

## METHYL AMMONIUM CHLORIDE

## MATERIAL SAFETY DATA SHEET SDS/MSDS

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name : Methyl Ammonium Chloride (Methylamine Hydrochloride)  
Synonyms : Methylamine Hydrochloride  
CAS. NO. : 593-51-1

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

#### 1.3 Details of the supplier of the safety data sheet

Company : Central Drug House (P) Ltd  
7/28 Vardaan House  
New Delhi -110002  
INDIA  
Telephone : +91 11 49404040  
Email : [care@cdhfinechemical.com](mailto:care@cdhfinechemical.com)

#### 1.4 Emergency telephone number

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 Label elements

##### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed.

Precautionary statement(s)

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P501 Dispose of contents/ container to an approved waste disposal plant.  
Supplemental Hazard none  
Statements

**Reduced Labeling (<= 125 ml)**

Pictogram



Signal Word Warning  
Hazard statement(s) none  
Precautionary statement(s) none  
Supplemental Hazard none  
Statements

**2.3 Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**SECTION 3: Composition/information on ingredients**

Formula : CH<sub>5</sub>N · ClH  
Molecular weight : 67,52 g/mol  
CAS-No. : 593-51-1  
EC-No. : 209-795-0

Component	Classification	Concentration
<b>methyllummonium chloride</b>		
CAS-No. 593-51-1	Acute Tox. 4; H302	<= 100 %
EC-No. 209-795-0		

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General advice**

Show this material safety data sheet to the doctor in attendance.

**If inhaled**

After inhalation : fresh air.

**In case of skin contact**

In case of skin contact : Take off immediately all contaminated clothing. Rinse skin with water/ shower.

**In case of eye contact**

After eye contact: Rinse out with plenty of water. Remove contact lenses.

**If swallowed**

After swallowing: Immediately make victim drink water (two glasses at most). Consult a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**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**

Water, Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder

**Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

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

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

Hydrogen chloride gas

Combustible.

Fire may cause evolution of:

Hydrogen chloride gas, nitrogen oxides

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

**5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

**5.4 Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

**6.4 Reference to other sections**

For disposal see section 13.

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

For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities****Storage conditions**

Tightly closed. Dry.

Recommended storage temperature see product label.

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

### 8.2 Exposure controls

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

##### Skin protection

Handle with gloves.

##### Body Protection

protective clothing.

##### Respiratory protection

Air-purifying respirators

##### Control of environmental exposure

Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Physical state	crystals
b) Color	white
c) Odor	No data available
d) Melting point/freezing point	Melting point/range: 209,3 - 215,3 °C at 977,8 hPa - OECD Test Guideline 102
e) Initial boiling point and boiling range	> 250 °C at 978,4 hPa - OECD Test Guideline 103
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	209,3 °C - closed cup
i) Autoignition temperature	not auto-flammable
j) Decomposition temperature	No data available
k) pH	5,0 - 7,0 at 10 g/l at 20 °C
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m) Water solubility	1,08 g/l at 20 °C - soluble
n) Partition coefficient: n-octanol/water	No data available
o) Vapor pressure	No data available
p) Density	0,489 g/cm <sup>3</sup> at 26,6 °C - OECD Test Guideline 109
Relative density	No data available
q) Relative vapor density	No data available

- |    |                          |                   |
|----|--------------------------|-------------------|
| r) | Particle characteristics | No data available |
| s) | Explosive properties     | No data available |
| t) | Oxidizing properties     | None              |

## 9.2 Other safety information

Bulk density 1.100 kg/m<sup>3</sup>

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

### 10.3 Possibility of hazardous reactions

Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines!

Violent reactions possible with:

Strong oxidizing agents

### 10.4 Conditions to avoid

Avoid moisture.

Strong heating.

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 1.600 mg/kg

Remarks: absorption

(ECHA)

Inhalation: No data available

Dermal: No data available

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

Remarks: (ECHA)

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Remarks: (ECHA)

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Remarks: (ECHA)

**Carcinogenicity**

No data available

**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

**Additional Information**

No data available

**11.2 Additional Information****Endocrine disrupting properties****Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae static test EC50 - Desmodesmus subspicatus (green algae) - 971,6 mg/l - 72 h (OECD Test Guideline 201)

**12.2 Persistence and degradability**

Biodegradability Result: 100 % - Readily biodegradable.  
Remarks: (ECHA)

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Endocrine disrupting properties

### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 12.7 Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

-

### 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

-

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 14.6 Special precautions for user

No data available

#### Further information

Not classified as dangerous in the meaning of transport regulations.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed.

### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Further information

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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.cdhfinechemical.com](http://www.cdhfinechemical.com) for additional terms and conditions of sale.