

# Safety data sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Date of issue: 18.04.2019      Supersedes edition of: 02.11.2018

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

### 1.1 Product identifier

Product name:            Combidur

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

Identified uses: Cleaner

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

Company:                Otto Oehme GmbH  
                              Industriestraße 20  
                              D-90584 Allersberg Deutschland  
                              Tel. +49 9176 98050  
                              info@oehme-lorito.de

### 1.4 Emergency telephone number

GIZ Nord Poisons Centre, Göttingen Tel. +49 (0) 551 19240

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

*Classification (Regulation (EC) No. 1272/2008)*

Skin Irrit. 2, H315

Eye Irrit. 2, H319

Full text of hazard statements: See under section 16.

### 2.2 Label elements

*Labelling (Regulation (EC) No. 1272/2008)*

*Hazard pictograms:*



*Signal word:*

Warning

*Hazard statements:*

H315 Causes skin irritation.

H319 Causes serious eye irritation.

*Precautionary statements:*

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P337 + P313 If eye irritation persists: Get medical advice/attention.

Product name: Combidur  
 Revision date: 18.04.2019

### 2.3 Other hazards

Not known.

## SECTION 3: Composition / information on ingredients

Solution in water.

### Hazardous components (Regulation (EC) No. 1272/2008)

Chemical name	Classification according to EC-Regulation			Content
CAS-No.	EC-No.	EC-Index-No.		
Ethanol				< 10 %
64-17-5	200-578-6	603-002-00-5	Flam. Liq. 2, H225 Eye Irrit. 2, H319	
REACH Registration Number: 01-2119457610-43				
Ethyl methyl ketone				< 0.1 %
78-93-3	201-159-0	606-002-00-3	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	
REACH Registration Number: 01-2119457290-43				
Potassium hydroxide				< 2%
1310-58-3	215-181-3	019-002-00-8	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1A, H314	
REACH Registration Number: 01-2119487136-33				
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., potassium salts (*)				< 5 %
84961-78-4	284-669-6		Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	

Full text of hazard statements: See under section 16.

(\*) A registration number is not available for this substance as the substance or its use is exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

After inhalation: Fresh air. Call in physician if feeling unwell.

After skin contact: Wash off with plenty of water. Remove contaminated clothing. Consult a physician if skin irritations occur.

After eye contact: Rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist immediately.

After swallowing: Make victim drink plenty of water (two glasses at most), avoid vomiting. Call in physician.

Product name: Combidur  
Revision date: 18.04.2019

#### 4.2 Most important symptoms and effects, both acute and delayed

Irritant effects, respiratory paralysis, dermatitis, narcosis, inebriation, euphoria, nausea, vomiting.  
Drying-out effect resulting in rough and chapped skin.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### *Suitable extinguishing media*

Carbon dioxide, foam, dry powder.

##### *Unsuitable extinguishing media*

For this substance / mixture no limitations of extinguishing agents are given.

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

Contains combustible material. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air at ambient temperatures. Pay attention to flashback. Development of hazardous combustion gases or vapours possible in the event of fire.

#### 5.3 Advice for firefighters

##### *Special protective equipment for firefighters*

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

##### *Further information*

Prevent fire-fighting water from entering surface water or groundwater.

### SECTION 6: Accidental release measures

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

Caution: Risk of slipping.

Do not inhale vapours/aerosols. Avoid substance contact. Use personal protective equipment as required, see section 8.2. Ensure supply of fresh air in enclosed rooms. In case of inadequate ventilation wear respiratory protection. Keep away from sources of ignition, no smoking.

#### 6.2 Environmental precautions

Do not get undiluted into sewerage system. Risk of explosion.

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

Take up with incombustible liquid-absorbent material. Forward for disposal. Clean up affected area.

#### 6.4 Reference to other sections

Indications about waste treatment see section 13.

Product name: Combidur  
Revision date: 18.04.2019

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### *Notes for safe handling*

Ensure adequate ventilation. Avoid contact with skin and eyes. Do not inhale vapours/aerosols. Avoid generation of vapours/aerosols. See section 8.

#### *Notes for prevention of fire and explosion*

Keep away from heat and sources of ignition. Take precautionary measures against static discharge. Vapours heavier than air. Vapours may form explosive mixtures with air.

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

Store cool above 5 °C. Keep away from sun and heat. Tightly closed in a well-ventilated place. Away from sources of ignition and heat.

### 7.3 Specific end use(s)

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### *Ethanol*

EH40 WEL

Name	Ethanol
Time weighted average (TWA)	1000 ppm 1920 mg/m <sup>3</sup>

#### *Ethyl methyl ketone*

ECTLV

Name	Butan-2-one
Limit value 8 hours	200 ppm 600 mg/m <sup>3</sup>

Short term (< 15 min.)	300 ppm 900 mg/m <sup>3</sup>
------------------------	----------------------------------

EH40 WEL

Name	Butan-2-one
Short term exposure limit (STEL)	300 ppm 899 mg/m <sup>3</sup>

Time weighted average (TWA)	200 ppm 600 mg/m <sup>3</sup>
-----------------------------	----------------------------------

Skin designation	Can be absorbed through the skin.
------------------	-----------------------------------

### 8.2 Exposure controls

#### *Individual protection measures*

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Product name: Combidur  
Revision date: 18.04.2019

**Eye / face protection:**

Tightly fitting safety goggles (EN 166).

**Hand protection:**

Material: Nitrile rubber.

Thickness: 0.1 mm

Breakthrough time: > 480 min

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN 374, e.g. Franz Mensch Nitrile Safe Premium.

This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves.

**Other protective equipment**

Acid-resistant protective clothing.

**Respiratory protection:**

Required when vapours/aerosols are generated. Filter A2 P2 (EN 14387).

*Hygiene measures*

Change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Form:	liquid
Colour:	green
Odour:	perfumed
pH value	10.5
Melting point	not specified
Boiling point	not specified
Ignition temperature	not applicable
Flash point	46 °C, do not sustain combustion
Explosion limits	lower >1.3 % (Ethanol)
	upper 15 % (Ethanol)
Density (20 °C)	~ 1 g/cm <sup>3</sup>
Solubility in water	miscible

**9.2 Other information**

None.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

Forms explosive mixtures with air on intense heating.

**10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature).

Product name: Combidur  
Revision date: 18.04.2019

### 10.3 Possibility of hazardous reactions

Risk of explosion/exothermic reaction with:

Hydrogen peroxide, perchlorates, perchloric acid, nitric acid, mercury(II) nitrate, permanganic acid, nitriles, peroxy compounds, strong oxidizing agents, nitrosyl compounds, peroxides, sodium, potassium, halogen oxides, calcium hypochlorite, nitrogen dioxide, metallic oxides, uranium hexafluoride, iodides, chlorine, alkali metals, alkaline earth metals, alkali oxides, ethylene oxide potassium permanganate, sulfuric acid.

Risk of ignition or formation of inflammable gases or vapours with:

Halogen-halogen compounds, chromium(VI) oxide, chromyl chloride, fluorine, hydrides, oxides of phosphorus, platinum.

### 10.4 Conditions to avoid

Warming.

### 10.5 Incompatible materials

Rubber, various plastics.

Substances to avoid:

Bases, acids.

### 10.6 Hazardous decomposition products

See section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### *Acute oral toxicity*

LD<sub>50</sub> rat: 10470 mg/kg (OECD 401; Ethanol)

Symptoms: Nausea, vomiting.

LD<sub>50</sub> rat: 333 mg/kg (OECD 425; potassium hydroxide)

Symptoms: Pain, shock, vomiting, oedema, collapse, death. If ingested, severe burns of the mouth, as well as a danger of perforation of the oesophagus and the stomach.

LD<sub>50</sub> rat: 1470 mg/kg (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)

#### *Acute dermal toxicity*

Symptoms: Dermatitis, drying-out effect resulting in rough and chapped skin.

LD<sub>50</sub> rat: >2000 mg/kg (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)

#### *Acute inhalation toxicity*

LC<sub>50</sub> rat: 124.7 mg/l /4 h vapour (OECD 403; Ethanol)

Symptoms: Slight mucosal irritations, absorption.

Symptoms: Burns of mucous membranes, cough, shortness of breath. Possible damages: Damage of the respiratory tract. Inhalation may lead to the formation of oedemas in the respiratory tract.

#### *Skin irritation*

Rabbit: Eye irritation (OECD 405; Ethanol).

Causes serious eye irritation.

Rabbit: Causes burns (IUCLID; potassium hydroxide, anhydrous).

Drying-out effect resulting in rough and chapped skin. Necrosis.

Mixture causes severe burns.

Corrosive (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)

Causes severe skin burns.

Product name: Combidur  
Revision date: 18.04.2019

#### *Eye irritation*

Rabbit: Eye irritation (OECD 405; Ethanol).

Causes serious eye irritation.

Rabbit: Causes serious eye damage (OECD 405; potassium hydroxide, anhydrous).

Risk of corneal clouding. Risk of blindness! Necrosis.

Mixture causes serious eye damage.

Corrosive (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.).

Causes serious eye damage.

#### *Sensitisation*

Sensitisation test (Magnusson and Kligman): Negative (IUCLID; Ethanol).

Sensitisation test: Guinea pig: Negative (IUCLID; potassium hydroxide, anhydrous).

#### *Genotoxicity in vitro*

Ames test: Salmonella typhimurium: Negative (National Toxicology Program; Ethanol).

Mutagenicity (mammal cell test): Mouse lymphoma test: Negative (OECD 476; Ethanol).

Ames test: Escherichia coli: Negative (IUCLID; potassium hydroxide, anhydrous).

Ames test: Salmonella typhimurium: Negative (National Toxicology Program; Ethanol).

Mutagenicity (mammal cell test): Mouse lymphoma test: Negative (OECD 476; Ethanol).

#### *Specific target organ toxicity – single exposure*

The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### *Specific target organ toxicity – repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### *Aspiration hazard*

No aspiration toxicity classification.

### **11.2 Further information**

Systemic effects: Euphoria.

After absorption of large quantities: Dizziness, inebriation, narcosis, respiratory paralysis.

Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### *Toxicity to fish*

Leuciscus idus LC<sub>50</sub>: 8140 mg/l /48 h (IUCLID; Ethanol)

Gambusia affinis LC<sub>50</sub>: 80 mg/l /96 h (IUCLID; potassium hydroxide, anhydrous)

Lepomis macrochirus LC<sub>50</sub>: 1-10 mg/l /96 h (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)

#### *Toxicity to daphnia and other aquatic invertebrates*

Daphnia magna: EC<sub>50</sub>: 9268-14221 mg/l /48 h (IUCLID; Ethanol)

Entosiphon sulcatum: EC<sub>5</sub>: 65 mg/l /72 h (maximum permissible toxic concentration; external MSDS; Ethanol)

Daphnia sp. EC<sub>50</sub>: 1-10 mg/l /48 h (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)

Product name: Combidur  
Revision date: 18.04.2019

#### *Toxicity to algae*

Scenedesmus quadricauda: IC<sub>5</sub>: 5000 mg/l / 7 d (maximum permissible toxic concentration; external MSDS; Ethanol)  
EC<sub>50</sub>: 1-10 mg/l (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.).

#### *Toxicity to bacteria*

Pseudomonas putida EC<sub>5</sub>: 6500 mg/l / 16 h (maximum permissible toxic concentration; IUCLID; Ethanol)

### **12.2 Persistence and degradability**

#### *Biodegradability*

The surfactants contained in this preparation complies with the Biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.  
Data to support this assertion are held at the disposal of the competent authorities of the member states and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Biodegradation: 94 % (OECD 301E; Ethanol)

Readily biodegradable (Ethanol)

Biodegradation: >60 % / 28 d (OECD 301B; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)

Readily biodegradable (Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)

#### *Biochemical oxygen demand (BOD)*

930-1670 mg/g / 5 d (external MSDS; Ethanol)

#### *Theoretical oxygen demand (ThOD)*

2100 mg/g (external MSDS; Ethanol)

#### *Ratio BOD / ThBOD*

BOD<sub>5</sub>: 74 % (IUCLID; Ethanol)

#### *Ratio COD / ThBOD*

90 % (external MSDS; Ethanol)

### **12.3 Bioaccumulative potential**

Partition coefficient: n-octanol / water: log P<sub>ow</sub>: -0.31 (external MSDS; Ethanol).

No bioaccumulation is to be expected (Ethanol).

Bioconcentration factor: > 100 (external MSDS; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.).

### **12.4 Mobility in soil**

No information 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**

#### *Additional ecological information:*

Do not allow to enter waters, waste water, or soil!



Product name: Combidur  
Revision date: 18.04.2019

**SECTION 13: Disposal considerations****13.1 Waste treatment methods***Product:*

Chemicals must be disposed of in compliance with the respective national regulations.

Code of the waste  
200129\*  
070601\*

Name according to directive 2000/532/EC:  
detergents containing dangerous substances.  
aqueous washing liquids and mother liquors.

*Packaging:*

Product packaging must be disposed of in compliance with the country-specific regulations or must be to a packaging return system.

Code of the waste  
200139

Name according to directive 2000/532/EC:  
plastics.

**SECTION 14: Transport information**

Not classified as dangerous in the meaning of transport regulations.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture***EU regulations*

Ingredients according to Regulation (EC) on detergents No. 648/2004:

Anionic surfactants: 5 % or over but less than 15 %

Perfumes. Linalool, Limonene, Hexyl Cinnamal, Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde, Geraniol.

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out.

**SECTION 16: Other information***Reason for alteration:*

SECTION 9: Physical and chemical properties

*Full text of hazard statements referred to under sections 2 and 3:*

H225 Highly flammable liquid and vapour.

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

**Safety Data Sheet**

according to Regulation (EC) No. 1907/2006 (REACH)

Product name: Combidur  
Revision date: 18.04.2019

*The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.*