

# BENZYLTRIMETHYLMONIUM CHLORIDE

BMA

| CAUTIONARY RESPONSE INFORMATION  |   |              |                  |
|--|---|--------------|------------------|
| Common Synonyms<br>BTMAC<br>Trimethylbenzylammonium chloride   | Liquid  | Light yellow | Mild almond odor |
| <p>May float or sink in water.</p> <p>Restrict access.<br/>Avoid contact with liquid.<br/>Notify local health and pollution control agencies.<br/>Protect water intakes.</p> |   |              |                  |
| Fire   | <p>Combustible.<br/>POISONOUS GASES MAY BE PRODUCED IN FIRE.<br/>Wear goggles and self-contained breathing apparatus.<br/>Extinguish with dry chemicals, foam or carbon dioxide.<br/>Water may be ineffective on fire.</p>  |              |                  |
| Exposure   | <p>CALL FOR MEDICAL AID.</p> <p>LIQUID<br/>Irritating to skin and eyes.<br/>If swallowed will cause nausea or vomiting.<br/>Remove contaminated clothing and shoes.<br/>Flush affected areas with plenty of water.<br/>IF IN EYES, hold eyelids open and flush with plenty of water.<br/>IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk.<br/>IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.</p> |              |                  |
| Water Pollution  | <p>Effect of low concentrations on aquatic life is unknown.<br/>May be dangerous if it enters water intakes.<br/>Notify local health and wildlife officials.<br/>Notify operators of nearby water intakes.</p>  |              |                  |

| 1. CORRECTIVE RESPONSE ACTIONS        | 2. CHEMICAL DESIGNATIONS  | 3. HEALTH HAZARDS  |
|---------------------------------------|---|--|
| Dilute and disperse<br>Stop discharge | <p>2.1 CG Compatibility Group: Not listed.<br/>2.2 Formula: <math>C_6H_5CH_2N(CH_3)_3Cl \cdot H_2O</math><br/>2.3 IMO/UN Designation: Not listed<br/>2.4 DOT ID No.: Not listed<br/>2.5 CAS Registry No.: Currently not available<br/>2.6 NAERG Guide No.: Not listed<br/>2.7 Standard Industrial Trade Classification: 51129</p> | <p>3.1 Personal Protective Equipment: Goggles and rubber gloves<br/>3.2 Symptoms Following Exposure: Ingestion causes gastrointestinal disturbances. Contact with liquid irritates eyes and may irritate skin.<br/>3.3 Treatment of Exposure: INGESTION: give large amount of water; get medical attention. EYES: flush with water for at least 15 min.; if irritation continues, get medical attention. SKIN: flush well with water.<br/>3.4 TLV-TWA: Not listed.<br/>3.5 TLV-STEL: Not listed.<br/>3.6 TLV-Ceiling: Not listed.<br/>3.7 Toxicity by Ingestion: Grade 3; LD<sub>50</sub> = 50-500 mg/kg<br/>3.8 Toxicity by Inhalation: Currently not available.<br/>3.9 Chronic Toxicity: Currently not available<br/>3.10 Vapor (Gas) Irritant Characteristics: Currently not available<br/>3.11 Liquid or Solid Characteristics: Currently not available<br/>3.12 Odor Threshold: Currently not available<br/>3.13 IDLH Value: Not listed.<br/>3.14 OSHA PEL-TWA: Not listed.<br/>3.15 OSHA PEL-STEL: Not listed.<br/>3.16 OSHA PEL-Ceiling: Not listed.<br/>3.17 EPA AEGL: Not listed</p> |

| 4. FIRE HAZARDS  | 7. SHIPPING INFORMATION                                    |
|--|--|
| 4.1 Flash Point: Not pertinent   | 7.1 Grades of Purity: 50-60% solution in water             |
| 4.2 Flammable Limits in Air: Not pertinent   | 7.2 Storage Temperature: Ambient                           |
| 4.3 Fire Extinguishing Agents: Not pertinent   | 7.3 Inert Atmosphere: No requirement                       |
| 4.4 Fire Extinguishing Agents Not to Be Used: Water may be ineffective on fire.                                    | 7.4 Venting: Open  |
| 4.5 Special Hazards of Combustion Products: Toxic oxides of nitrogen and hydrochloric acid fumes may form in fire. | 7.5 IMO Pollution Category: Currently not available        |
| 4.6 Behavior in Fire: Currently not available  | 7.6 Ship Type: Currently not available                     |
| 4.7 Auto Ignition Temperature: Not pertinent   | 7.7 Barge Hull Type: Currently not available               |
| 8. HAZARD CLASSIFICATIONS  | 9. PHYSICAL & CHEMICAL PROPERTIES                          |
| 8.1 49 CFR Category: Not listed  | 9.1 Physical State at 15°C and 1 atm: Liquid               |
| 8.2 49 CFR Class: Not pertinent  | 9.2 Molecular Weight: 172 (solute)                         |
| 8.3 49 CFR Package Group: Not listed   | 9.3 Boiling Point at 1 atm: Not pertinent (decomposes)     |
| 8.4 Marine Pollutant: No   | 9.4 Freezing Point: Not pertinent                          |
| 8.5 NFPA Hazard Classification: Not listed   | 9.5 Critical Temperature: Not pertinent                    |
| 8.6 EPA Reportable Quantity: Not listed  | 9.6 Critical Pressure: Not pertinent                       |
| 8.7 EPA Pollution Category: Not listed   | 9.7 Specific Gravity: 1.07 at 20°C (liquid)                |
| 8.8 RCRA Waste Number: Not listed  | 9.8 Liquid Surface Tension: Currently not available        |
| 8.9 EPA FWPCA List: Not listed   | 9.9 Liquid Water Interfacial Tension: Not pertinent        |
| 5. CHEMICAL REACTIVITY   | 9.10 Vapor (Gas) Specific Gravity: Not pertinent           |
| 5.1 Reactivity with Water: No reaction   | 9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent |
| 5.2 Reactivity with Common Materials: Currently not available  | 9.12 Latent Heat of Vaporization: Not pertinent            |
| 5.3 Stability During Transport: Stable   | 9.13 Heat of Combustion: Not pertinent                     |
| 5.4 Neutralizing Agents for Acids and Caustics: Not pertinent  | 9.14 Heat of Decomposition: Not pertinent                  |
| 5.5 Polymerization: Not pertinent  | 9.15 Heat of Solution: Not pertinent                       |
| 5.6 Inhibitor of Polymerization: Not pertinent   | 9.16 Heat of Polymerization: Not pertinent                 |
| 6. WATER POLLUTION   | 9.17 Heat of Fusion: Currently not available               |
| 6.1 Aquatic Toxicity: Currently not available  | 9.18 Limiting Value: Currently not available               |
| 6.2 Waterfowl Toxicity: Currently not available  | 9.19 Reid Vapor Pressure: 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  |  |

## NOTES

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| 9.20<br>SATURATED LIQUID DENSITY |                       | 9.21<br>LIQUID HEAT CAPACITY |                                     | 9.22<br>LIQUID THERMAL CONDUCTIVITY |   | 9.23<br>LIQUID VISCOSITY   |             |
|----------------------------------|-----------------------|------------------------------|-------------------------------------|-------------------------------------|---|----------------------------|-------------|
| Temperature<br>(degrees F)       | Pounds per cubic foot | Temperature<br>(degrees F)   | British thermal unit per<br>pound-F | Temperature<br>(degrees F)          | British thermal unit inch<br>per hour-square foot-F | Temperature<br>(degrees F) | Centipoise  |
| 52                               | 67.349                |                              | N<br>O<br>T                         |                                     | N<br>O<br>T   |                            | N<br>O<br>T |
| 54                               | 67.280                |                              |                                     |                                     |   |                            |             |
| 56                               | 67.209                |                              |                                     |                                     |   |                            |             |
| 58                               | 67.139                |                              |                                     |                                     |   |                            |             |
| 60                               | 67.070                |                              |                                     |                                     |   |                            |             |
| 62                               | 67.000                |                              |                                     |                                     |   |                            |             |
| 64                               | 66.929                |                              |                                     |                                     |   |                            |             |
| 66                               | 66.860                |                              |                                     |                                     |   |                            |             |
| 68                               | 66.790                |                              |                                     |                                     |   |                            |             |
| 70                               | 66.719                |                              |                                     |                                     |   |                            |             |
| 72                               | 66.650                |                              |                                     |                                     |   |                            |             |
| 74                               | 66.580                |                              |                                     |                                     |   |                            |             |
| 76                               | 66.509                |                              |                                     |                                     |   |                            |             |
| 78                               | 66.440                |                              |                                     |                                     |   |                            |             |
| 80                               | 66.379                |                              |                                     |                                     |   |                            |             |
| 82                               | 66.309                |                              |                                     |                                     |   |                            |             |
| 84                               | 66.240                |                              |                                     |                                     |   |                            |             |
| 86                               | 66.169                |                              |                                     |                                     |   |                            |             |

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