

Material Safety Data Sheet

CETYL CHLORIDE

Section 1 - Product and Company Information

Substance	: Cetyl chloride, 1-Chlorohexadecane, Hexadecyl chloride
Trade Name	: Cetyl chloride
Chemical Family	: Alkyl halide
Company	: Shiva Pharmachem Ltd. Plot No. 588, Village Luna – 391440 Taluka Padra, District: Vadodara, Gujarat, India.
Phone No.	: +91-2662-221021 / 224360
Fax No.	: +91-2662-223314

Section 2 - Hazards Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)

Skin irritation (Category 2)
Eye irritation (Category 2)
Specific target organ toxicity - single exposure (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Irritating to eyes, respiratory system and skin.

Label elements

Labeling according Regulation (EC) No 1272/2008 (CLP)

Pictogram



Signal Word

Warning

Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary statement(s)

P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrases(s)

R36/37/38

Irritating to eyes, respiratory system and skin.

S-phrases(s)

S24/25

Avoid contact with skin and eye.

S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S27

Take off immediately all contaminated clothing.

S28

After contact with skin, wash immediately with plenty of soap-suds.

S29

Do not empty into drains.

S30

Never add water to this product.

S35

This material and its container must be disposed of in a safe way.

S36

Wear suitable protective clothing

Section 3 – Composition / Information on Ingredients

Product Name	CAS No.	EC No.	Mol. Formula	Mol. Weight.
Cetyl chloride	4860-03-1	225-461-7	C ₁₆ H ₃₃ Cl	260.89 g/mol

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.

If inhaled

If inhaled, move person to fresh air. If not breathing give artificial respiration. Consult a physician.

If skin Contact

Wash off with soap and plenty of water. Consult a physician

If eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

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

Section 5 – Fire Fighting Measures

SUITABLE EXTINGUISHING MEDIA

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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Special hazard arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas

Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

NFPA rating Health – 2; Flammability – 1; Instability - 1

Section 6 – Accidental Release Measures

Personal protection, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mists or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13

Section 7 - Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Keep away from sources of ignition-No smoking. Take measures to prevent the build up of electrostatic charge.

Condition for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store under inert gas.

Specific end uses

No data available

Section 8 - Exposure Controls / Personal Protection

Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Exposure controls

Appropriate engineering controls

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

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Personal protective equipment

Eye/face protection

Face shield and safety glasses 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 Derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, and the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

Respiratory protection

Where risk assessment shows air-purifying respirators and appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

Section 9 - Physical and Chemical Properties

Form	: Liquid
Color	: Colorless
pH	: 4 - 6
BP/BP Range	: 322 °C
MP/MP Range	: 8-14 °C
Flash Point	: 136° C Method: Closed Up
Flammability	: Non flammable
Autoignition Temp	: 220 °C
Oxidizing Properties	: No data available
Explosive Properties	: No data available
Explosive Limits Lower	: No data available
Vapor Pressure	: 1.7hPa@ 140 °C
SG/Density	: 0.865 g/ml at 25°C
Water Solubility	: Insoluble

Section 10 - Stability and Reactivity

Reactivity

No data available

Chemical stability

No data available

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Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents, strong bases

Hazardous decomposition products

No data available

Section 11 - Toxicological Information

Information on toxicological effects**Acute toxicity**

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity-single exposure

No data available

Specific target organ toxicity-repeated exposure

No data available

Aspiration hazard

No data available

Potential health effects

Inhalation : May be Harmful inhaled. Cause respiratory tract irritation.
Ingestion : May be Harmful if swallowed.
Skin : May be Harmful if absorbed through skin. Cause skin irritation.
Eyes : Cause eye irritation

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Section 12 - Ecological Information

Refer to data for ingredients, which follows:

1-CHLOROHEXADECANE:

Marine Pollutant: Yes

! Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

! Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Haloalkanes do not hydrolyse easily.

transformations. Several bacterial strains including methane-utilizing bacteria capable of utilizing haloalkanes have been isolated. Microbial dehalogenation by these strains is mediated by enzymes (oxygenase and hydrolase). The biodegradation of haloalkanes can proceed through different pathways.

DO NOT discharge into sewer or waterways.

Ecotoxicity

Ingredient

1-chlorohexadecane	Persistence: Water/Soil HIGH	Persistence: Air LOW	Bioaccumulation Mobility LOW
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Section 13 - Disposal Considerations

Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packing

Dispose of as unused product.

Section 14 - Transport Information

RID/ADR

UN No. : 3082

Hazard Class : 9

Packing Group : III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(CONTAINS 1-CHLOROHEXADECANE)

IMDG

UN No. : 3082

Hazard Class : 9

Packing Group : III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(CONTAINS 1-CHLOROHEXADECANE)

Marine Pollutant : Yes

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IATA

UN No. : 3082
Hazard Class : 9
Packing Group : III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(CONTAINS 1-CHLOROHEXADECANE)

Section 15 - Regulatory Information

REGULATIONS

1-chlorohexadecane (CAS: 4860-03-1) is found on the following regulatory lists;

"Canada Non-Domestic Substances List (NDSL)", "OECD Representative List of High Production Volume (HPV) Chemicals", "US EPA High Production Volume Program Chemical List", "US Toxic Substances Control Act (TSCA) - Inventory", "US TSCA Section 4 (e) - ITC Priority Testing List", "US TSCA Section 8 (a) - Preliminary Assessment Information Rules (PAIR) - Reporting List", "US TSCA Section 8 (d) - Health and Safety Data Reporting"

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

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

Section 16 - Additional Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Shiva Pharmachem Ltd. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incident, consequential or exemplary damages, howsoever arising, even if Shiva Pharmachem Ltd has been advised of the possibility of such damages