

# SAFETY DATA SHEET

K-CARE® DDAC80

## Section 1. Identification

**GHS product identifier:** K-CARE® DDAC80  
**Other means of Identification:** Didecyl Dimethyl Ammonium Chloride  
**Product type:** Liquid  
**Material uses:** Disinfectant.  
**Supplier's details:** CDI co. Ltd.  
**Emergency Contact:** +82 31 366 3588 + 65-7737948  
**GHS product identifier:** K-CARE® DDAC

## 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:**

Not available

**Mutagenic Effects:**

Not available

**Teratogenic Effects:**

Not available

**Developmental Toxicity:**

Not available

## Section 3. Composition/information on ingredients

**Common Name:** Didecyl Dimethyl Ammonium Chloride  
**Synonyms (s):** DDAC; Didecyl 7173-51-5 dimethyl Ammonium Chloride  
**Formula:** C<sub>22</sub>H<sub>48</sub>ClN  
**CAS Number:** 7173-51-5

Ingredient name	%	CAS number
Didecyl Dimethyl Ammonium Chloride	80 - 82	7173-51-5
Ethanol	10 - 17	64-17-5
Water	QS	7732-18-5

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:** Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea and even death. Contact medical center quickly. Never give anything by mouth to an unconscious person. Get medical attention.

**After Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Mists and vapors can irritate the throat and respiratory tract. High vapor concentrations may cause central nervous system effects. May be fatal if inhaled. Symptoms may include headaches, dizziness, and drowsiness. Get medical attention.

**After eye Contact:** Causes burns and may result in permanent injury to eyes including blindness. Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention.

**After Skin Contact:** Causes corrosive burns. Brief exposures may cause irritation and defatting of the skin. Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media:** Dry chemical, foam, carbon dioxide, or water fog. Solid water streams may spread burning liquid. Water may not be effective.

**Unsuitable extinguishing media:** None known.

**Special hazards arising from the chemical:** Toxic fumes, nitrogen oxides and carbon monoxide may be formed in fire. Explosive mixtures can form with air. Combustion products are toxic. Solvent vapors can travel to an ignition source and flash back.

**Special Information:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

## Section 6. Accidental release measures

**Small Spill:** Mop and pick up the material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind. Keep out of low areas where vapors may accumulate. Eliminate all ignition sources (no smoking, flares, sparks, or flames) in immediate area. Keep away from heat. Keep away from sources of ignition. Provide ventilation. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

## Section 7. Handling and storage

### Precautions for safe handling

<b>Protective measures:</b>	Avoid direct physical contact. Comply with all applicable laws and regulations for handling Do not handle until all safety precautions have been read and understood. Operators should wear antistatic footwear and clothing. Do not inhale the steam prolonged or repeated. Check regularly for leaks. Do not use damaged containers. Store according to current laws and regulations Please pay attention to incompatibilities materials and conditions to avoid.
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## Section 8. Exposure controls/personal protection

<b>Airborne Exposure Limits</b>	AICGIH TWA: 1000ppm (TWA)
<b>Ethanol:</b>	NIO SH: 1000ppm (TWA)
<b>Protection On Hand:</b>	PVC or PE gloves
<b>Ventilation System:</b>	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.
<b>Personal Respirators (NIOSH-Approved):</b>	For conditions of use where exposure to the substance is apparent and engineering controls are not feasible. Consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-face piece positive-pressure, air -supplied respirator.
<b>Warning:</b>	Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

## Section 9. Physical and chemical properties

<b>Physical state:</b>	Liquid
<b>Appearance:</b>	colourless to light yellow clear liquid
<b>Odor:</b>	Almost almond
<b>pH (10% solution)</b>	6.0 – 9.0
<b>Molecular Weight:</b>	362.1
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>48</sub> ClN
<b>Flash point:</b>	Not available
<b>Evaporation Rate:</b>	Not available
<b>Explosion properties:</b>	Not available
<b>Vapor pressure:</b>	Not available
<b>Solubility in Water:</b>	Soluble in water
<b>Partition coefficient: n- octanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	Not available

## Section 10. Stability and reactivity

<b>Chemical stability:</b>	DDAC. Didecyldimethyl Ammonium Chloride is stable under ordinary conditions of use and storage
<b>Hazardous Polymerization:</b>	Not reported. However it can explode under certain conditions.
<b>Incompatibilites:</b>	Acids, oxidizing agents, heat, and sparks.
<b>Hazardous decomposition products:</b>	Carbon dioxide, carbon monoxide, nitrogen oxides, and toxic fumes may form when heated to decomposition.

## Section 11. Toxicological information

<b>Oral rat LD50:</b>	400 mg/kg
<b>Dermal LD50:</b>	1990 mg/kg
<b>Mutagenic Effects:</b>	No information available.
<b>Teratogenicity:</b>	No information available.
<b>Reproductive Effects:</b>	No information available.
<b>IARC Monographs:</b>	No information available.
<b>Ethanol</b>	Carcinogenic to humans.
<b>US ACGIH Threshold Limit Values:</b>	A3 carcinogen
<b>Ethanol:</b>	Group A3 Confirmed annual carcinogen with unknown relevance to humans.

## Section 12. Ecological information

<b>Ecotoxicity:</b>	Very Toxic to aquatic organisms.
<b>Degradability:</b>	The product is biodegradable.

## Section 13. Disposal considerations

<b>Waste Treatment Methods:</b>	Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.
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## Section 14. Transport information

	<b>UN</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN Number</b>	UN2920	UN2920	UN2920
<b>UN Proper shipping name</b>	Corrosive Liquids. Flammable. N.O.S. (Quaternary Ammonium Compound. Ethanol).	Corrosive Liquids. Flammable. N.O.S. (Quaternary Ammonium Compound. Ethanol).	Corrosive Liquids. Flammable. N.O.S. (Quaternary Ammonium Compound. Ethanol).
<b>Transport hazard class(es)</b>	8	8	8
<b>Packing group</b>	II	II	II
<b>Environmental hazards</b>	Yes	Yes	Yes
<b>Additional information</b>	-	-	-

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

## Section 15. Regulatory information

**OSHA:** Corrosive

**None of the chemicals in this product have SNUR under TSCA.**

**Section 12b:** None of the chemicals in this product are listed under TSCA Section 12b.

**CERLA Hazardous Substances and Corresponding ROs:** 1000 pounds is a reportable quantity.

**SARA 302:** No chemicals in this material are subject to the reporting requirements of SARA Title III Section 302.

**SARA 313:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:** Acute Hazard. Fire.

**USA State Right to Know:** Ethanol is listed in AZ, Ca, Ct, FL, ID, MA, MN, NJ, PA, RI

**California Prop 65**

**No Significant Risk Level:** None of the chemicals in this product are listed.

**EINECS EC Code:** 230 230-525-2

**Hazard Symbols:** C

**Risk Phrases:**

R10 - Flammable.

R21/22 - Harmful in contact with skin & swallowing.

R34 - Causes burns.

R50 - Very toxic to aquatic organism.

R67 - Vapors may cause drowsiness

### Safety Phrases

S16 - Keep away from source of ignition. No smoking.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 - In case of contact with skin, wash immediately with plenty of soap & water.

S36/37/39 - Wear suitable protective clothing, gloves, and eye/face protection.

S46 - If swallowed, seek medical advice immediately and show this MSDS S57 - Use appropriate containment to avoid environment contamination.

S24/25 Avoid contact with skin and eyes.

### WHMIS (Canada):

Health: 3

Flammability: 2

Reactivity: 0

Personal Protection: N/A

### National Fire Protection Association (USA)

Health: 3

Flammability: 2

Reactivity: 0

Specific hazard:

## 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.