## BISMUTH OXYCHLORIDE

### 1. CORRECTIVE RESPONSE ACTIONS

**Collection Systems:** Dredge

### 3. HEALTH HAZARDS

#### 3.1 Personal Protective Equipment
- Goggles or face shield
- Protective gloves
- Dust mask

#### 3.2 Symptoms Following Exposure
- Contact with dust causes mild eye irritation and can cause skin lesions.

#### 3.3 Treatment of Exposure
- **EYES:** flush with water.
- **SKIN:** wash with soap and water.
- **INHALED:** fresh air.
- **INGESTED:** do nothing except keep victim warm.

### 4. FIRE HAZARDS

#### 4.1 Flash Point
- Not flammable.

#### 4.2 Flammable Limits in Air
- Not flammable.

#### 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: Irritating hydrogen chloride gas may form in fire.

#### 4.6 Behavior in Fire
- Emits toxic fumes of chlorine ion and bismuth when heated to decomposition.

#### 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
- Not pertinent.

#### 4.12 Flame Temperature
- Currently not available.

#### 4.13 Combustion Molar Ratio
- Reactant to Product: Not pertinent.

#### 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 Alkalis
- Not pertinent.

#### 5.5 Polymerization
- Not pertinent.

#### 5.6 Inhibitor of Polymerization
- Not pertinent.

### 6. WATER POLLUTION

#### 6.1 Aquatic Toxicity
- Currently not available.

#### 6.2 Waterfowl Toxicity
- Currently not available.

#### 6.3 Biological Oxygen Demand (BOD): None

#### 6.4 Food Chain Concentration Potential
- Currently not available.

#### 6.5 GESAMP Hazard Profile
- Not listed

### 7. SHIPPING INFORMATION

#### 7.1 Grades of Purity
- Dry powder, 100% aqueous concentrates: dispersions of solid in mineral oil or castor oil.

#### 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 NTP 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
- 260.4.

#### 9.3 Boiling Point

#### 9.4 Freezing Point
- Not pertinent.

#### 9.5 Critical Temperature
- Not pertinent.

#### 9.6 Critical Pressure
- Not pertinent.

#### 9.7 Specific Gravity
- 7.7 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
- Not pertinent.

#### 9.16 Heat of Polymerization
- Not pertinent.

#### 9.17 Heat of Fusion
- Not pertinent.

#### 9.18 Limiting Values
- Currently not available.

#### 9.19 Reid Vapor Pressure
- Currently not available.

### NOTES

**JUNE 1999**
## BISMUTH OXYCHLORIDE

**Table:**

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<thead>
<tr>
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<td>LIQUID THERMAL CONDUCTIVITY</td>
<td>LIQUID VISCOSITY</td>
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<td><strong>Pounds per cubic foot</strong></td>
<td><strong>Temperature (degrees F)</strong></td>
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<td>SATURATED VAPOR PRESSURE</td>
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<td>IDEAL GAS HEAT CAPACITY</td>
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<tr>
<td><strong>Temperature (degrees F)</strong></td>
<td><strong>Pounds per 100 pounds of water</strong></td>
<td><strong>Temperature (degrees F)</strong></td>
<td><strong>Pounds per square inch</strong></td>
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