MATERIAL SAFETY DATA SHEET (MSDS)

1. PRODUCT NAME AND COMPANY IDENTIFICATION

Product Name:

- Benzalkonium Chloride 50% (BAC 50%)
- Synonyms: Alkyl dimethyl benzyl ammonium chloride, BKC, Quaternary ammonium compound

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.inWebsite: www.swadeshindia.in

Recommended Use:

• Disinfectant, preservative, biocide, surfactant

2. COMPOSITION/INGREDIENT INFORMATION

Component	CAS No.	Concentration (%)
Benzalkonium Chloride (C12-C16 alkyl)	63449-41-2	50%

Additional Notes:

- Impurities: Contains a mixture of alkyl chain lengths (C12, C14, C16)
- May contain ethanol (<5%) as stabilizer.

3. HAZARDS IDENTIFICATION

GHS Classification:

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

Hazard Statements (H-Codes):

- H302 (Harmful if swallowed)
- H311 (Toxic 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):

- P273 (Avoid release to the environment)
- P280 (Wear protective gloves/eye protection/face shield)
- P301+P310 (IF SWALLOWED: Immediately call a poison center)
- P305+P351+P338 (IF IN EYES: Rinse cautiously with water for several minutes)

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: Alcohol-resistant foam, CO₂, dry chemical powder
- Hazardous Combustion Products: Hydrogen chloride (HCl), nitrogen oxides (NO_x), carbon monoxide (CO)
- Special PPE: Self-contained breathing apparatus (SCBA) and full protective gear

6. ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

- Spill Response:
 - o Personal Precautions: Wear nitrile gloves, goggles, and protective clothing
 - **Containment:** Prevent entry into drains or watercourses
 - Cleanup Methods: Absorb with inert material (sand, vermiculite); collect in containers for disposal

7. HANDLING AND STORAGE

- Handling:
 - Use in well-ventilated areas; avoid contact with skin and eyes
- Storage:
 - Store in original container at 5-30°C; keep away from strong oxidizers and acids

8. EXPOSURE CONTROL/PERSONAL PROTECTION

- Engineering Controls: Local exhaust ventilation.
- PPE:
 - Gloves: Nitrile (≥0.4 mm thickness)
 - Eye Protection: Tight-fitting goggles + face shield
 - O Clothing: Chemical-resistant apron
 - Respiratory: NIOSH-approved mask if ventilation is inadequate

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Clear, colorless to pale yellow viscous liquid
Odor	Characteristic aromatic
pH (10% solution)	6.0 - 8.0
Density (20°C)	~0.98 g/cm³
Flash Point	>100°C (non-flammable)



10. STABILITY AND REACTIVITY

Chemical Stability:

• Stable under normal conditions

Incompatible Materials:

• Strong oxidizers, anionic surfactants, soaps

Hazardous Decomposition Products:

• Thermal decomposition may release toxic gases

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

• LD₅₀ (oral, rat): 300 mg/kg

• LD₅₀ (dermal, rabbit): 400 mg/kg

Skin Irritation:

• May cause allergic reactions in some individuals

Ecotoxicity:

LC₅₀ (fish, 96h): 0.5 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity:

- Bioaccumulation: Potential to bioaccumulate
- Persistence: Not readily biodegradable

13. DISPOSAL CONSIDERATIONS

- Waste Code: Hazardous waste (check local regulations)
- Disposal Method: Incineration in licensed facility



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.