3 Methods and material for containment and cleaning:

Collect by mechanical means. Prevent dust from forming. Dispose of contaminated material in accordance with the applicable regulations

#### 6.4 Reference to other sections

**Safe handling:**

See Section 7

**Personal protective equipment:**

See Section 8

**Disposal:**

See Section 13

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### 07. Handling and storage

#### 7.1 Precautions for safe handling \*)

##### Instructions for safe handling:

When handled in the open, use equipment with local exhaust ventilation. Prevent dust from forming. Do not inhale dust

##### Instructions on fire and explosion protection:

Take the usual preventive fire protection measures: keep away from heat

##### Notes on general hygiene measures at the workplace:

Avoid contact with skin, eyes and clothing. Take off soiled or soaked clothes immediately. Create skin protection plan and follow it. Wash hands and face thoroughly before breaks and at the end of work, shower if necessary. Do not eat, drink, smoke or sniff when using. Store work clothes separately.

#### 7.2 Conditions for safe storage, including any incompatibilities \*)

##### Requirements for storage rooms and vessels:

Keep tightly closed in original packaging. Provide for sufficient ventilation and punctiform suction at critical points.

##### Instructions on combined storage:

Keep away from food, beverages and animal feed.

##### Additional information on storage requirements:

Keep the container tightly closed and store it in a cool, well-ventilated location.

##### Storage class as per TRGS 510:

Protect from water and humidity.

11 (Combustible solids that cannot be assigned to any of the above storage classes).

#### 7.3 Specific end use(s):

Use in the pharmaceutical industry.

### 08. Exposure controls/personal protection

#### 8.1 Control parameters \*)

##### Additional information on limit values:

No national limit values defined to date.

#### 8.2 Exposure controls \*)



##### Appropriate engineering controls

When handled in the open, use equipment with local exhaust ventilation. Do not inhale dust. Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

##### Individual protective measures, e.g. personal protective equipment

##### Eye/face protection:

Safety glasses with side-shields

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### Hand protection:

Certified safety gloves  
 Suitable material: NBR (nitrile rubber) (0.4 mm).  
 Only chemical protective gloves with a CE mark including a four-digit test number may be worn when handling chemical agents. Chemical protective gloves are to be selected in their design depending on the hazardous substance concentration and quantity specific to the workplace. It is recommended to check the chemical resistance of the above mentioned protective gloves for specific applications with the glove manufacturer.

### Body protection:

Clothing as usual in the chemical industry or cat. II disposable clothes.

### Respiratory protection:

Wear respiratory protection in case of insufficient ventilation. Filter respirator (full face mask or mouthpiece assembly) with filter: ABEK & FFP 2

### Environmental exposure controls:

See Sections 6 and 7

## 09. Physical and chemical properties\*

### 9.1 Information on the basic physical and chemical properties \*)

State of aggregation:

Crystalline

Colour:

Colourless to white

Odour:

Camphorous

#### Changes of state:

Melting point/freezing point:

95 – 99 °C

Boiling point:

167 °C

at 1013 mbar

Flashpoint:

>110 °C

#### Flammability:

Solid/liquid:

Not determined

Gas:

Not applicable

#### Explosion hazards:

This product does not pose an explosion hazard.

Lower explosion limit

Not determined

Upper explosion limit

Not determined

Ignition temperature:

Not determined

Decomposition temperature:

Not determined

pH value (in aqueous solution):

4.5 – 6 at 20 °C 7.7 g/l

Water solubility (at 20 °C):

7.7 g/l

Solubility in other solvents:

Soluble in ethanol, chloroform, ether, acetone

Vapour pressure:

Not determined

Density:

Not determined

Bulk density:

Not determined

Relative vapour density:

Not determined

### 9.2 Other information:

The product is highly hygroscopic.

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### 010. Stability and reactivity

<b>10.1 Reactivity:</b>	No data available
<b>10.2 Chemical stability:</b>	No data available
<b>10.3 Possibility of hazardous reactions:</b>	With oxidising agents, acids and alkalis
<b>10.4 Conditions to avoid:</b>	When used as intended: none
<b>10.5 Incompatible materials:</b>	Oxidising agents, acids, alkalis
<b>10.6 Hazardous decomposition products:</b>	Hydrogen chloride (HCl)

### 011. Toxicological information

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 \*)

##### Acute toxicity

Acute oral toxicity:	LD50: 510 mg/kg rat Source: DIMI: RTECS (RT00) © Portions 2008
Acute dermal toxicity:	LD50: > 2000 mg/kg rabbit Third-party data sheet

##### Irritant and corrosive effects

The criteria for classification are not met based on available data.

##### Sensitisation effect:

The criteria for classification are not met based on available data.

##### Carcinogenicity, mutagenicity and toxicity for reproduction:

The criteria for classification are not met based on available data.

##### Specific target organ toxicity upon single exposure:

The criteria for classification are not met based on available data.

##### Specific target organ toxicity upon repeated exposure:

The criteria for classification are not met based on available data.

##### Aspiration hazard:

The criteria for classification are not met based on available data.

#### 11.2 Information on other hazards \*)

##### Swallowing large quantities may result in:

Depression, lethargy, slow breathing

##### Endocrine-disrupting properties:

There is no information available.

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### 012. Environmental information

#### 12.1 Toxicity:

The product is not eco-toxic.  
 Acute fish toxicity LC50: 135 mg/l 96 h  
 Source: GESTIS

#### 12.2 Persistence and decomposition:

No data available.

#### 12.3 Bioaccumulative potential:

Log P o/w 2.03  
 Source: LOG Pow database  
 Bioaccumulative potential negligible.

#### 12.4 Mobility in soil:

No information available.

#### 12.5 Results of PBT and vPvB assessment \*):

This substance does not meet the PBT/vPvB criteria of the REACH Regulation, Annex XIII.  
 The product was not tested.

#### 12.6 Endocrine-disrupting properties \*):

This substance has no endocrine-disrupting properties concerning non-target organisms.

#### 12.7 Other adverse effects:

No information available.

#### Other information:

Do not allow to drain into the sewers.  
 Do not drain into bodies of water or sewers and do not store in public landfills.  
 Do not allow to enter the environment.

### 013. Disposal considerations

#### 13.1 Waste treatment methods \*)

#### Recommendations for disposal:

Collect solid material in a dry place, place in a tightly sealed container and dispose of as hazardous waste in accordance with official regulations.

The assigning of waste code numbers/waste identifications must be carried out according to EAKV (European Waste Catalogue Order) in an industry and process-specific manner.

#### Disposal of uncleaned packings and recommended cleaning products:

Non-contaminated packaging that has been emptied completely can be recycled. Handle contaminated packaging in the same way as the substance itself.

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### 014. Transport information\*

#### Overland transport (ADR/RID)

14.1 UN number or ID number:

Does not constitute hazardous goods as defined by these transport regulations.

14.2 UN proper shipping name

Does not constitute hazardous goods as defined by these transport regulations.

14.3 Transport hazard class(es):

Does not constitute hazardous goods as defined by these transport regulations.

14.4 Packing group:

Does not constitute hazardous goods as defined by these transport regulations.

#### Transport by inland waterway (ADN)

Other applicable information on transport by inland waterway:

Does not constitute hazardous goods as defined by these transport regulations.

#### Maritime transport (IMDG)

Other applicable information on maritime transport:

Does not constitute hazardous goods as defined by these transport regulations.

#### Air transport (ICAO-TI/IATA-DGR)

Other applicable information on air transport:

Does not constitute hazardous goods as defined by these transport regulations.

#### 14.5 Environmental hazards

Hazardous to the environment

No

14.6 Special precautions for user:

No special precautions necessary.

14.7 Maritime bulk shipping as per IMO instruments:

Not applicable

### 015. Legislation

15.1 Safety, health and environmental regulations/specific legislation for the substance or mixture \*)

EU regulations

Information on SEVESO III Directive

2012/18/EU:

Not subject to the SEVESO III Directive.

National regulations

Occupational restrictions:

Observe occupational restrictions for young people (§ 22 JArbSchG [Youth Employment Protection Act]).  
 Observe occupational restrictions for expectant and nursing mothers (§§11 and 12 MuSchG [Maternity Protection Act])  
 Observe BGI 5151 "Sicheres Arbeiten in der pharmazeutischen Industrie" ["Working safely in the pharmaceutical industry"]  
 3 highly hazardous to water,  
 Code no. 855 as per § 6 AwSV [Ordinance on Facilities for Handling Substances Hazardous to Water]

Water hazard class:



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### Reference to TRGS 400 - Risk assessment

Storage hazard class: 11

(TRGS 510):

### 15.2 Chemical safety assessment

A safety assessment has not been made for this substance.

## 016. Other information\*

### Wording of the hazard statements

H 302

Harmful to health if swallowed.

**The information is based on the current state of our knowledge. Legally binding assurance of certain properties or suitability for a specific application cannot be derived from this information.**

Changes are marked with \*)

2.2	Hazard and precautionary statements updated as per CLP-VO.
4.1	First aid measures adjusted to the current state of knowledge.
4.2 / 4.3	Adjusted to current findings.
5	Updated.
7	Updated.
8	Updated.
9.1	Adaptation to new formal requirements.
11.1	Adaptation to new formal requirements.
11.2	Endocrine properties added.
12.5 / 12.6	Adaptation to new formal requirements.
13.1	Updated.
15.1	Form revised.

### Changes version 6.1 E

1.4 Emergency telephone number  
 24-hour emergency hotline of the poison control centre.

Replaces Version 6 E dated 10.10.2022