

# SAFETY DATA SHEET

K-CARE® DODAC

## Section 1. Identification

**GHS product identifier:** K-CARE® DODAC  
**Other means of Identification:** Dioctyl dimethyl ammonium chloride  
**Product type:** Liquid  
**Material uses:** Microbiocide, Fungicide.  
**Supplier's details:** CDI co. Ltd.  
**Emergency Contact:** +82 31 366 3588 + 65-7737948

## Section 2. Hazards identification

**Classification of the substance or mixture** Acute aquatic toxicity - Category 1  
 Chronic aquatic toxicity - Category 2



### GHS label elements

**Hazard pictograms:**

**Signal word:**

**Hazard statements:**

Danger  
 H227: Combustible liquid  
 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 statements

**Prevention:**

Wear eye protection / face protection. Wash skin thoroughly after handling.

**Response:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P261: Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P262: Do not get in eyes, on skin, or on clothing.  
 P264: Wash skin thoroughly after handling.  
 P270 Do not eat, drink, or smoke when using this product.  
 P 273: Avoid release to the environment.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.  
 P305- P351- P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses. If present and easy to do. Continue rinsing.  
 P314: Get Medical advice/attention if you feel unwell.  
 P337- P313: If eye irritation persists: Get medical advice/attention.  
 P360: Immediately rinse contaminated clothing and skin with plenty of water before removing clothes.  
 P501: Dispose of contents/container to an approved waste disposal plant.

**Carcinogenic Effects:**

**Mutagenic Effects:**

**Teratogenic Effects:**

**Developmental Toxicity:**

Not available  
 Not available  
 Not available  
 Not available

## Section 3. Composition/information on ingredients

**Common Name:** Didecyl Dimethyl Ammonium Chloride

| <b>Ingredient name</b>              | <b>%</b> | <b>CAS number</b> |
|-------------------------------------|----------|-------------------|
| Diocetyl Dimethyl Ammonium Chloride | 80 - 82  | 5538-94-3         |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Ingestion:** Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.
- After Inhalation:** Dust inhalation: Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring these instructions.
- After eye Contact:** Immediately flush with plenty of water. Remove any contact lenses and open eyes wide apart. Call an ambulance and continue flushing during transportation to hospital. Bring these instructions.
- After Skin Contact:** Remove contaminated clothes and rinse skin thoroughly with water. In case of eczema or other skin disorders: Seek medical attention and bring these instructions.

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.
- Unsuitable extinguishing media:** None known.
- Special hazards arising from the chemical:** During fire, gases hazardous to health may be formed. (Nox, HCl)
- Special Information:** Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

## Section 6. Accidental release measures

- Personal precautions:** Avoid inhalation of dust and contact with skin and eyes. Use work methods which minimise dust production. For personal protection. See section 8.
- Environmental precautions:** Do not discharge into drains, water courses or onto the ground.
- Methods for cleaning up:** Collect spillage with shovel, broom or the like. Flush contaminated area with plenty of water. For water disposal, see section 13.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures:** Avoid inhalation of dust and contact with skin and eyes. Change contaminated clothing. Observe good chemical hygiene practices.
- Technical measures:** Use work method which minimize dust production. Avoid spreading dust.
- Technical precautions:** Provide easy access to water supply and eye wash facilities.
- Technical measures for safe storage:** No special precautions.
- Storage conditions:** Store in closed original container. Do not store near heat sources or expose to excessive temperatures.

## Section 8. Exposure controls/personal protection

|   |  |
|---|--|
| <b>Engineering measures:</b>            | Provide adequate ventilation. The risk of inhalation of dust must be minimized as much as possible. An eye wash bottle must be available at the work site.     |
| <b>Personal protection:</b>             | Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment         |
| <b>Respiratory equipment:</b>           | During dust-raising work: Use respiratory equipment with particle filter, type P2. The use of filtering respirators should be limited to max. 3 hours per day. |
| <b>Hand protection:</b>                 | Risk of contact: Wear protective gloves. Nitrile gloves are recommended.   |
| <b>Eye protection:</b>                  | Wear goggles/face shield.  |
| <b>Skin protection:</b>                 | Wear apron or protective clothing in case of splashes.   |
| <b>Hygiene measures:</b>                | Wash hands after contact.  |
| <b>Environmental Exposure Controls:</b> | Not available.   |

## Section 9. Physical and chemical properties

|                                   |                  |
|-----------------------------------|------------------|
| <b>Physical state:</b>            | Liquid           |
| <b>Appearance:</b>                | Color-off liquid |
| <b>Odour:</b>                     | Not available    |
| <b>pH</b>                         | 5-8 (5 g/l)      |
| <b>Melting Point:</b>             | Not available    |
| <b>Boiling Point:</b>             | 212°C            |
| <b>Decomposition Temperature:</b> | 150-300°C        |
| <b>Flash Point:</b>               | Not available    |
| <b>Explosion Limit:</b>           | Not relevant     |
| <b>Relative Density:</b>          | approx. 0,5      |
| <b>Solubility in Water:</b>       | Not available    |

## Section 10. Stability and reactivity

|  |  |
|--|--|
| <b>Chemical stability:</b>               | Stable under normal temperature conditions.  |
| <b>Conditions/ materials to avoid:</b>   | Heating. Strong oxidising substances.  |
| <b>Hazardous decomposition products:</b> | If heated to more than 200°C, the following substance(s) will be released:<br>Alkyl chloride |

## Section 11. Toxicological information

|                          |   |
|--------------------------|---|
| <b>Inhalation:</b>       | Dust may irritate throat and respiratory and cause coughing.                    |
| <b>Skin Contact:</b>     | Irritating.   |
| <b>Eye contact:</b>      | Risk of serious damage to eyes. Immediate first aid is necessary.               |
| <b>Ingestion:</b>        | Harmful if swallowed. Causes stomach pain, vomiting, diarrhoea and convulsions. |
| <b>Specific effects:</b> | None known.   |

## Section 12. Ecological information

|                                   |  |
|-----------------------------------|--|
| <b>Ecotoxicity:</b>               | Very toxic to aquatic organisms.<br>Trimethyloctad Ecotoxicity:ecylammonium chloride (0,001 < LC50 ≤ 0,01 mg/l ):<br>LC50 (Danio rerio, 96 hours): 0.033 mg/l (OECD Test Guideline 203)<br>EC50 (Daphnia magna, 48 hours): 0,021 mg/l (OECD Test Guideline 202)<br>IC50 (Pseudokirchneriella subcapitata, 72 hours): 0,0052 mg/l (OECD Test Guideline 201) |
| <b>Bioaccumulative potential:</b> | Bioaccumulation: Is not expected to be bioaccumulable.   |
| <b>Degradability:</b>             | DODAC< 20 ppm; The product is expected to be biodegradable.  |
| <b>Mobility:</b>                  | The product is water soluble and may spread in water systems.  |
| <b>Other adverse effects:</b>     | None known.  |

## Section 13. Disposal considerations

Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste.

**Waste from residues:** EWC-code 07 06 07

## Section 14. Transport information

|                                   | <b>UN</b>  | <b>IMDG</b>  | <b>IATA</b>  |
|-----------------------------------|--|--|--|
| <b>UN Number</b>                  | UN2922   | UN2922   | UN2922   |
| <b>UN Proper shipping name</b>    | CORROSIVE LIQUID, TOXIC, N.O.S. (Dioctyl dimethyl ammonium chloride) | CORROSIVE LIQUID, TOXIC, N.O.S. (Dioctyl dimethyl ammonium chloride) | CORROSIVE LIQUID, TOXIC, N.O.S. (Dioctyl dimethyl ammonium chloride) |
| <b>Transport hazard class(es)</b> | 8  | 8  | 8  |
| <b>Packing group</b>              | III  | III  | III  |
| <b>Environmental hazards</b>      | Yes  | Yes  | Yes  |
| <b>Additional information</b>     | EmS: F-A, S-B  | EmS: F-A, S-B  | EmS: F-A, S-B  |

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

## Section 15. Regulatory information

**Labelling:** Contain: Dioctyl dimethyl ammonium chloride

**Risk Phrases:**

- R10 - Flammable.
- R22 Harmful if swallowed.
- R38 Irritating to skin.
- R41 Risk of serious damage to eyes
- R50 Very toxic to aquatic organisms.

**Safety Phrases**

- S22 Do not breathe dust.
- S24/25 Avoid contact with skin and eyes.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S37/39 Wear suitable protective gloves and eye/face protection.
- S60 This material and its container must be disposed of as hazardous waste.
- S61 Avoid release to the environment. Refer to special instruction/safety data sheets.

## Section 16. Other information

### Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

CDI ASIA urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.