

1. IDENTIFICATION

Product Name Cetrimide

Other Names Cetrimide BP; Myristyl trimethyl ammonium bromide [CAS#1119-97-7]; Tetradecyl trimethyl ammonium bromide;

Tetradonium bromide

Uses Antiseptic; Pharmaceutical applications.

Chemical Family No Data Available **Chemical Formula** C17H38N.Br

Chemical Name 1-Tetradecanaminium, N,N,N-trimethyl-, bromide

Product Description No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation Location Telephone Redox Ltd 2 Swettenham Road +61-2-97333000 Minto NSW 2566

Australia

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> Wiri Auckland 2104 New Zealand

Redox Inc. 3960 Paramount Boulevard +1-424-675-3200

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Seksyen 33, Shah Alam Premier Industrial Park

40400 Shah Alam Sengalor, Malaysia

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation Location Telephone Poisons Information Centre Westmead NSW 1800-251525 131126 Chemcall Australia 1800-127406 +64-4-9179888 Chemcall Malaysia +64-4-9179888 Chemcall New Zealand 0800-243622 +64-4-9179888 **National Poisons Centre** New Zealand 0800-764766

CHEMTREC USA & Canada 1-800-424-9300 CN723420

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2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled



Globally Harmonised System

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of

Chemicals (GHS)

Hazard Categories Acute Toxicity (Oral) - Category 4

> Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Irritation - Category 1

Specific Target Organ Toxicity (Single Exposure) - Category 3 Specific Target Organ Toxicity (Repeated Exposure) - Category 2

Acute Hazard To The Aquatic Environment - Category 1

Pictograms









Signal Word	Danger
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Hazard 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.

H400 Very toxic to aquatic life.

Precautionary Statements Prevention P280 Wear protective gloves/eye protection/face protection.

> P260 Do not breathe dusts or mists. P273 Avoid release to the environment.

P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area.

Response P305 + P351 + P338 +

P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing. Immediately call a POISON

CENTRE/doctor.

P302 + P352 IF ON SKIN: Wash with plenty of water and soap. Call a POISON CENTER or doctor if you feel unwell. P312

P391 Collect spillage. **P330** Rinse mouth.

P332 + P313 If skin irritation occurs: Get medical attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P304 + P340 IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

P403 + P233 Storage Store in a well-ventilated place. Keep container tightly closed.

> P405 Store locked up.

P501 Dispose of contents/container in accordance with local / regional / national / Disposal

international regulations.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods

by Road & Rail (ADG Code)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications Health Hazards **6.1D** Substances that are acutely toxic - Harmful

6.1E Substances that are acutely toxic –May be harmful, Aspiration hazard

6.3A Substances that are irritating to the skin

6.9B Substances that are harmful to human target organs or systems

8.3A Substances that are corrosive to ocular tissue

Environmental **9.1A** Substances that are very ecotoxic in the aquatic environment

Hazards

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Cetrimide	C17H38BrN	8044-71-1	>=96 - 100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting. Call a Poison Centre or

doctor/physician for advice. Never give anything by mouth to an unconscious person.

Eye IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting

the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes.

Immediately call a Poison Centre or doctor/physician for advice - Can cause corneal burns!

Skin IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation

occurs, get medical advice/attention.

Inhaled IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or

doctor/physician for advice. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

Advice to Doctor Get medical advice/attention if you feel unwell. Treat symptomatically. Show this safety data sheet (SDS) to the doctor in

attendance. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect

themselves.

Medical Conditions Aggravated by May cause an allergic skin reaction in sensitive individuals.

Exposure

5. FIRE FIGHTING MEASURES

General Measures Move containers from fire area if you can do it without risk. Cool containers with water spray until well after fire is out.

Dike fire-control water for later disposal.

Flammability Conditions Combustible solid. May support combustion if exposed to fire.

pressure water streams.

Development of hazardous combustion gases or vapours possible in the event of fire. Fire and Explosion Hazard

Hazardous Products of

Fire or heat will produce irritating, corrosive and/or toxic gases, including Carbon oxides, Nitrogen oxides and Hydrogen

Combustion

bromide.

Contain runoff from fire control or dilution water - Runoff may cause pollution.

Special Fire Fighting Instructions

Personal Protective Equipment Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only

provide limited protection.

Flash Point No Data Available **Lower Explosion Limit** No Data Available No Data Available **Upper Explosion Limit**

Auto Ignition Temperature

210 °C

Hazchem Code

No Data Available

6. ACCIDENTAL RELEASE MEASURES

Ensure adequate ventilation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames). Do not touch or walk **General Response Procedure**

through spilled material. Avoid generating dust. Do not breathe dust and avoid contact with eyes, skin and clothing.

Clean Up Procedures Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal

(see SECTION 13).

Containment Stop leak if you can do it without risk. Prevent dust cloud. Prevent entry into waterways, sewers, basements or confined

areas. Cover powder spill with plastic sheet or tarp to minimise spreading.

Decontamination No information available.

Environmental Precautionary

Measures

Spillages and decontamination runoff should be prevented from entering drains and watercourses.

Evacuation Criteria Spill or leak area should be isolated immediately. Evacuate personnel to safe areas. Keep unauthorised/unprotected

personnel away.

7. HANDLING AND STORAGE

Handling Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

> adequate ventilation - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Minimise dust generation and accumulation. Do not breathe dust and avoid contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Avoid release to the

environment - Collect spillage (see SECTION 6).

Store in a cool, dry and well ventilated place, out of direct sunlight. Keep container tightly closed when not in use. Keep Storage

away from heat and sources of ignition - No smoking. Hygroscopic - Protect from moisture. Keep away from incompatible

materials (see SECTION 10). Store locked up.

Container Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General No specific exposure standards are available for this product.

Exposure Limits No Data Available **Biological Limits** No information available.

Engineering Measures A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust

ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing

dispersion of it into the general work area.

Personal Protection Equipment

- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Dust mask/particulate respirator (refer to AS/NZS 1715 & 1716).
- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical safety goggles.
- Hand protection: Wear protective gloves. Recommended: Impervious/chemical-resistant gloves, e.g. Neoprene.
- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Long sleeved

clothing/overalls, safety shoes.

No information available.

Special Hazards Precaustions

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Take off contaminated clothing and wash it before reuse. Routine housekeeping should be instituted to ensure that

dusts do not accumulate on surfaces.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid

Appearance Free-flowing powder

Odour Odourless

Colour White or creamy-white

pH 4.5 - 6.5 (10% aqueous solution)

Vapour PressureNo Data AvailableRelative Vapour DensityNo Data AvailableBoiling PointDecomposes

Melting Point 260 - 264 °C (with decomposition)

Freezing Point No Data Available

Solubility Freely soluble in water, alcohol, ethanol (95%) and chloroform - Practically insoluble in ether

Specific Gravity No Data Available
Flash Point No Data Available

Auto Ignition Temp 210 °C

Evaporation Rate No Data Available 0.35 - 0.55 gm/ml **Bulk Density Corrosion Rate** No Data Available **Decomposition Temperature** No Data Available No Data Available Density **Specific Heat** No Data Available **Molecular Weight** No Data Available **Net Propellant Weight** No Data Available **Octanol Water Coefficient** No Data Available **Particle Size** No Data Available **Partition Coefficient** No Data Available **Saturated Vapour Concentration** No Data Available Vapour Temperature No Data Available Viscosity No Data Available **Volatile Percent** No Data Available

Additional Characteristics Cetrimide is a hygroscopic solid.

Potential for Dust Explosion Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a

potential dust explosion hazard.

No Data Available

VOC Volume

Fast or Intensely Burning

Characteristics

No information available.

Flame Propagation or Burning

Rate of Solid Materials

No information available.

Non-Flammables That Could Contribute Unusual Hazards to a No information available.

Dramartics That M

Properties That May Initiate or Contribute to Fire Intensity

Combustible solid. May support combustion if exposed to fire.

Reactions That Release Gases or

Vapours

Fire or heat will produce irritating, corrosive and/or toxic gases, including Carbon oxides, Nitrogen oxides and Hydrogen

bromide.

Release of Invisible Flammable

Vapours and Gases

No information available.

10. STABILITY AND REACTIVITY

General Information Reacts with strong oxidising agents.

Chemical Stability Stable under normal temperatures and pressures.

Conditions to Avoid Avoid generating dust. Keep away from heat and sources of ignition. Protect from moisture.

Materials to Avoid Incompatible/reactive with oxidising agents.

Hazardous Decomposition

Products

Fire or heat will produce irritating, corrosive and/or toxic gases, including Carbon oxides, Nitrogen oxides and Hydrogen

bromide.

Hazardous Polymerisation Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information

- Acute toxicity: Harmful if swallowed. May be harmful if inhaled and in contact with skin.
- Skin corrosion/irritation: Causes skin irritation.
- Eye damage/irritation: Causes serious eye damage. May cause corneal burns. Irreversible effects on the eye (Rabbit) [ECHA].
- Respiratory/skin sensitisation: Negative (GPMT) [OECD Test Guideline 406].
 Germ cell mutagenicity: No adverse effect observed (negative) [ECHA].
- Carcinogenicity: Cetrimide is not listed as carcinogens by OSHA, NTP or IARC.
- Reproductive toxicity: No information available.
- STOT (single exposure): May cause respiratory irritation.
- STOT (repeated exposure): May cause damage to organs through prolonged or repeated exposure (Oral;

Gastrointestinal tract).

- Aspiration toxicity: No information available.

Acute

Ingestion Acute toxicity (Oral):

- LD50, Rat: 390 mg/kg [OECD Test Guideline 401].

Other Acute toxicity (Dermal):

- LD50, Rabbit: 2,150 mg/kg [ECHA].

Carcinogen Category None

12. ECOLOGICAL INFORMATION

Ecotoxicity Aquatic toxicity:

- LC50, Fish (Danio rerio): >1.81 mg/L (96 h) [ECHA].

- EC50, Crustacea (Daphnia magna): 0.022 mg/L (48 h) [ECHA].

- EC50, Algae (Pseudokirchneriella subcapitata): 0.0054 mg/L (72 h) [ECHA].

Persistence/Degradability Readily biodegradable (at conditions where the substance does not exert toxicity to the microorganisms).

Mobility No information available.

Environmental Fate Very toxic to aquatic life - Avoid release to the environment.

Bioaccumulation Potential No potential for bioaccumulation [ECHA].

Environmental Impact No Data Available

13. DISPOSAL CONSIDERATIONS

General Information Dispose of contents/container in accordance with local/regional/national regulations.

Special Precautions for Land Fill Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner

and scrubber.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name CETRIMIDE

Class No Data Available
Subsidiary Risk(s) No Data Available

EPG 47 Low To Moderate Hazard Substances

UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available

Special Provision AU01

Comments Not regulated as DG when transported by road or rail in packagings that do not incorporate a receptacle

exceeding 500 kg(L) or IBCs.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Myristyltrimethylammonium bromide)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

EPG 47 Low To Moderate Hazard Substances

 UN Number
 3077

 Hazchem
 2Z

 Pack Group
 III

Special Provision No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Myristyltrimethylammonium bromide)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

EPG 47 Low To Moderate Hazard Substances

 UN Number
 3077

 Hazchem
 27

 Pack Group
 III

Special Provision No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Myristyltrimethylammonium bromide)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

ERG 171 Substances (Low to Moderate Hazard)

 UN Number
 3077

 Hazchem
 27

 Pack Group
 III

Special Provision No Data Available

Sea Transport

IMDG Code

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Myristyltrimethylammonium bromide)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

 UN Number
 3077

 Hazchem
 2Z

 Pack Group
 III

Special Provision No Data Available

EMS F-A, S-F
Marine Pollutant Yes

Air Transport

IATA DGR

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Myristyltrimethylammonium bromide)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

 UN Number
 3077

 Hazchem
 2Z

 Pack Group
 III

Special Provision No Data Available

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods

by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information No Data Available
Poisons Schedule (Aust) Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR002503

HSR003595 (Revoked)

National/Regional Inventories

Australia (AIIC) Listed

Canada (DSL) Not Determined

Canada (NDSL) Not Determined

China (IECSC) Not Determined

Europe (EINECS) 214-291-9

Europe (REACh) Not Determined

Japan (ENCS/METI) Not Determined

Korea (KECI) Not Determined

Malaysia (EHS Register) Not Determined

New Zealand (NZIoC) Listed

Philippines (PICCS) Not Determined

Switzerland (Giftliste 1) Not Determined

Switzerland (Inventory of Notified

Substances)

Not Determined

Taiwan (NCSR) Not Determined

USA (TSCA) Not Determined

16. OTHER INFORMATION

Related Product Codes CETMAB1000, CETMAB1001, CETMAB1002, CETMAB1003, CETMAB1012, CETMAB1600, CETMAB1700, CETMAB1800,

CETMAB2000, CETMAB2010

Revision 4

AICS Australian Inventory of Chemical Substances

atm Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm² Square Centimetres

CO2 Carbon Dioxide

COD Chemical Oxygen Demand

deg C (°C) Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Farenheit

g Grams

g/cm³ Grams per Cubic Centimetre

g/I Grams per Litre

HSNO Hazardous Substance and New Organism

IDLH Immediately Dangerous to Life and Health

immiscible Liquids are insoluable in each other.

inHg Inch of Mercury

inH20 Inch of Water

K Kelvin

kg Kilogram

kg/m³ Kilograms per Cubic Metre

Ib Pound

LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

Itr or L Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH20 Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Heath and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

RCP Reciprocal Calculation Procedure

STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight