



SIGMA-ALDRICH

Material Safety Data Sheet

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Version 1.70

Section 1 - Product and Company Information

Product Name 1-Butyl-3-methylimidazolium chloride
Product Number 38899
Brand Fluka Chemical

Company Sigma-Aldrich
Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-5832
Fax: 800-325-5052
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
1-BUTYL-3-METHYLIMIDAZOLIUM CHLORIDE	79917-90-1	No		

Formula C8H15ClN2
Synonyms

Section 3 - Hazards Identification

Emergency Overview

Toxic. Dangerous for the environment.
Toxic if swallowed. Irritating to eyes, respiratory system and skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

HMIS Rating
Health: 2 Flammability: 0 Reactivity: 1

NFPA Rating
Health: 2 Flammability: 0 Reactivity: 1

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

Inhalation Exposure

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Flash Point: 377.6 °F 192 °C

Autoignition Temp: 460 °C

Extinguishing Media

Suitable

Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting

Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)

Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill

Evacuate area.

Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling

User Exposure

Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed.

Special Requirements

Hygroscopic.

Section 8 - Exposure Controls / PPE

Engineering Controls

Use only in a chemical fume hood. Safety shower and eye bath.

Personal Protective Equipment

Respiratory

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand

Compatible chemical-resistant gloves.

Eye

Chemical safety goggles.

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General Hygiene Measures

Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance		
Physical State	Color	
Solid	Slightly yellow	
Molecular Weight:	174.67 AMU	
pH	7.9	Concentration: 100 g/l
BP/BP Range	N/A	
MP/MP Range	70 °C	
Freezing Point	N/A	
Vapor Pressure	< 0.0000075 mmHg	20 °C
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	1.086 g/cm ³	20 °C
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	0.147 Pas	80 °C
Partition Coefficient	Log Kow: -2.7	
Decomposition Temp.	N/A	
Flash Point °F	377.6 °F	
Flash Point °C	192 °C	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	480 °C	
Solubility		
Solubility in Water:	Miscible.	
Solvent:	Methanol	

N/A = not available

Section 10 - Stability and Reactivity

Stability
Stable
 Stable.
Conditions of Instability
 Moisture sensitive.
Materials to Avoid
 Strong oxidizing agents.

Hazardous Decomposition Products**Hazardous Decomposition Products**

Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, Nitrogen oxides.

Hazardous Polymerization
Hazardous Polymerization
 Will not occur.

Section 11 - Toxicological Information**Route of Exposure****Skin Contact**

Causes skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

Causes eye irritation.

Inhalation

Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion

Toxic if swallowed.

RTECS Number: N/A**Toxicity Data**

Oral - rat, female: 50 - < 300 mg/kg(LD50)

Skin - Rat: > 2,000 mg/kg(LD50)

Irritation Data

Skin - Rabbit:

Remarks: Moderate irritation effect

Inhalation - Rabbit:

Remarks: Moderate Irritation effect

Section 12 - Ecological Information**Acute Ecotoxicity Tests****Test Type**

LC50 Fish

Species

Brachydanio rerio

Time:

96.0 h

Value:

> 100 mg/l

Test Type

LC50 Daphnia

Species

Daphnia magna

Time:

48.0 h

Value:

6.3 mg/l

Elimination**Method**

Biotic/Aerobic

Elimination:

40 - 50 %

Classification

Partially biodegradable.

Additional Results/Data from Relevant Scientific Experiments

Avoid contamination of the environment

Section 13 - Disposal Considerations**Appropriate Method of Disposal of Substance or Preparation**

Contact a licensed professional waste disposal service to dispose of this material.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Toxic solids, organic, n.o.s.
UN#: 2811
Class: 6.1
Packing Group: Packing Group III
Hazard Label: Toxic substances.
PIH: Not PIH

IATA

Proper Shipping Name: Toxic solid, organic, n.o.s.
IATA UN Number: 2811
Hazard Class: 6.1
Packing Group: III

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: T N

Indication of Danger

Toxic. Dangerous for the environment.

Risk Statements R: 25 36/37/38 51/53

Toxic if swallowed. Irritating to eyes, respiratory system and skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Statements S: 26 45 61

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/safety data sheets.

US Classification and Label Text

Indication of Danger

Toxic. Dangerous for the environment.

Risk Statements

Toxic if swallowed. Irritating to eyes, respiratory system and skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/safety data sheets.

United States Regulatory Information

SARA Listed: No

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for

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