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## 1 Identification of the substance/mixture and of the company/undertaking

· **Informations to product No. 7182**

· **Product name:**

### Chloroformium Chloroform

· **Supplier of the Product / responsible Company:**

Caesar & Loretz GmbH

Herderstr. 31

40721 Hilden

Tel.: 02103/4994-0

Fax: 02103/32360

e-mail: info@caelo.de

· **Emergency telephone:**

Giftinformationszentrum Mainz

Langenbeckstr. 1, 55131 Mainz

Tel.: 06131/19240

· **Relevant identified uses of the substance or mixture and uses advised against:**

No further relevant information available.

· **Application of the substance / mixture:**

Ingredient for pharmaceutical drugs or active pharmaceutical ingredient.

## 2 Hazards identification

· **GHS-Labeling Elements:**



· **Signal word:** Danger

· **H-Phrases:**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Toxic if inhaled.

H351 Suspected of causing cancer

H372 Causes damage to organs through prolonged or repeated exposure

H361d Suspected of damaging the unborn child

· **P-Phrases:**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.


P281 Use personal protective equipment as required.

P305 IF IN EYES:

P351 Rinse cautiously with water for several minutes.

P308 IF exposed or concerned:

P313 Get medical advice/attention.

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**Acute Tox. 4 (oral)**  
**Acute Tox. 3 (inhal.)**  
**Skin Irrit. 2**  
**Eye Irrit. 2**  
**Carc. 2**  
**STOT RE 1**  
**Repr.2**

### 3 Composition / information on ingredients

· **Chemical characterization:**

**CAS-No. Substance name**

67-66-3 Chloroform

· **EINECS-No.:** 200-663-8

· **Index-No.:** 602-006-00-4

· **REACH Reg. No.:** 01-2119486657-20-0000

· **INCI-Name:** -

· **General information:** Product is stabilized with 0,6 - 1,0% Ethanol.

### 4 First aid measures

- **after inhalation:** Bring the person out of the contaminated area to fresh air, Seek medical help immediately. Show product-label or this MSDS.
- **after skin contact:** Take off contaminated clothes and shoes, wash immediately with plenty of water and soap.
- **after eye contact:** Rinse out with plenty of water with the eyelid wide open. Seek medical advice.
- **after swallowing:** Caution: Vomiting: Danger of aspiration! Seek medical advice.
- **Medical advice:** Laxans: Paraffin oil ( 3ml/kg). Sodium sulphate (1 spoon / 1/4l water). Activated coal. No ricinus oil. No alcohol.

### 5 Fire-fighting measures

- **Suitable extinguishing media:** All regular extinguishing media can be used. Select fire fighting measures suitable to surrounding environment.
- **Specific hazards during fire fighting:** Combustible but not flammable. In case of fire dangerous gases / vapours can be released: Hydrogen chloride, phosgene
- **Special protective equipment for fire-fighters:** Suitable protective clothes and respiratory protection.
- **Additional information:** Prevent fire extinguishing water from contaminating surface water, the ground water system or soil. Residues must be deposited according to local regulations.

### 6 Accidental release measures

- **Personal protective measures:** Do not inhale vapours.
- **Environmental protective measures:** Prevent from entering into surface water, the ground water system or soil.  
Danger for drinking water if bigger quantities are leaking into soil or ground water.

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• **Methods for cleaning:** Good ventilation, respiratory protection. Absorb with liquid-binding material: Sand, silica gel, acid binder, universal binder, saw dust. Disposal according to Chapter 13 of this MSDS. Let residues evaporate.

## 7 Handling and storage

- **Handling:**
- **Advice on safe handling:** No special measures required.
- **Storage:**
- **Requirements for storage areas and containers:** Keep container tightly closed. Room temperature, good ventilation. Accessible only for professional persons.
- **Advices on common storage:** Not required.

## 8 Exposure controls / personal protective equipment

**Components with limit values that require monitoring at the workplace:**

TWA: 2ppm; 10 mg/m<sup>3</sup>

AGW: 0,5 ppm; 2,5 mg/m<sup>3</sup>


- **Personal protective equipment:**
- **General protective and hygiene measures:**  
Keep away from food, beverages and animal food.  
Take off contaminated clothes immediately.  
Wash hands before breaks and after work.  
Avoid contact with eyes and skin.
- **Respiratory protection:** Protection mask: Filter A.
- **Hand protection:** Protection gloves of nitrile rubber.
- **Eye protection:** Safety glasses.

## 9 Physical and chemical properties

- **Form:** liquid
- **Colour:** colourless
- **Odour:** characteristic
- **Melting point / melting range:** - 63 °C
- **Boiling point / boiling range:** 60, 5 – 61,5 °C
- **Flash point:** not determined
- **Ignition temperature:** 982 °C
- **Explosion hazard:** The product is not explosive.
- **Vapour pressure:** (20 °C) 213,3 hPa
- **Density:** (20 °C) 1,492 g/cm<sup>3</sup>
- **Solubility in / Miscibility with**
- **Water:** (20 °C) 8 g/l
- **Viscosity:**
- **dynamic:** (20 °C) 0,56 mPas

## 10 Stability and reactivity

- **Materials to avoid:** Alkali metals, earth alkali metal, metal powders, peroxides, alcoholates, strong

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bases, ketones in basic environment, alkali hydroxides/alcohols, organic nitro compounds, alkali amides, oxygen, nitrogen oxides, non-metal hydrides, metal organic compounds.

• **Hazardous decomposition products:** Hydrogen chloride, Phosgene, Chlorine.

• **Additional information:** Heat sensitive. Light sensitive. Vapours can react to phosgene with air moisture!

## 11 Toxicological information

• **Acute toxicity:**

**LD/LD50-data relevant for hazard classification:**

Chloroform LD50 oral 908 mg/kg rat

LC50 inhalativ 75 mg/l/1h rat

LDLo oral 140 mg/kg man

LCLo inhalativ 25000 ppm(V)/5min man

• **Primary irritating effect:**

• **on skin:** Irritant effect on skin and mucous membranes.

• **on eyes:** Irritant.

• **on respiratory organs:** Coughing, Respiratory insufficiency.

• **after swallowing:** Illness, Vomiting.

• **Other information (experimental toxicology):** After resorption: excitation, cramps, narcosis.

• **Sub-acute / chronic toxicity:** IARC: 2B - Group 2B: Possible carcinogen for man (Chloroform)  
Risk of teratogenicity has to be considered as likely. Pregnant women should not be exposed to the product. Possible damage of liver and kidneys.

## 12 Ecological information

• **Aquatic toxicity:**

LC50 - *Leuciscus idus* 162 mg/l - 48h

LC100 - *Leuciscus idus* 220 mg/l - 48h

LC50 - *Danio rerio* (Zebrafish) - 121 mg/l - 96h

NOEC - *Oryzias latipes* - 122 mg/l - 10d

NOEC - *Oncorhynchus mykiss* - 24 mg/l - 96h

EC50 - *Daphnia magna* - 79,00 mg/l - 24h

Immobilisierung EC50 - *Daphnia magna* - 51,6 mg/l - 48h

NOEC - *Daphnia magna* - 120 mg/l - 11d

• **General advices:** Prevent from leaking into ground water, environment waters or drainage even not in small quantities. Danger for drinking water even if small quantities are leaking into the soil.

• **Water hazard class:** 3 (VwVwS): very hazardous for water.


## 13 Disposal considerations

• **Product:**

• **Recommendation:** Disposal according to local regulations as solvent waste.

• **Empty contaminated packaging:**

• **Recommendation:** Disposal according to the local regulations.

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## 14 Transport informations

- **Land transport according to ADR:**
- **Proper shipping name:** Chloroform
- **Class:** 6.1
- **UN-number:** 1888
- **Packing group:** III
- **Classification code:** T1
- **Limited quantities (Table 3.4.6. ADR):** 5 L
- **Hazard classification number:** 60
- **Special provisions (Chapter 3.3 ADR):** -
- **Additional informations for sea transport IMDG:**
- **EMS-No.:** F-A, S-A
- **Properties:** -

## 15 Regulatory information

- **Labelling according to actual legislation (GHS, Globally Harmonized System of Classification and Labelling of Chemicals):**

The product is classified and labelled according to GHS-regulations.

- **Hazard symbols:** GHS08, GHS06

- **Signal word:** Danger

- **H-Phrases:**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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- **National regulations (Germany):**

- **Water hazard class:** see chapter 12

- **Storage class TRGS 510:** 6.1D

- **VbF class:** -

## 16 Other Information

The information provided in this MSDS is correct to the best of our knowledge at the date of edition.

- **Reason for last revision:** Adjustment to regulation (EC) 1907/2006 (REACH) and GHS-labelling system.