



G-Biosciences, St Louis, MO, USA ♦ 1-800-628-7730 ♦ 1-314-991-6034 ♦ [technical@GBiosciences.com](mailto:technical@GBiosciences.com)

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A Geno Technology, Inc. (USA) brand name

# Safety Data Sheet

## CTAB (Cetyltrimethylammonium bromide)

Cat. # DG094



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# CTAB (Hexadecyltrimethylammonium bromide)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Date of issue: 5/18/2016 Revision date: 1/17/2025 Supersedes: 1/14/2025 Version: 10.0

### SECTION 1 Identification

#### 1.1. Product identifier

Product form : Substance  
Substance name : CTAB (Hexadecyltrimethylammonium bromide)  
IUPAC name : cetrimonium bromide  
CAS-No. : 57-09-0  
Product code : 283C  
Formula : C<sub>19</sub>H<sub>42</sub>BrN  
BIG No : 25428

#### 1.2. Other means of identification

Synonyms : (1-hexadecyl)trimethylammonium bromide / 1-hexadecanaminium, N,N,N-trimethyl-, bromide / acetoquat CTAB / ammonium, hexadecyltrimethyl-, bromide / bromat / CEE DEE / centimide / cetarol / cetrimonium bromide / cetyl trimethylammonium bromide / cetylamine / cetyltrimethylammonium bromide / cirrasol-OD / CTAB / CTABr / ctmb / cycloton V / hexadecyltrimethylammonium bromide / hexadecyltrimethylazanium bromide / LAUROSEPTOL / lissolamine / lissolamine A / lissolamine V / micol / N,N,N-trimethyl-1-hexadecanaminium bromide / N,N,N-trimethylhexadecan-1-aminium bromide / N,N,N-trimethyltetradecylammonium bromide / N-cetyl-N,N,N-trimethylammonium bromide / N-cetyltrimethylammonium bromide / N-hexadecyl trimethylammonium bromide / N-hexadecyl-N,N,N-trimethylammonium bromide / palmityltrimethylammonium bromide / pollacid / quamonium / SOFTEX KW / sutcide / trimethylcetylammonium bromide / trimethylhexadecylammonium bromide

EC-No. : 200-311-3

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Biocide, Cationic surfactant

#### 1.4. Supplier's details

G-Biosciences/ Geno Technology, Inc.  
9800 Page Avenue  
St. Louis, MO 63132-1429, USA  
Tel. 1-800-628-7730  
[www.GBiosciences.com](http://www.GBiosciences.com)

#### 1.5. Emergency phone number

Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

### SECTION 2 Hazard Identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation.
Specific target organ toxicity — Repeated exposure, Category 1	H372	Causes damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410	Very toxic to aquatic life with long lasting effects.

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Full text of H statements : see section 16

### 2.2. Label elements

#### GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H335 - May cause respiratory irritation  
H372 - Causes damage to organs through prolonged or repeated exposure  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS US)

: P260 - Do not breathe dust, fume, gas, mist, vapors, spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves.  
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.  
P302+P352 - If on skin: Wash with plenty of water.  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a poison center or doctor.  
P312 - Call a poison center or doctor if you feel unwell.  
P314 - Get medical advice or attention if you feel unwell.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P330 - Rinse mouth.  
P332+P313 - If skin irritation occurs: Get medical advice or attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P391 - Collect spillage.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity

No additional information available

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Substance type

: Mono-constituent

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Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
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CTAB (Hexadecyltrimethylammonium bromide)	(1-hexadecyl)trimethylammonium bromide / 1-hexadecanaminium, N,N,N-trimethyl-, bromide / acetoquat CTAB / ammonium, hexadecyltrimethyl-, bromide / bromat / CEE DEE / centimide / cetarol / cetrimonium bromide / cetyltrimethylammonium bromide / cetylamine / cetyltrimethylammonium bromide / cirrasol-OD / CTAB / CTABr / ctmb / cycloton V / hexadecyltrimethylammonium bromide / hexadecyltrimethylazanium bromide / LAUROSEPTOL / lissolamine / lissolamine A / lissolamine V / micol / N,N,N-trimethyl-1-hexadecanaminium bromide / N,N,N-trimethylhexadecan-1-aminium bromide / N,N,N-trimethyltetradecylammonium bromide / N-cetyl-N,N,N-trimethylammonium bromide / N-cetyltrimethylammonium bromide / N-hexadecyltrimethylammonium bromide / N-hexadecyl-N,N,N-trimethylammonium bromide /	CAS-No.: 57-09-0		Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
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Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
	palmityltrimethylammonium bromide / pollacid / quamonium / SOFTEX KW / sutcide / trimethylcetylamm onium bromide / trimethylhexadecylammonium bromide			

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4 First aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Wash immediately with lots of water. Do not apply (chemical) neutralizing agents without medical advice. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice. Take victim to an ophthalmologist.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not apply (chemical) neutralizing agents without medical advice. Call Poison Information Centre ( <a href="http://www.big.be/antigif.html">www.big.be/antigif.html</a> ). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital.
Self protection of the first-aider	: First aid workers will be equipped with suitable personal protective equipment.

### 4.2. Most important symptoms/effects, acute and delayed

Potential Adverse human health effects and symptoms	: Harmful if swallowed. Causes skin irritation. Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). May cause respiratory irritation. Causes serious eye damage.
Symptoms/effects	: Causes damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	: AFTER INHALATION OF DUST/MIST: Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes.
Symptoms/effects after skin contact	: Tingling/irritation of the skin.
Symptoms/effects after eye contact	: Corrosion of the eye tissue. Lacrimation. Visual disturbances. ON CONTINUOUS EXPOSURE/CONTACT: Inflammation/damage of the eye tissue.
Symptoms/effects after ingestion	: No effects known.
Symptoms/effects upon intravenous administration	: No effects known.
Chronic symptoms	: Gastrointestinal complaints.

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### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.

Unsuitable extinguishing media : Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.

### 5.2. Specific hazards arising from the chemical

Fire hazard : DIRECT FIRE HAZARD: Not classified as flammable. In finely divided state: increased fire hazard. INDIRECT FIRE HAZARD: Heating increases the fire hazard.

Explosion hazard : DIRECT EXPLOSION HAZARD: May form explosible dust-air mixture if dispersed. INDIRECT EXPLOSION HAZARD: Dust cloud can be ignited by a spark.

Hazardous decomposition products in case of fire : On heating/burning: release of toxic and corrosive gases/vapours (ammonia, nitrous vapours, hydrogen bromide, carbon monoxide - carbon dioxide).

### 5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.

Firefighting instructions : Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

Protection during firefighting : Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

## SECTION 6 Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

#### For non-emergency personnel

Protective equipment : Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Dust cloud production: self-contained breathing apparatus (EN 136 + EN 137). Dust cloud production: dust-tight suit (EN 13982).

Emergency procedures : Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes.

Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

#### For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area. Evacuate unnecessary personnel.

Environmental precautions : Prevent soil and water pollution. Prevent spreading in sewers.

### 6.2. Methods and materials for containment and cleaning up

For containment : Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray. Provide equipment/receptacles with earthing. Powdered form: no compressed air for pumping over spills.

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Methods for cleaning up	: Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. Powdered: do not use compressed air for pumping over spills. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.
Other information	: Dispose of materials or solid residues at an authorized site.

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

## SECTION 7 Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Avoid raising dust. Keep away from naked flames/heat. Take precautions against electrostatic charges. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Powdered form: no compressed air for pumping over. Keep container tightly closed.
Hygiene measures	: Observe strict hygiene.
Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.

### 7.2. Conditions for safe storage, including incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Keep cool. Keep only in the original container in a cool, well ventilated place away from : Keep container tightly closed. Store locked up. Store in a well-ventilated place.
Storage area	: Store in a dry area. Provide the tank with earthing. Store at room temperature. Meet the legal requirements.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight.
Information on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents. water/moisture.
Heat-ignition	: KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
Special rules on packaging	: SPECIAL REQUIREMENTS: closing. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	: SUITABLE MATERIAL: cardboard. synthetic material. glass.

## SECTION 8 Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

### 8.3. Individual protection measures, such as personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Materials for protective clothing:

Excellent resistance: Nitrile rubber

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<b>Hand protection:</b>
Protective gloves against chemicals (EN 374)
<b>Eye protection:</b>
Face shield (EN 166). In case of dust production: protective goggles (EN 166)
<b>Skin and body protection:</b>
Protective clothing (EN 14605 or EN 13034). In case of dust production: head/neck protection. In case of dust production: dustproof clothing (EN 13982)
<b>Respiratory protection:</b>
Dust production: dust mask with filter type P2

### Personal protective equipment symbol(s):



### Other information:

Do not eat, drink or smoke during use.

## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Crystalline powder.
Color	: White
Odor	: Odourless
Odor threshold	: No data available
pH	: No data available in the literature
Melting point	: 237 – 243 °C
Freezing point	: Not applicable
Boiling point	: Not applicable (decomposes)
Flash point	: Not applicable (solid)
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: < 0.01 hPa (25 °C)
Relative vapor density at 20°C	: Not applicable (solid)
Relative density	: 0.5 (20 °C)
Density	: 500 kg/m <sup>3</sup> (20 °C)
Molecular mass	: 364.46 g/mol
Solubility	: Moderately soluble in water. Water: 5.5 g/100ml (20 °C)
Partition coefficient n-octanol/water (Log Pow)	: 3.18 (Calculated, KOWWIN, 25 °C)
Auto-ignition temperature	: 210 °C (300 hPa, T3)
Decomposition temperature	: > 235 °C
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable (solid)
Explosion limits	: Not applicable
Particle characteristics	: Particle size : 34.5 — 96.8 µm (D50)

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

VOC content	: 0 %
Other properties	: Hygroscopic. May generate electrostatic charges.

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### SECTION 10 Stability and reactivity

#### 10.1. Reactivity

Reacts violently with (strong) oxidizers.

#### 10.2. Chemical stability

Hygroscopic.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

Hazardous decomposition products. fume. Carbon monoxide. Carbon dioxide.

### SECTION 11 Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)	
LD50 oral rat	465 – 891 mg/kg (OECD 401: Acute Oral Toxicity, 14 day(s), Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rabbit	2150 mg/kg body weight (Other, 24 h, Rabbit, Male / female, Read-across, Skin, 14 day(s))
ATE US (oral)	465 mg/kg body weight
ATE US (dermal)	2150 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.  
pH: No data available in the literature

CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)	
pH	No data available in the literature

Serious eye damage/irritation : Causes serious eye damage.  
pH: No data available in the literature

CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)	
pH	No data available in the literature

Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : May cause respiratory irritation.

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### CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

### CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)

LOAEL (dermal,rat/rabbit,90 days) : 10 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

NOAEL (oral,rat,90 days) : 10 mg/kg body weight Animal: rat

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

### CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)

Viscosity, kinematic : Not applicable

### CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)

Viscosity, kinematic : Not applicable

Potential Adverse human health effects and symptoms : Harmful if swallowed. Causes skin irritation. Practically non-toxic in contact with skin (LD50 skin > 2000 mg/kg). May cause respiratory irritation. Causes serious eye damage.

Symptoms/effects : Causes damage to organs through prolonged or repeated exposure.

Symptoms/effects after inhalation : AFTER INHALATION OF DUST/MIST: Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes.

Symptoms/effects after skin contact : Tingling/irritation of the skin.

Symptoms/effects after eye contact : Corrosion of the eye tissue. Lacrimation. Visual disturbances. ON CONTINUOUS EXPOSURE/CONTACT: Inflammation/damage of the eye tissue.

Symptoms/effects after ingestion : No effects known.

Symptoms/effects upon intravenous administration : No effects known.

Chronic symptoms : Gastrointestinal complaints.

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

Ecology - general : Dangerous for the environment.

Ecology - air : Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 2024/573). Not classified as dangerous for the ozone layer (Regulation (EC) No 2024/590).

Ecology - water : Very toxic to crustacea. Toxic to crustacea with long lasting effects. Very toxic to fishes. Toxic to fish, with long lasting effects. Nitrification of activated sludge is inhibited. Inhibition of activated sludge. Very toxic to algae. Very toxic to algae, with long lasting effects.

Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

### CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)

LC50 - Fish [1] : 0.2 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)

EC50 - Crustacea [1] : 26 µg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, GLP)

EC50 72h - Algae [1] : 4.11 µg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

NOEC (chronic) : 0.023 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

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### 12.2. Persistence and degradability

#### CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)

Persistence and degradability	Rapidly degradable
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#### CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)

Persistence and degradability	Readily biodegradable in water.
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### 12.3. Bioaccumulative potential

#### CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)

BCF - Fish [1]	407 – 741 (8 week(s), Cyprinus carpio, Experimental value)
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Partition coefficient n-octanol/water (Log Pow)	3.18 (Calculated, KOWWIN, 25 °C)
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Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ).
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### 12.4. Mobility in soil

#### CTAB (Hexadecyltrimethylammonium bromide) (57-09-0)

Surface tension	39 mN/m (25 °C, 0.8 mmol/l, Wilhelmy plate method: surface tension)
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Organic Carbon Normalized Adsorption Coefficient (Log Koc)	4.49 (log Koc)
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Ecology - soil	Low potential for mobility in soil.
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### 12.5. Other adverse effects

Ozone : Not classified  
Fluorinated greenhouse gases : No  
Other information : Avoid release to the environment.

## SECTION 13 Disposal considerations

Regional legislation (waste) : Disposal must be done according to official regulations.  
Waste treatment methods : Waste treatment methods.  
Sewage disposal recommendations : Disposal must be done according to official regulations.  
Product/Packaging disposal recommendations : Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.  
Additional information : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.  
Ecological waste information : Avoid release to the environment.

## SECTION 14 Transport information

In accordance with DOT / TDG / IATA

### 14.1. UN number

Not regulated for transport

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### 14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not regulated  
Proper Shipping Name (TDG) : Not regulated  
Proper Shipping Name (IATA) : Not regulated

### 14.3. Transport hazard class(es)

**DOT**  
Transport hazard class(es) (DOT) : Not regulated

**TDG**  
Transport hazard class(es) (TDG) : Not regulated

**IATA**  
Transport hazard class(es) (IATA) : Not regulated

### 14.4. Packing group

Packing group (DOT) : Not regulated  
Packing group (TDG) : Not regulated  
Packing group (IATA) : Not regulated

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Transport in bulk

Not applicable

### 14.7. Special precautions for user

**DOT**  
Not regulated

**TDG**  
Not regulated

**IATA**  
Not regulated

## SECTION 15 Regulatory information

### 15.1. Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
CTAB (Hexadecyltrimethylammonium bromide)	57-09-0	Not present	-	

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

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### 15.3. State regulations

No additional information available

### SECTION 16 Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 1/17/2025  
Date of issue : 5/18/2016  
Other information : None.

Full text of hazard classes and H-statements	
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Abbreviations and acronyms	
ACGIH	American Conference of Government Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association

# CTAB (Hexadecyltrimethylammonium bromide)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Abbreviations and acronyms	
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety & Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

NFPA health hazard

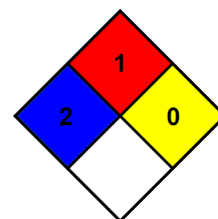
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.