



GARDENA, CA
NEW BRUNSWICK, NJ

Material Safety Data Sheet

NFPA 	HMS <table border="1"> <tr> <td>Health Hazard</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0	Personal Protective Equipment See Section 15.
Health Hazard	2							
Fire Hazard	1							
Reactivity	0							

Section 1. Chemical Product and Company Identification Page Number: 1

Common Name/Trade Name Cetyltrimethylammonium bromide	CAS# 57-09-0
Manufacturer ProChem, Inc. 826 Roosevelt Rd Rockford, IL 61109	RTECS BQ7875000 TSCA TSCA 8(b) inventory: Cetyltrimethylammonium bromide
Commercial Name(s) Bromat, Acetoquat, Centimide, Cetarol, Cycloton V, Lauroseptol, Lissolamine, Micol, Pollacid, quamonium , Softex KW	CI# Not available.
Synonym N-Hexadecyl-N,N,N-trimethylammonium bromide; (1-Hexadecyl)trimethylammonium bromide; Hexadecyltrimethylammonium bromide; N,N,N-Trimethyl-1-hexadecanaminium bromide; Palmityltrimethylammonium bromide; Trimethylcetylammmonium bromide; Trimethylhexacecylammonium bromide; Cetrimonium Bromide CTAB	<div style="border: 2px solid black; padding: 5px;"> <p>IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300</p> <p style="font-size: 1.5em; margin-top: 20px;">815-398-1788</p> </div>
Chemical Name Ammonium, hexadecyltrimethyl-, bromide	
Chemical Family Not available.	
Chemical Formula C19H42BrN	
Supplier	

Section 2. Composition and Information on Ingredients

Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Cetyltrimethylammonium bromide	57-09-0				100

Toxicological Data on Ingredients	Cetyltrimethylammonium bromide: ORAL (LD50): Acute: 410 mg/kg [Rat].
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Section 3. Hazards Identification

Potential Acute Health Effects Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects **CARCINOGENIC EFFECTS:** Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
 The substance may be toxic to liver, cardiovascular system, central nervous system (CNS).
 Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation Not available.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion Not available.

Section 5. Fire and Explosion Data

Flammability of the Product May be combustible at high temperature.

Auto-Ignition Temperature Not available.

Flash Points CLOSED CUP: >93.333°C (200°F). OPEN CUP: 244°C (471.2°F).

Flammable Limits Not available.

Products of Combustion These products are carbon oxides (CO, CO₂), halogenated compounds.

Fire Hazards in Presence of Various Substances Slightly flammable to flammable in presence of heat.
Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances Slightly explosive in presence of open flames and sparks.
Non-explosive in presence of shocks.

Fire Fighting Media and Instructions SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards As with most organic solids, fire is possible at elevated temperatures

Special Remarks on Explosion Hazards Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (Powdered solid.)	Odor	Ammoniacal. (Slight.)
Molecular Weight	364.48 g/mole	Taste	Not available.
pH (1% soln/water)	5 - 7.5	Color	White.
Boiling Point	Not available.		
Melting Point	250°C (482°F)		
Critical Temperature	Not available.		
Specific Gravity	Not available.		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water.		
Solubility	Partially soluble in cold water. Solubility in water: 10%		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat, incompatible materials, dust generation
Incompatibility with various substances	Reactive with oxidizing agents.
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Not available.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 410 mg/kg [Rat].
Chronic Effects on Humans	May cause damage to the following organs: liver, cardiovascular system, central nervous system (CNS).
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects and birth defects (teratogenic) based on animal test data
Special Remarks on other Toxic Effects on Humans	<p>Acute Potential Health Effects:</p> <p>Skin: Causes severe skin irritation.</p> <p>Eyes: Causes severe irritation. May result in corneal injury.</p> <p>Inhalation: Causes respiratory tract irritation. Inhalation of large amounts may also affect behavior/central nervous system, and cardiovascular system with symptoms similar to that of ingestion.</p> <p>Ingestion: Harmful if swallowed. May cause severe gastrointestinal tract irritation with nausea, vomiting, constipation. Ingestion of large amounts may also affect respiration (respiratory depression), behavior/central nervous system (convulsions, ataxia, tremor, psychosis, fatigue, confusion, blurred vision, apathy, slurred speech, lethargy, headache, irritability), cardiovascular system (tachycardia, hypotension), and the liver.</p> <p>Chronic Potential Health Effects:</p> <p>Skin: Prolonged or repeated skin contact may cause sensitization dermatitis.</p> <p>Ingestion: Prolonged or repeated ingestion may affect the liver, metabolism (anorexia or weight loss), cardiovascular system, behavior/central nervous system, and may cause musculoskeletal effects (muscle weakness, muscle pain)</p>

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are as toxic as the product itself.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal Waste must be disposed of in accordance with federal, state and local environmental control regulations.

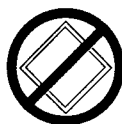
Section 14. Transport Information

DOT Classification Not a DOT controlled material (United States).

Identification Not applicable.

Special Provisions for Transport Not applicable.

DOT (Pictograms)



Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations TSCA 8(b) inventory: Cetyltrimethylammonium bromide

California Proposition 65 Warnings
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations
 OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
 EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications

WHMIS (Canada)	CLASS D-2B: Material causing other toxic effects (TOXIC).	
DSCL (EEC)	R22- Harmful if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. R50- Very toxic to aquatic organisms.	S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of water. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	1
Reactivity	0
Personal Protection	E

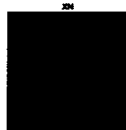
National Fire Protection Association (U.S.A.)

Health		Flammability
		Reactivity
		Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



**TDG (Canada)
(Pictograms)**



**ADR (Europe)
(Pictograms)**



Protective Equipment



Gloves.



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16. Other Information

References Not available.

Other Special Considerations Not available.

PREPARED JUNE 2006

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, ProChem Chemicals Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.