

**Butyl chloride-(1) - (1-Chlorobutane), H**

Revision: 26.05.2025

Product code: AC11.00773

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Butyl chloride-(1) - (1-Chlorobutane), H

Substance name: "1-chlorobutane; butyl chloride"  
CAS No: 109-69-3  
EC No: 203-696-6

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Reagents and laboratory chemicals  
Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

**1.3. Details of the supplier of the safety data sheet****Details of the supplier of the safety data sheet**

Company name: AnalytiChem Services, Unipessoal, Lda  
Street: Rua de Júlio Dinis 676 7º  
Place: N-4050-320 Porto  
Telephone: +351 226002917  
E-mail: info@analyticchem.com  
Contact person: SDS service department  
E-mail: SDS@analyticchem.com  
Internet: www.analyticchem.com  
Responsible Department: SDS service department

**Supplier or manufacturer details**

Company name: AnalytiChem Belgium NV  
Street: Industriezone "De Arend" 2  
Place: B-8210 Zedelgem  
Telephone: +32 50 28 83 20  
E-mail: info.be@analyticchem.com  
Contact person: SDS service department  
E-mail: SDS@analyticchem.com  
Responsible Department: AnalytiChem  
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333  
+44 20 3807 3798 (CHEMTREC)

**1.4. Emergency telephone number:**

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## Further Information

No data available

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

## Regulation (EC) No 1272/2008

Flam. Liq. 2; H225  
Asp. Tox. 1; H304  
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

## 2.2. Label elements

## Regulation (EC) No 1272/2008

Signal word: Danger

Pictograms:



## Hazard statements

H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H412 Harmful to aquatic life with long lasting effects.

## Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P243 Take action to prevent static discharges.  
P280 Wear protective gloves/protective clothing and eye protection/face protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P331 Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container to an appropriate recycling or disposal facility.

## 2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

## 3.1. Substances

Sum formula: C4H9Cl  
Molecular weight: 92,57 g/mol

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## Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
109-69-3	"1-chlorobutane; butyl chloride"			100 %
	203-696-6			
	Flam. Liq. 2, Asp. Tox. 1, Aquatic Chronic 3; H225 H304 H412			

Full text of H and EUH statements: see section 16.

## Further Information

No data available

## SECTION 4: First aid measures

## 4.1. Description of first aid measures

## General information

First aider: Pay attention to self-protection!

## After inhalation

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

## After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

## After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

## After ingestion

Rinse mouth.

Do NOT induce vomiting. Aspiration hazard

Call a physician immediately.

## 4.2. Most important symptoms and effects, both acute and delayed

Observe risk of aspiration if vomiting occurs.

Irritant

Depression of central nervous system, Headache, Nausea Dizziness, Impaired consciousness, Respiratory complaints, Aspiration pneumonia possible

## 4.3. Indication of any immediate medical attention and special treatment needed

No data available

## SECTION 5: Firefighting measures

## 5.1. Extinguishing media

## Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

## Unsuitable extinguishing media

Full water jet

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**5.2. Special hazards arising from the substance or mixture**

Combustible liquids

Highly flammable liquid and vapour.

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Explosive mixtures with air are possible even at normal temperatures.

Hazardous combustion products

In case of fire may be liberated:

Hydrochloric gas

Carbon dioxide

Carbon monoxide

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

Heating causes rise in pressure with risk of bursting.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Vapours can form explosive mixtures with air.

**For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

To follow: Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

Explosion risk.

**6.3. Methods and material for containment and cleaning up****For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Collect in closed and suitable containers for disposal.

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

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Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Read label before use.  
Handle and open container with care.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Provide adequate ventilation.  
Use extractor hood (laboratory).

**Advice on protection against fire and explosion**

Take precautionary measures against static discharges.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).

**Advice on general occupational hygiene**

Keep away from: Food and feedingstuffs  
When using do not eat, drink, smoke, sniff.  
Provide eye shower and label its location conspicuously  
In the immediate working surroundings there must be: Emergency shower installed

**Further information on handling**

Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary.  
Take off immediately all contaminated clothing and wash it before reuse.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.  
Protect against: Radiant heat.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Hints on joint storage**

National regulations

**Further information on storage conditions**

Store in a dry place.  
Store in a well-ventilated place.

**7.3. Specific end use(s)**

The product is intended for research, analysis and scientific education.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Additional advice on limit values**

Observe in addition any national regulations!

**8.2. Exposure controls****Appropriate engineering controls**

Provide adequate ventilation as well as local exhaustion at critical locations.  
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

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**Individual protection measures, such as personal protective equipment****Eye/face protection**

goggles  
Face protection umbrella

**Hand protection**

Tested protective gloves must be worn  
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.  
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.  
When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.  
Take off immediately all contaminated clothing and wash it before reuse.

**Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**Thermal hazards**

No data available

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	Liquid	
Colour:	colourless	
Odour:	stinging	
Odour threshold:	No data available	
		<b>Test method</b>
Melting point/freezing point:	-123 °C	
Boiling point or initial boiling point and boiling range:	78 °C	
Flammability:	No data available	
Lower explosion limits:	1,8 vol. %	
Upper explosion limits:	10,1 vol. %	
Flash point:	-12 °C	
Auto-ignition temperature:	245 °C	
Decomposition temperature:	No data available	
pH-Value:	No data available	
Viscosity / kinematic:	0,5 mm <sup>2</sup> /s	
Water solubility: (at 20 °C)	0,11 g/l	OECD 105
Solubility in other solvents		
No data available		
Dissolution rate:	No data available	
Partition coefficient n-octanol/water:	2,66	OECD 107
Dispersion stability:	No data available	
Vapour pressure: (at 20 °C)	120,6 hPa	

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Vapour pressure:	388 hPa
(at 50 °C)	
Density (at 25 °C):	0,886 g/cm <sup>3</sup>
Relative density (at 20 °C):	0,88
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

**9.2. Other information****Information with regard to physical hazard classes****Explosive properties**

Vapours can form explosive mixtures with air.

**Sustained combustibility:**

No data available

**Self-ignition temperature**

Solid:

No data available

Gas:

No data available

**Oxidizing properties**

No data available

**Other safety characteristics****Evaporation rate:**

No data available

**Solvent separation test:**

No data available

**Solvent content:**

No data available

**Solid content:**

No data available

**Sublimation point:**

No data available

**Softening point:**

No data available

**Pour point:**

No data available

**No data available:**

No data available

**Viscosity / dynamic:**

No data available

**Flow time:**

No data available

**Further Information**

No data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Vapours can form explosive mixtures with air.

**10.2. Chemical stability**

Protect against: Radiant heat.

**10.3. Possibility of hazardous reactions**

Oxidising agent

Alkali metals

Alkaline earth metals

Powdered metals

Alkali metal amides

**10.4. Conditions to avoid**

Radiant heat.

**10.5. Incompatible materials**

various plastics Light metal

**10.6. Hazardous decomposition products**

In case of fire may be liberated:

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**SECTION 5: Firefighting measures****Further information**

No data available

**SECTION 11: Toxicological information****11.1. Information on hazard classes****Acute toxicity**

Based on available data, the classification criteria are not met.

**Irritation and corrosivity**

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards****Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**Other information**

No data available

**Further information**

No data available

**SECTION 12: Ecological information****12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No data available

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**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of UK REACH.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

**Further information**

Do not allow to enter into surface water or drains.

Explosion risk.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Send to a physico-chemical treatment facility under observation of official regulations.

Do not allow to enter into surface water or drains.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b><u>14.1. UN number or ID number:</u></b>	UN 1127
<b><u>14.2. UN proper shipping name:</u></b>	CHLOROBUTANES
<b><u>14.3. Transport hazard class(es):</u></b>	3
<b><u>14.4. Packing group:</u></b>	II
Hazard label:	3
Classification code:	F1
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

**Inland waterways transport (ADN)**

<b><u>14.1. UN number or ID number:</u></b>	UN 1127
<b><u>14.2. UN proper shipping name:</u></b>	CHLOROBUTANES
<b><u>14.3. Transport hazard class(es):</u></b>	3
<b><u>14.4. Packing group:</u></b>	II
Hazard label:	3
Classification code:	F1
Limited quantity:	1 L
Excepted quantity:	E2

**Marine transport (IMDG)**

<b><u>14.1. UN number or ID number:</u></b>	UN 1127
<b><u>14.2. UN proper shipping name:</u></b>	CHLOROBUTANES
<b><u>14.3. Transport hazard class(es):</u></b>	3
<b><u>14.4. Packing group:</u></b>	II
Hazard label:	3
Special Provisions:	-

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Limited quantity: 1 L  
Excepted quantity: E2  
EmS: F-E, S-D  
Segregation group: 10 - liquid halogenated hydrocarbons

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 1127  
**14.2. UN proper shipping name:** CHLOROBUTANES  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Limited quantity Passenger: 1 L  
Passenger LQ: Y341  
Excepted quantity: E2  
IATA-packing instructions - Passenger: 353  
IATA-max. quantity - Passenger: 5 L  
IATA-packing instructions - Cargo: 364  
IATA-max. quantity - Cargo: 60 L

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

**14.7. Maritime transport in bulk according to IMO instruments**

No dangerous good in sense of this transport regulation.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

Information according to Directive P5c FLAMMABLE LIQUIDS

2012/18/EU (SEVESO III):

**Additional information**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

**National regulatory information****SECTION 16: Other information****Abbreviations and acronyms**

Flam. Liq. 2: Flammable liquids, hazard category 2

Asp. Tox. 1: Aspiration hazard, hazard category 1

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3

**Relevant H and EUH statements (number and full text)**

H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H412 Harmful to aquatic life with long lasting effects.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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