

## Dodecyl trimethyl ammonium chloride 112-00-5 MSDS

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

#### Product identifiers

Product name : Dodecyltrimethylammonium chloride

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 112-00-5

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

Identified uses : Laboratory chemicals, Manufacture of substances

### SECTION 2: Hazards identification

#### Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Acute aquatic toxicity (Category 1), H400

For the full text of the H-Statements mentioned in this Section, see Section 16.

##### Classification according to EU Directives 67/548/EEC or 1999/45/EC

Xn, N Harmful, Dangerous for the R22, R36/37/38, R50 environment

For the full text of the R-phrases mentioned in this Section, see Section 16.

#### Label elements

##### Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

Precautionary statement(s)

P261 Avoid breathing dust.

P273 Avoid release to the environment.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove

contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard none

Statements

#### **Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **SECTION 3: Composition/information on ingredients**

#### **Substances**

Formula : C<sub>15</sub>H<sub>34</sub>ClN  
Molecular weight : 263,89 g/mol  
CAS-No. : 112-00-5  
EC-No. : 203-927-0

#### **Hazardous ingredients according to Regulation (EC) No 1272/2008**

Component	Classification	Concentration
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##### **Dodecyltrimethylammonium chloride**

CAS-No.	112-00-5	Acute Tox. 4; Skin Irrit. 2; Eye	<= 100 %
EC-No.	203-927-0	Irrit. 2; STOT SE 3; Aquatic	
Acute 1; H302, H315, H319, H335, H400			

#### **Hazardous ingredients according to Directive 1999/45/EC**

Component	Classification	Concentration
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##### **Dodecyltrimethylammonium chloride**

CAS-No.	112-00-5	Xn, N, R22 - R36/37/38 - R50	<= 100 %
EC-No.	203-927-0		

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

### **SECTION 4: First aid measures**

#### **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**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

## **SECTION 5: Firefighting measures**

### **Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

### **Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

### **Further information**

No data available

## **SECTION 6: Accidental release measures**

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure

adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

### **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.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **Reference to other sections**

For disposal see section 13.

## **SECTION 7: Handling and storage**

### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

hygroscopic Store under inert gas.

Storage class (TRGS 510): Non Combustible Solids

### **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**

### **Control parameters**

## **Components with workplace control parameters**

### **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**

Safety glasses with side-shields conforming to EN166 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374,

contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **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**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.

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.

## **SECTION 9: Physical and chemical properties**

### **Information on basic physical and chemical properties**

- a) Appearance      Form: solid
- b) Odour      No data available
- c) Odour Threshold      No data available
- d) pH      No data available
- e) Melting point/freezing      Melting point/range: 246 °C  
point
- f) Initial boiling point and      No data available  
boiling range
- g) Flash point      No data available
- h) Evaporation rate      No data available
- i) Flammability (solid, gas)      No data available
- j) Upper/lower      No data available  
flammability or  
explosive limits
- k) Vapour pressure      No data available
- l) Vapour density      No data available
- m) Relative density      No data available
- n) Water solubility      No data available
- o) Partition coefficient: n-      log Pow: 1,22 - The preceding data, or interpretation of data,  
was  
octanol/water      determined using Quantitative Structure Activity Relationship (QSAR)  
modeling.
- p) Auto-ignition      No data available  
temperature
- q) Decomposition      No data available  
temperature
- r) Viscosity      No data available
- s) Explosive properties      No data available
- t) Oxidizing properties      No data available

### **Other safety information**

No data available

## **SECTION 10: Stability and reactivity**

### **Reactivity**

No data available

### **Chemical stability**

Stable under recommended storage conditions.

### **Possibility of hazardous reactions**

No data available

**Conditions to avoid**

No data available

**Incompatible materials**

Strong oxidizing agents

**Hazardous decomposition products**

Other decomposition products - No data available

In the event of fire: see section 5

**SECTION 11: Toxicological information****Information on toxicological effects****Acute toxicity**

Harmful if swallowed.

**Skin corrosion/irritation**

Moderate skin irritation

**Serious eye damage/eye irritation**

Moderate eye irritation

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

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**

Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: JR2122500

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**SECTION 12: Ecological information****Toxicity**

Toxicity to fish LC50 - Carassius auratus (goldfish) - 0,35 mg/l - 24,0 h

Toxicity to daphnia and LC50 - Daphnia magna (Water flea) - 0,06 mg/l - 24 h

other aquatic

invertebrates

Toxicity to algae      EC50 - Algae - 0,09 mg/l - 96 h

#### **Persistence and degradability**

Expected to be biodegradable

#### **Bioaccumulative potential**

No bioaccumulation is to be expected (log Pow <= 4).

#### **Mobility in soil**

No data available

#### **Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### **Other adverse effects**

Very toxic to aquatic life.

### **SECTION 13: Disposal considerations**

#### **Waste treatment methods**

##### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

##### **Contaminated packaging**

Dispose of as unused product.

### **SECTION 14: Transport information**

#### **UN number**

ADR/RID: 3077      IMDG: 3077      IATA: 3077

#### **UN proper shipping name**

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Dodecyltrimethylammonium chloride)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Dodecyltrimethylammonium chloride)

IATA: Environmentally hazardous substance, solid, n.o.s. (Dodecyltrimethylammonium chloride)

#### **Transport hazard class(es)**

ADR/RID: 9      IMDG: 9      IATA: 9

#### **Packaging group**

ADR/RID: III      IMDG: III      IATA: III

#### **Environmental hazards**

ADR/RID: yes      IMDG Marine pollutant: yes      IATA: yes

#### **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.

### **SECTION 15: Regulatory information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### **Safety, health and environmental regulations/legislation specific for the substance or mixture**

No data available

#### **Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

### **SECTION 16: Other information**

#### **Full text of H-Statements referred to under sections 2 and 3.**

Acute Tox.      Acute toxicity  
Aquatic Acute      Acute aquatic toxicity  
Eye Irrit.      Eye irritation  
H302      Harmful if swallowed.  
H315      Causes skin irritation.  
H319      Causes serious eye irritation.  
H335      May cause respiratory irritation.  
H400      Very toxic to aquatic life.  
Skin Irrit.      Skin irritation

#### **Full text of R-phrases referred to under sections 2 and 3**

N      Dangerous for the environment  
Xn      Harmful  
R22      Harmful if swallowed.  
R36/37/38      Irritating to eyes, respiratory system and skin.  
R50      Very toxic to aquatic organisms.

#### **Further information**

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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. Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.