

CTAB

SECTION 1: PRODUCT IDENTIFICATION

Product Name: CTAB
Product Code: TMB 029
CAS#: 57-09-0
Synonym: Hexadecyltrimethylammonium bromide.
Chemical Name: Cetyltrimethylammonium bromide
Chemical Formula: C₁₉H₄₂N.Br
Formula Weight: 364.45

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Composition:

Name: Cetyltrimethylammonium bromide
Toxicological Data on Ingredients: Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; STOT SE 3; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H302, H315, H318, H335, H373, H400, H410
M-Factor - Aquatic Acute: 100 - Aquatic Chronic: 10

SECTION 3: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
Skin irritation (Category 2), H315
Serious eye damage (Category 1), H318
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
Specific target organ toxicity - repeated exposure, Oral (Category 2), Gastrointestinal tract, H373

Potential Acute Health Effects:

Acute toxicity, Oral (Category 4), H302
Short-term (acute) aquatic hazard (Category 1), H400

Potential Chronic Health Effects:

Long-term (chronic) aquatic hazard (Category 1), H410

Carcinogenic Effects: Not available.

Mutagenic Effects: Not available.

Teratogenic Effects: Not available.

Developmental Toxicity: Not Available

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. Get medical attention.

Skin Contact: Wash off immediately with soap and plenty of water. Cover the irritated skin with emollient. Immediate medical attention is required.

Serious Skin Contact: Not available.

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. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.



SECTION 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Water Foam
Carbon dioxide (CO₂) Dry powder

Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NO_x)

Hydrogen bromide gas

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.

Storage conditions:

Tightly closed. Dry.

Storage class:

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Respiratory protection

Respiratory protection is not required. If protection from nuisance levels of dusts are desired, use type N95 or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance : Solid



Odor	:	Not available
Color	:	White
Molecular Weight	:	Not available
pH	:	Not available
Boiling Point	:	Not available
Melting Point	:	Not available
Critical Temperature	:	Not available
Specific Gravity	:	Not available
Vapor Pressure	:	Not available
Vapor Density	:	Not available
Volatility	:	Not available
Odor Threshold	:	Not available
Water/Oil Dist. Coeff.	:	Not available
Ionicity (in Water)	:	Not available
Dispersion Properties	:	Not available
Solubility	:	Not available

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: The product is chemically stable under standard ambient conditions (room temperature).

Instability Temperature: Not available

Conditions of Instability: Strong heating..

Incompatibility with various substances: Not available

Special Remarks on Corrosivity: Non corrosive.

Special Remarks on Reactivity: Not available

Possibility of hazardous reactions: Violent reactions possible with: Strong oxidizing agents

Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines!

Hazardous decomposition products: In case of fire.

SECTION 11: TOXICOLOGICAL INFORMATION.

Acute Toxicity: No data available

Inhalation: No data available

Dermal: No data available

Routes of Entry: Inhalation, Ingestion

Toxicity to Animals:

LD50 Oral - Rat - female - 1.550 mg/kg

LD50 Dermal - Rabbit - male and female - 2.150 mg/kg

Chronic Effects on Humans: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Other Toxic Effects on Humans: Vomiting, Diarrhoea, Damage to tooth enamel., Dermatitis

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Special Remarks on Toxicity to Animals: Not available

Special Remarks on other Toxic Effects on Humans Inhalation - May cause respiratory irritation. - Respiratory system

Potential Health Effects: Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish) - 0,2 mg/l - 96 h

Toxicity to daphnia semi-static test EC50 - Daphnia magna (Water flea) - 0,037 mg/l - 48 h

and other aquatic



invertebrates

Toxicity to algae

Toxicity to bacteria

static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 0,00411 mg/l - 72h

EC50 - activated sludge - 19 mg/l

BOD and COD:

Not available

Products of Biodegradation: Not available

Toxicity of the Products of Biodegradation:

Biodegradability

aerobic Chemical oxygen demand - Exposure time 11 d

Result: 100 % - Readily biodegradable..

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

UN number:

ADR/RID: 3077

IMDG: 3077

IATA: 3077

UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CTAB)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CTAB)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CTAB)

Transport hazard class(es):

ADR/RID: 9

IMDG: 9

IATA: 9

Packaging group:

ADR/RID: III

IMDG: III

IATA: III

Environmental hazards:

ADR/RID: Yes

IMDG Marine pollutant: Yes

IATA: Yes

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1 ENVIRONMENTAL HAZARDS

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure if swallowed.



H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Other Special Considerations: Not available

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user's obligation to investigate and determine the suitability of the information for their particular purpose.