

ALFAAB23406

## 1-Chlorohexadecane

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>产品说明:</b> <b>Product Description:</b>	<b>1-氯十六烷 97%</b> <b>1-Chlorohexadecane</b>
<b>Cat No. :</b>	<b>B23406</b>
<b>Synonyms</b>	Cetyl chloride; Hexadecyl chloride
<b>CAS No</b>	4860-03-1
<b>Molecular Formula</b>	C16 H33 Cl
<b>Supplier</b>	Avocado Research Chemicals Ltd. (Part of Thermo Fisher Scientific) Shore Road, Heysham Lancashire, LA3 2XY, United Kingdom Office Tel: +44 (0) 1524 850506 Office Fax: +44 (0) 1524 850608
<b>Emergency Telephone Number</b>	For information <b>US</b> call: 001-800-227-6701 / <b>Europe</b> call: +32 14 57 52 11 Emergency Number <b>US</b> :001-201-796-7100 / <b>Europe</b> : +32 14 57 52 99 <b>CHEMTREC</b> Tel. No. <b>US</b> :001-800-424-9300 / <b>Europe</b> :001-703-527-3887
<b>E-mail address</b>	begel.sdsdesk@thermofisher.com
<b>Recommended Use</b> <b>Uses advised against</b>	Laboratory chemicals. No Information available

### SECTION 2. HAZARD IDENTIFICATION

<b>Physical State</b> Liquid	<b>Appearance</b> Colorless	<b>Odor</b> Odorless
<b>Emergency Overview</b> The product contains no substances which at their given concentration are considered to be hazardous to health.		

#### Classification of the substance or mixture

Based on available data, the classification criteria are not met

#### Label Elements

None required

#### **Physical and Chemical Hazards**

None identified.

#### **Health Hazards**

The product contains no substances which at their given concentration are considered to be hazardous to health.

#### **Environmental hazards**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants. Is not likely mobile in the environment due its low water solubility. Spillage unlikely to penetrate soil. The product is insoluble and floats on

water.

This product does not contain any known or suspected endocrine disruptors.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Hexadecane, 1-chloro-	4860-03-1	97

### SECTION 4. FIRST AID MEASURES

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

#### Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention.

#### Inhalation

Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.

#### Ingestion

Clean mouth with water. Get medical attention.

#### Most important symptoms and effects

Difficulty in breathing. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

#### Self-Protection of the First Aider

No special precautions required.

#### Notes to Physician

Treat symptomatically. Symptoms may be delayed.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Suitable Extinguishing Media

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

#### Extinguishing media which must not be used for safety reasons

No information available.

#### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

#### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### Personal Precautions

Ensure adequate ventilation.

#### Environmental Precautions

See Section 12 for additional Ecological Information.

**Methods for Containment and Clean Up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

Refer to protective measures listed in Sections 8 and 13.

**SECTION 7. HANDLING AND STORAGE****Handling**

Avoid contact with skin and eyes. Do not breathe mist/vapors/spray.

**Storage**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

**Specific Use(s)**

Use in laboratories

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control Parameters****Exposure Controls****Engineering Measures**

None under normal use conditions.

**Personal protective equipment****Eye Protection**

Wear safety glasses with side shields (or goggles) (European standard - EN 166)

**Hand Protection**

Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Viton (R)	See manufacturers recommendations	-	EN 374	(minimum requirement)

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

**Respiratory Protection**

No protective equipment is needed under normal use conditions.

**Large scale/emergency use**

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced  
**Recommended Filter type:** Particle filter

**Small scale/Laboratory use**

Maintain adequate ventilation  
**Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Colorless	
Physical State	Liquid	
Odor	Odorless	
Odor Threshold	No data available	
pH	No information available	
Melting Point/Range	8 °C / 46.4 °F	
Softening Point	No data available	
Boiling Point/Range	322 °C / 611.6 °F	
Flash Point	136 °C / 276.8 °F	Method - No information available
Evaporation Rate	No data available	
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Vapor Pressure	1.7 hPa @ 140 °C	
Vapor Density	9.0	(Air = 1.0)
Specific Gravity / Density	0.860	
Bulk Density	Not applicable	Liquid
Water Solubility	0.02 G/L (20°C)DEC	practically insoluble
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Autoignition Temperature	220 °C / 428 °F	
Decomposition Temperature	No data available	
Viscosity	6.1 mPa s at 20 °C	
Explosive Properties	No information available	
Oxidizing Properties	No information available	
Molecular Formula	C16 H33 Cl	
Molecular Weight	260.88	

**SECTION 10. STABILITY AND REACTIVITY**

Stability	Stable under normal conditions.
Hazardous Reactions	No information available.
Hazardous Polymerization	No information available.
Conditions to Avoid	Incompatible products.
Materials to avoid	Strong oxidizing agents. Strong bases.

Hazardous Decomposition Products Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen chloride gas.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Product Information	No acute toxicity information is available for this product
(a) acute toxicity;	
(b) skin corrosion/irritation;	No data available
(c) serious eye damage/irritation;	No data available

**(d) respiratory or skin sensitization;****Respiratory**

No data available

**Skin**

No data available

**(e) germ cell mutagenicity;**

No data available

**(f) carcinogenicity;**

No data available

There are no known carcinogenic chemicals in this product

**(g) reproductive toxicity;**

No data available

**(h) STOT-single exposure;**

No data available

**(i) STOT-repeated exposure;**

No data available

**Target Organs**

No information available.

**(j) aspiration hazard;**

No data available

**Symptoms / effects, both acute and delayed**

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

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**Persistence and Degradability  
Persistence**Expected to be biodegradable  
Insoluble in water.**Bioaccumulative Potential**

May have some potential to bioaccumulate

**Mobility in soil**

Spillage unlikely to penetrate soil The product is insoluble and floats on water Is not likely mobile in the environment due its low water solubility

**Endocrine Disruptor Information  
Persistent Organic Pollutant  
Ozone Depletion Potential**This product does not contain any known or suspected endocrine disruptors  
This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance**SECTION 13. DISPOSAL CONSIDERATIONS****Waste from Residues/Unused Products**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**Contaminated Packaging**

Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.

**Other Information**

Waste codes should be assigned by the user based on the application for which the product

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was used.

## SECTION 14. TRANSPORT INFORMATION

**Road and Rail Transport**

Not Regulated

**IMDG/IMO**

Not regulated

**IATA**

Not regulated

**Special Precautions for User**

No special precautions required

## SECTION 15. REGULATORY INFORMATION

**International Inventories**

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	The Inventory of Hazardous Chemicals (2015 Edition)	List of dangerous goods GB 12268 - 2012	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
Hexadecane, 1-chloro-	-	-	X	X	225-461-7	X	-	X	X	X	X	-

**National Regulations**

## SECTION 16. OTHER INFORMATION

**Prepared By**

Health, Safety and Environmental Department

**Revision Date**

16-May-2024

**Revision Summary**

New emergency telephone response service provider.

**Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

**Legend****CAS** - Chemical Abstracts Service**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**IECSC** - Chinese Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**ENCS** - Japanese Existing and New Chemical Substances**AICS** - Australian Inventory of Chemical Substances**NZIoC** - New Zealand Inventory of Chemicals**WEL** - Workplace Exposure Limit**ACGIH** - American Conference of Governmental Industrial Hygienists**DNEL** - Derived No Effect Level**RPE** - Respiratory Protective Equipment**TWA** - Time Weighted Average**IARC** - International Agency for Research on Cancer**PNEC** - Predicted No Effect Concentration**LD50** - Lethal Dose 50%

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**LC50** - Lethal Concentration 50%**NOEC** - No Observed Effect Concentration**PBT** - Persistent, Bioaccumulative, Toxic**EC50** - Effective Concentration 50%**POW** - Partition coefficient Octanol:Water**vPvB** - very Persistent, very Bioaccumulative**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road**OECD** - Organisation for Economic Co-operation and Development**BCF** - Bioconcentration factor**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code**MARPOL** - International Convention for the Prevention of Pollution from Ships**ATE** - Acute Toxicity Estimate**VOC** - (Volatile Organic Compound)**Key literature references and sources for data**<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**