

# BENZYLDIMETHYLOCTADECYLAMMONIUM CHLORIDE

BZO

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> Benzyl dimethylstearyl ammonium chloride Stearyl dimethylbenzyl ammonium chloride Tallow benzyl dimethyl ammonium chloride	Solid or thick liquid      White      Mild odor
<b>Keep people away.</b> Avoid contact with liquid and solid. Notify local health and pollution control agencies. Protect water intakes.	
<b>Fire</b>	Combustible. POISONOUS GASES MAY BE PRODUCED IN FIRE. Wear goggles and self-contained breathing apparatus. Extinguish with water.
<b>Exposure</b>	CALL FOR MEDICAL AID.  LIQUID OR SOLID Irritating to skin and eyes. If swallowed will cause nausea or vomiting. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm. DO NOT INDUCE VOMITTING.
<b>Water Pollution</b>	Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.

### 1. CORRECTIVE RESPONSE ACTIONS

Dilute and disperse  
Stop discharge

### 2. CHEMICAL DESIGNATIONS

- 2.1 **CG Compatibility Group:** Not listed.
- 2.2 **Formula:** (C<sub>18</sub>H<sub>37</sub>CH<sub>2</sub>)(CH<sub>3</sub>)<sub>2</sub>(C<sub>18</sub>H<sub>37</sub>)NCl
- 2.3 **IMO/UN Designation:** Not listed
- 2.4 **DOT ID No.:** Not listed
- 2.5 **CAS Registry No.:** Currently not available
- 2.6 **NAERG Guide No.:** Not listed
- 2.7 **Standard Industrial Trade Classification:** 51481

### 3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Goggles or face shield; rubber gloves
- 3.2 **Symptoms Following Exposure:** Ingestion causes gastrointestinal disturbances. Contact with chemical irritates eyes and skin and may damage eyes.
- 3.3 **Treatment of Exposure:** INGESTION: do NOT induce vomiting; give large quantities of fluid and call physician immediately. EYES: flush with plenty of water for at least 15 min.; call a physician. SKIN: remove contaminated clothing; flush skin with plenty of water.
- 3.4 **TLV-TWA:** Not listed.
- 3.5 **TLV-STEL:** Not listed.
- 3.6 **TLV-Ceiling:** Not listed.
- 3.7 **Toxicity by Ingestion:** Grade 2; oral rat LD<sub>50</sub> = 4,000 mg/kg
- 3.8 **Toxicity by Inhalation:** Currently not available.
- 3.9 **Chronic Toxicity:** Currently not available
- 3.10 **Vapor (Gas) Irritant Characteristics:** Currently not available
- 3.11 **Liquid or Solid Characteristics:** Currently not available
- 3.12 **Odor Threshold:** Currently not available
- 3.13 **IDLH Value:** Not listed.
- 3.14 **OSHA PEL-TWA:** Not listed.
- 3.15 **OSHA PEL-STEL:** Not listed.
- 3.16 **OSHA PEL-Ceiling:** Not listed.
- 3.17 **EPA AEGL:** Not listed

### 4. FIRE HAZARDS

- 4.1 **Flash Point:** Not pertinent
- 4.2 **Flammable Limits in Air:** Not pertinent
- 4.3 **Fire Extinguishing Agents:** Not pertinent
- 4.4 **Fire Extinguishing Agents Not to Be Used:** Not pertinent
- 4.5 **Special Hazards of Combustion Products:** Toxic oxides of nitrogen and hydrochloric acid fumes may form in fires.
- 4.6 **Behavior in Fire:** Currently not available
- 4.7 **Auto Ignition Temperature:** Not pertinent
- 4.8 **Electrical Hazards:** Not pertinent
- 4.9 **Burning Rate:** Not pertinent
- 4.10 **Adiabatic Flame Temperature:** Currently not available
- 4.11 **Stoichiometric Air to Fuel Ratio:** 191.6 (calc.)
- 4.12 **Flame Temperature:** Currently not available
- 4.13 **Combustion Molar Ratio (Reactant to Product):** 53.5 (calc.)
- 4.14 **Minimum Oxygen Concentration for Combustion (MOCC):** Not listed

### 5. CHEMICAL REACTIVITY

- 5.1 **Reactivity with Water:** No reaction
- 5.2 **Reactivity with Common Materials:** Currently not available
- 5.3 **Stability During Transport:** Stable
- 5.4 **Neutralizing Agents for Acids and Caustics:** Not pertinent
- 5.5 **Polymerization:** Not pertinent
- 5.6 **Inhibitor of Polymerization:** Not pertinent

### 6. WATER POLLUTION

- 6.1 **Aquatic Toxicity:** 5 ppm/48 hr/australorboris snails/80% kill/fresh water
- 6.2 **Waterfowl Toxicity:** Currently not available
- 6.3 **Biological Oxygen Demand (BOD):** Currently not available
- 6.4 **Food Chain Concentration Potential:** None
- 6.5 **GESAMP Hazard Profile:** Not listed

### 7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Pure, 95+%; 24-26% solution in water.
- 7.2 **Storage Temperature:** Ambient
- 7.3 **Inert Atmosphere:** No requirement
- 7.4 **Venting:** Open
- 7.5 **IMO Pollution Category:** Currently not available
- 7.6 **Ship Type:** Currently not available
- 7.7 **Barge Hull Type:** Currently not available

### 8. HAZARD CLASSIFICATIONS

- 8.1 **49 CFR Category:** Not listed
- 8.2 **49 CFR Class:** Not pertinent
- 8.3 **49 CFR Package Group:** Not listed.
- 8.4 **Marine Pollutant:** No
- 8.5 **NFPA Hazard Classification:** Not listed
- 8.6 **EPA Reportable Quantity:** Not listed.
- 8.7 **EPA Pollution Category:** Not listed.
- 8.8 **RCRA Waste Number:** Not listed
- 8.9 **EPA FWPCA List:** Not listed

### 9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 **Physical State at 15° C and 1 atm:** Solid
- 9.2 **Molecular Weight:** 411
- 9.3 **Boiling Point at 1 atm:** Not pertinent (decomposes at 120°C)
- 9.4 **Freezing Point:** Not pertinent
- 9.5 **Critical Temperature:** Not pertinent
- 9.6 **Critical Pressure:** Not pertinent
- 9.7 **Specific Gravity:** >1.1 at 20°C (solid)
- 9.8 **Liquid Surface Tension:** Not pertinent
- 9.9 **Liquid Water Interfacial Tension:** Not pertinent
- 9.10 **Vapor (Gas) Specific Gravity:** Not pertinent
- 9.11 **Ratio of Specific Heats of Vapor (Gas):** Not pertinent
- 9.12 **Latent Heat of Vaporization:** Not pertinent
- 9.13 **Heat of Combustion:** Not pertinent
- 9.14 **Heat of Decomposition:** Not pertinent
- 9.15 **Heat of Solution:** Currently not available
- 9.16 **Heat of Polymerization:** Not pertinent
- 9.17 **Heat of Fusion:** Currently not available
- 9.18 **Limiting Value:** Currently not available
- 9.19 **Reid Vapor Pressure:** Currently not available

### NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	V E R Y  S O L U B L E		N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T