

## CTAB (N-Cetyl-N, N, N-Trimethylammonium Bromide)

### SECTION 1: PRODUCT IDENTIFICATION

**Product Name:** CTAB (N-Cetyl-N,N,N-Trimethylammonium Bromide)

**Product Code:** TMB 029

**CAS#:** 57-09-0

**Chemical Formula:**  $\text{CH}_3(\text{CH}_2)_{15}\text{N}(\text{Br})(\text{CH}_3)_3$

**Molecular Formula:** 364.45 g/mol

**Formula Weight:** NA

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

**Substances Synonyms:** Cetrimonium bromide Palmityltrimethylammonium bromide CTAB Cetyltrimethylammonium bromide

**Formula:**  $\text{CH}_3(\text{CH}_2)_{15}\text{N}(\text{Br})(\text{CH}_3)_3$

**Molecular Weight:** 364.45 g/mol

**CAS-No.:** 57-09-0

### SECTION 3: HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

Acute toxicity, (Category 4) H302: Harmful if swallowed.

Skin irritation, (Category 2) H315: Causes skin irritation.

Serious eye damage, (Category 1) H318: Causes serious eye damage.

Specific target organ toxicity - single exposure, (Category 3), H335: May cause respiratory irritation.

Specific target organ toxicity - repeated exposure, (Category 2), Gastrointestinal tract H373: May cause damage to organs through prolonged or repeated exposure if swallowed.

Short-term (acute) aquatic hazard, (Category 1) H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, (Category 1) H410: Very toxic to aquatic life with long lasting effects.

#### Other hazards:

This substance/mixture contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

**Ecological information:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**Toxicological information:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### SECTION 4: FIRST AID MEASURES

#### Description of first aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

**Eye Contact:** Flush eyes with water as a precaution.

**Skin Contact:** Wash off with soap and plenty of water. Consult a physician.

**Serious Skin Contact:** Not available

**Serious Inhalation:** Move person into fresh air. If not breathing, give artificial respiration. Consult a physician

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Serious Ingestion:** Not available

**Most important symptoms and effects, both acute and delay** No data available



Indication of any immediate medical attention and special treatment needed no data available

## SECTION 5: FIRE AND EXPLOSION DATA

### Extinguishing media

**Suitable extinguishing media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture** no data available

**Advice for firefighters** Wear self-contained breathing apparatus for firefighting if necessary.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures** Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers.

## SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage, including any incompatibilities** Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

**Specific end use(s)** A part from the uses no other specific uses are stipulated.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure controls

#### Personal protective equipment

**Appropriate engineering controls** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Eye/face protection** Safety glasses with side-shields conforming to EN166 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. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state and appearance</b>	Form	: White colour powder.
<b>Odour</b>		: Not available
<b>Taste</b>		: Not available
<b>Molecular Weight</b>		: Not available
<b>Colour</b>		: Not available
<b>pH</b>		: Not available
<b>Boiling Point</b>		: Not available
<b>Melting Point</b>		: Not available
<b>Critical Temperature</b>		: Not available
<b>Specific Density</b>		: 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

**Reactivity** no data available

**Chemical stability** Stable under recommended storage conditions.

**Possibility of hazardous reactions** no data available

**Conditions to avoid** no data available

**Incompatible materials** Strong oxidizing agents

**Hazardous decomposition products** no data available

**Other decomposition products** no data available

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Acute toxicity:

LD50 Oral - Rat - female - 1.550 mg/kg (OECD Test Guideline 401)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Hexadecyltrimethylammonium chloride

Acute toxicity estimate Oral - 1.550 mg/kg (ATE value derived from LD50/LC50 value)

Inhalation: No data available

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

Remarks: (in analogy to similar products) (ECHA)

The value is given in analogy to the following substances: Hexadecyltrimethylammonium chloride

#### Skin corrosion/irritation:

Skin - Rabbit

Result: Irritating to skin. - 24 h

Remarks: (ECHA)

#### Serious eye damage/eye irritation:

Eyes - Rabbit

Result: Causes serious eye damage. (OECD Test Guideline 405)

Remarks: (in analogy to similar products)

#### Respiratory or skin sensitization:

Maximization Test - Guinea pig

Result: negative (OECD Test Guideline 406)

Remarks: Aqueous solution

**Carcinogenicity:** no data available

**Reproductive toxicity:** no data available

**Specific target organ toxicity:** Inhalation - May cause respiratory irritation. - Respiratory system

## SECTION 12: ECOLOGICAL INFORMATION

**Toxicity** no data available

**Persistence and degradability** no data available

**Bio-accumulative potential** no data available



**Mobility** in soil no data available

**Results of PBT and vPvB assessment** PBT/vPvB assessment not data available

**Other adverse effects** no data 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:**

**IMDG:**

**IATA:**

**UN proper shipping name**

**ADR/RID:** Not dangerous goods

**IMDG:** Not dangerous goods

**IATA:** Not dangerous goods

**Transport hazard class(es):**

**ADR/RID:**

**IMDG:**

**IATA:**

**Packaging group:**

**ADR/RID:**

**IMDG:**

**IATA:**

**Environmental hazards:**

**ADR/RID:** no

**IMDG Marine pollutant:** no

**IATA:** no

### SECTION 15: OTHER REGULATORY INFORMATION

**Regulatory information** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**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.

**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.

LD50 Oral - Rat - female - 1.550 mg/kg

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



**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.