# Material Safety Data Sheet

Hexadecyltrimethylammonium bromide

## Section 1 - Chemical Product and Company Identification

**MSDS Name:** Hexadecyltrimethylammonium bromide
**Synonyms:** Cetrimide; Cetrimonium bromide; Palmityltrimethylammonium bromide; N,N,N-Trimethyl-1-hexadecanaminium bromide; Cetyltrimethylammonium bromide; Cationic detergent; Quaternary ammonium compound.; CTABr

## Section 2 - Composition, Information on Ingredients

| CAS# | Chemical Name | Percent | EINECS/ELINCS |
|---|---|---|---|
| 57-09-0 | Hexadecyltrimethylammonium bromide | >99 | 200-311-3 |

## Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: white crystalline powder.
May Causes eye, skin, and respiratory tract irritation. May cause allergic skin reaction. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May cause cardiac disturbances. May cause central nervous system effects. May cause reproductive and fetal effects.
**Target Organs:** Central nervous system, respiratory system, cardiovascular system, eyes, skin.
**Potential Health Effects**
**Eye:** Causes eye irritation. May result in corneal injury. Severe eye injury results from exposure to 15% solution. (Micromedex)
**Ingestion:** Harmful if swallowed. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns.
**Inhalation:** Causes respiratory tract irritation.

## Section 4 - First Aid Measures

**Eyes:** In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get medical aid immediately.
**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.
**Ingestion:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.
**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
**Extinguishing Media:** Use water spray, dry chemical, or carbon dioxide.
**Flash Point:** Not applicable.
**Autoignition Temperature:** 290 deg C ( 554.00 deg F)
**Explosion Limits, Lower:**Not available.
**Upper:** Not available.

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.
**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Carefully scoop up and place into appropriate disposal container. Provide ventilation. Do not let this chemical enter the environment.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Do not breathe dust. Do not get in eyes. Avoid contact with skin and clothing.
**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.
**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles

## Section 9 - Physical and Chemical Properties

**Physical State:** Crystalline powder
**Appearance:** white
**Odor:** weak odor
**pH:** 5 - 7 (10 g/l water (20°C))
**Vapor Pressure:** Negligible.
**Vapor Density:** Not available.
**Evaporation Rate:**Negligible.
**Viscosity:** Not available.
**Boiling Point:** Not available.
**Freezing/Melting Point:**250 deg C (dec)
**Decomposition Temperature:**> 210 deg C
**Solubility:** 13 g/l water (20°C)
**Specific Gravity/Density:**Not available.
**Molecular Formula:**C19H42BrN
**Molecular Weight:**364.45

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable. However, may decompose if heated. Hygroscopic: absorbs moisture or water from the air.
**Conditions to Avoid:** Dust generation, exposure to moist air or water.

## Section 11 - Toxicological Information

**RTECS#:**
**CAS#** 57-09-0: BQ7875000
**LD50/LC50:**
CAS# 57-09-0:

**Carcinogenicity:**
CAS# 57-09-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
**Epidemiology:** No information available.
**Teratogenicity:** Embryo or Fetus: Stunted fetus, ipr-mouse TDLo=35mg/kg. Specific Developmental Abnormalities: Craniofacial and Musculoskeletal, ipr-mouse TDLo=10500ug/kg.

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

## Section 14 - Transport Information

| | US DOT | |
|---|---|---|
| **Shipping Name:** | NO INFORMATION | |
| **Hazard Class:** | | |
| **UN Number:** | | |
| **Packing Group:** | | |

## Section 15 - Regulatory Information

No information

## Section 16 - Additional Information

**MSDS Creation Date:** 12/12/1999
**Revision #6 Date:** 8/07/2006

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