

# **MATERIAL SAFETY DATA SHEET (MSDS)**

# **1. PRODUCT NAME AND COMPANY IDENTIFICATION**

#### Product Name:

- Didecyldimethylammonium Chloride 80% (DDAC 80%)
- Synonyms: DDAC, Didecyl Dimethyl Ammonium Chloride

#### Manufacturer/Supplier:

Swadesh (India) Chemical Pvt. Ltd. Address: Survey No: 512, Plot No. 7, Shri Hari Industrial Park, Kadadra Village, Near ZAK GIDC, Dehgam, Gandhinagar, Gujarat, India – 382330 Contact:

- Email: business@swadeshindia.in
- Website: www.swadeshindia.in

#### **Recommended Use:**

• Biocide, disinfectant, preservative, surfactant.

### 2. COMPOSITION/INGREDIENT INFORMATION

Component	CAS No.	Concentration (%)
Didecyldimethylammonium Chloride	7173-51-5	80%

#### Additional Notes:

• Impurities: May contain trace isopropanol (<1%) as stabilizer.



## **3. HAZARDS IDENTIFICATION**

#### **GHS Classification:**

- Acute Toxicity (Oral, Category 3 | Dermal, Category 4)
- Skin Corrosion/Irritation (Category 2)
- Eye Damage (Category 1)
- Hazardous to Aquatic Life (Chronic, Category 1)

#### Hazard Statements (H-Codes):

- H301 (Toxic if swallowed)
- H312 (Harmful in contact with skin)
- H314 (Causes severe skin burns and eye damage)
- H410 (Very toxic to aquatic life with long-lasting effects)

#### **Precautionary Statements (P-Codes):**

- P280 (Wear protective gloves/eye protection/face shield)
- P301+P310 (IF SWALLOWED: Immediately call a poison center)
- P303+P361+P353 (IF ON SKIN: Remove contaminated clothing. Rinse skin with water)
- P501 (Dispose of contents/container as hazardous waste)

### 4. FIRST AID MEASURES

- Inhalation: Move to fresh air; seek medical attention if breathing difficulty occurs.
- Skin Contact: Wash with soap and water; remove contaminated clothing.
- Eye Contact: Rinse immediately with water for 15 mins; consult an ophthalmologist if irritation persists.
- Ingestion: Rinse mouth, drink water; **DO NOT induce vomiting.** Seek medical help if symptoms appear.

### **5. FIRE FIGHTING MEASURES**

- Extinguishing Media: Use alcohol-resistant foam, CO<sub>2</sub>, or dry chemical powder.
- Hazardous Combustion Products: Hydrogen chloride (HCl), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO).
- Special PPE: Full-face respirator and firefighting suit.



# 6. ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

- Spill Response:
  - **Personal Precautions:** Evacuate area; wear chemical-resistant gloves (e.g., nitrile), goggles, and apron.
  - **Containment:** Use inert absorbents (vermiculite, sand) to prevent spread.
  - **Cleanup:** Collect spilled material in sealed containers for disposal.

### 7. HANDLING AND STORAGE

- Handling:
  - $\circ$  ~ Use in closed systems with local exhaust ventilation. Avoid aerosol formation.
- Storage:
  - Store in HDPE containers away from acids, oxidizers, and foodstuffs. Keep at 15–25°C.

### 8. EXPOSURE CONTROL/PERSONAL PROTECTION

- Engineering Controls: Chemical fume hood or closed processing.
- PPE:
  - Gloves: Nitrile or neoprene ( $\geq$ 0.4 mm thickness).
  - Eye/Face: Tight-fitting goggles + face shield.
  - Clothing: Chemical-resistant apron + boots.
  - **Respiratory Protection:** NIOSH-approved mask (if ventilation is insufficient).

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value	
Appearance	Clear to yellowish viscous liquid	
Odor	Characteristic amine-like	
pH (1% solution)	6.0 – 8.5	
Density (20°C)	~0.95 g/cm³	
Flash Point	>100°C (non-flammable)	



### **10. STABILITY AND REACTIVITY**

**Chemical Stability:** 

• Stable under normal conditions

#### **Incompatible Materials:**

• Strong oxidizers (e.g., hypochlorite), acids, and anionic surfactants.

#### Hazardous Decomposition Products:

• Thermal breakdown releases toxic gases (HCl, amines).

### **11. TOXICOLOGICAL INFORMATION**

#### Acute Toxicity:

- LD₅₀ (oral, rat): 250 mg/kg
- LD<sub>50</sub> (dermal, rabbit): 400 mg/kg

#### Skin Irritation:

• May cause allergic reactions.

Carcinogenicity:

• LC<sub>50</sub> (Daphnia magna, 48h): 0.1 mg/L.

### **12. ECOLOGICAL INFORMATION**

**Bioaccumulation:** 

- Log Pow = 4.2 (high potential).
- Persistence/Bioaccumulation: Not readily biodegradable; avoid release to waterways.

### **13. DISPOSAL CONSIDERATIONS**

- Waste Code: Hazardous waste (check local regulations).
- **Disposal Method:** Incineration in licensed facilities with scrubbers.



### **14. TRANSPORT INFORMATION**

#### DOT/IMO/IATA:

• Not classified as dangerous goods

### **15. REGULATORY INFORMATION**

India:

• Compliant with CPCB regulations

International:

- REACH registered
- OSHA compliant

### **16. ADDITIONAL INFORMATION**

**Revision Date :**20/04/24

**Disclaimer:** This MSDS is provided for informational purposes only. Users should make their own determination of suitability for any particular purpose.