

## Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 28.04.2009


Version 5

Revision: 28.04.2009

### 1 Identification of substance:

- **Product details:**
- **Trade name:** Algozid
- **Article number:** 52404
- **Application of the substance / the preparation**  
 Printing and reproduction of recorded media  
 Photographic activities  
 Biocide  
 Algicide  
 Reserved for industrial and professional use.
- **Manufacturer/Supplier:**  
 ADEFO-CHEMIE GmbH  
 Justus-von-Liebig-Str. 24-26  
 D-63128 Dietzenbach  
 Tel.: +49 6074 84239-0  
 Fax: +49 6074 84239-63  
 E-Mail: service@adefo-chemie.de  
 www.adefo-chemie.de
- **Informing department:**  
 Tel.: +49 6074 84239-0  
 Fax: +49 6074 84239-63  
 Competent person according to 1907/2006/EC, Annex II:  
 E-Mail: kr@calbe-chemie.de
- **Emergency information:** Tel.: 0700-24112112 (CAL)

### 2 Hazards identification

- **Hazard designation:**  
 Xn Harmful
- **Information pertaining to particular dangers for man and environment**  
 The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
 R 36/38 Irritating to eyes and skin.  
 R 43 May cause sensitisation by skin contact.  
 R 68 Possible risk of irreversible effects.
- **Classification system**  
 The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

### 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

CAS: 7173-51-5	didecyldimethylammonium chloride	C, Xn; R 22-34	5.0-10%
EINECS: 230-525-2			

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CAS: 107-22-2 EINECS: 203-474-9	glyoxal	Xn, Xi; R 20-36/38-43-68	2.0-5.0%
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol	Xi, F; R 11-36-67	2.0-5.0%

**Additional information**

Main component: water

For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

- **General information** Instantly remove any clothing soiled by the product.
- **After inhalation** Supply fresh air.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water (> 15 min). Then consult doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; instantly call for medical help.
- **Information for doctor**
- **The following symptoms may occur:** No known symptoms to date.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
Formation of toxic gases is possible during heating or in case of fire.  
Can be released in case of fire  
Hydrogen chloride (HCl)  
Nitrogen oxides (NO<sub>x</sub>)
- **Protective equipment:**  
Do not inhale explosion gases or combustion gases.  
Wear self-contained breathing apparatus.

### 6 Accidental release measures

- **Person-related safety precautions:** Wear protective clothing.
- **Measures for environmental protection:**  
Do not allow to enter drainage system, surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Additional information:**  
See Section 8 for information on personal protection equipment.

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See Section 13 for information on disposal.

## 7 Handling and storage

- **Handling**
- **Information for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Store in cool, dry place in tightly closed containers.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.
- **Storage**
- **Requirements to be met by storerooms and containers:** Store only in the original container.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in a cool place.
- **Recommended storage temperature:** 5-30°C
- **Storage class** LGK 12 (VCI-Concept)

## 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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

### 67-63-0 propan-2-ol

WEL	Short-term value: 1250 mg/m <sup>3</sup> , 500 ppm Long-term value: 999 mg/m <sup>3</sup> , 400 ppm
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- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
The usual precautionary measures should be adhered to general rules for handling chemicals.  
Keep away from foodstuffs, beverages and food.  
Take off immediately all contaminated clothing  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.  
Do not eat, drink or smoke while working.
- **Breathing equipment:** Use breathing protection in case of insufficient ventilation.
- **Protection of hands:**  
Protective gloves.  
The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374.  
This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.  
Only use chemical-protective gloves with CE-labelling of category III.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
Nitrile rubber, NBR  
Recommended thickness of the material:  $\geq 0.40$  mm

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- **Penetration time of glove material**  
Value for permeation: Level  $\geq 6$  (480 min)  
The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
- **As protection from splashes gloves made of the following materials are suitable:**  
Chloroprene rubber, CR  
Value for permeation: Level:  
 $\geq 4$  (120 min)
- **Not suitable are gloves made of the following materials:** Natural rubber, NR
- **Eye protection:** Tightly sealed safety glasses.
- **Body protection:** Protective work clothing.

### 9 Physical and chemical properties:

#### · General Information

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless Clear
<b>Odour:</b>	Characteristic

#### · Change in condition

**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** Not determined

· <b>Flash point:</b>	> 65°C
· <b>Ignition temperature:</b>	Not determined
· <b>Self-inflammability:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product is not explosive.
· <b>Density at 20°C</b>	1.006 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with Water:</b>	miscible
· <b>pH-value at 20°C:</b>	ca. 5.0
· <b>Viscosity:</b>	
<b>dynamic:</b>	Not determined
<b>kinematic:</b>	Not determined
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	4.0 %
<b>Water:</b>	82.0 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.  
To avoid thermal decomposition do not overheat.  
(> 60°C)
- **Dangerous reactions** No dangerous reactions known

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- **Dangerous products of decomposition:** No dangerous decomposition products known

### 11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**7173-51-5 didecyldimethylammonium chloride**

Oral | LD50 | 645 mg/kg

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritant effect.

- **Sensitization:** Sensitizing effect by skin contact is possible by prolonged exposure.

- **Subacute to chronic toxicity:** Possible risk of irreversible effects.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

This statement was deduced from the properties of the single components.

- **Sensitisation** May cause sensitisation by skin contact.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Possible risk of irreversible effects.

### 12 Ecological information:

- **Information about elimination (persistence and degradability):** Easily biodegradable

- **Behaviour in environmental systems:** Not determined

- **Mobility and bioaccumulation potential:** Not determined

- **Ecotoxicological effects:** Not determined

- **Acquatic toxicity:** Not determined

- **Behaviour in sewage processing plants:** Not determined

- **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system.

At present there are no ecotoxicological assessments.

The product does not contain organically bounded halogens (AOX-free).

### 13 Disposal considerations

- **Product:**

- **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Must be specially treated under adherence to official regulations.

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- **Uncleaned packagings:**
- **Recommendation:**  
 Non contaminated packagings can be used for recycling.  
 Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.  
 Packagings that cannot be cleaned are to be disposed of in the same manner as the product.  
 EAK-No. 15 01 10
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID-GGVS/E Class:** -

- **Maritime transport IMDG:**
- **IMDG Class:** -

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **Transport/Additional information:** Not dangerous according to the above specifications.

### 15 Regulatory information

- **Designation according to EC guidelines:**  
 The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

- **Code letter and hazard designation of product:**



Xn Harmful

- **Hazard-determining components of labelling:**  
 didecyldimethylammonium chloride  
 glyoxal

- **Risk phrases:**  
 36/38 Irritating to eyes and skin.  
 43 May cause sensitisation by skin contact.  
 68 Possible risk of irreversible effects.

- **Safety phrases:**  
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

- **National regulations**

- **Technical instructions (air):**

Class	Share in %
I	4.3
NK	4.0

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· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

### 16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant R-phrases**

- 11 Highly flammable.
- 20 Harmful by inhalation.
- 22 Harmful if swallowed.
- 34 Causes burns.
- 36 Irritating to eyes.
- 36/38 Irritating to eyes and skin.
- 43 May cause sensitisation by skin contact.
- 67 Vapours may cause drowsiness and dizziness.
- 68 Possible risk of irreversible effects.

· **Recommended restriction of use** No public product, only for commercial use

· **Sources**

- applicable EEC directives:
- 1999/45/EC last change 2006/8/EC
  - 67/548/EC last change 2004/73/EC (29. ATP)
- Internal physical tests, MSDS of the ingredients

· \* **Data compared to the previous version altered.**

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