Safety Data Sheet

1-Butyl-4-methylpyridinium chloride

Revision Date: 12/06/2010
Date Issued: 12/12/2017

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: 1-Butyl-4-methylpyridinium chloride
Product code: IL-0083
CAS: 112400-86-9
REACH No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

Identified uses: Laboratory chemicals, Manufacture of substances

Supplier: IoLiTec
Ionic Liquids Technologies GmbH
Salzstrasse 184
D – 74076 Heilbronn
Germany

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Fax: +49 (0)7131-89839-109
Emergency telephone: +49 (0)176-84850874
Email: msds@iolitec.de

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008)

Skin irritation (Category 2)
Eye irritation (Category 2)
Specific target organ toxicity - single exposure (Category 3)
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Classification (67/548/EEC or 1999/45/EC)

Irritating to eyes, respiratory system and skin.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)

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.

Supplemental Hazard Statements none

Labelling (67/548/EEC or 1999/45/EC)

Hazard symbol(s)

R-phrases(s)
R36/37/38 Irritating to eyes, respiratory system and skin.
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S-phrase(s)
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36 Wear suitable protective clothing.
Caution - substance not yet tested completely.

3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Contents</th>
<th>Health(Class)</th>
<th>Risk(R/No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Butyl-4-methylpyridinium chloride</td>
<td>&gt;98%</td>
<td>Substance not yet fully tested!</td>
<td></td>
</tr>
</tbody>
</table>

4 FIRST AID MEASURES

General
Contaminated clothing should be removed and washed before being reused.

Inhalation
Move the exposed person to fresh air at once.
If respiratory problems, provide artificial respiration/oxygen.

Ingestion
Immediately rinse mouth and provide fresh air.
Do not induce vomiting. Get medical attention immediately.

Skin
Wash the skin immediately with soap and water.

Eyes
Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.
5 FIRE FIGHTING MEASURES

Extinguishing media
Use: Water spray, fog or mist. Carbon dioxide (CO₂). Dry chemicals, sand, dolomite etc.

Special fire fighting procedures
Avoid water in straight hose stream, will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control.

Unusual fire & explosion hazards
Fire causes formation of toxic gases.

Protective measures in fire
Wear self-contained breathing apparatus as combustion may produce hazardous fumes.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions during spill
Wear protective clothing and avoid inhalation of vapor, skin or eye contact.

Precautions to protect environment
Avoid washing into water courses. Avoid contaminating public drains or water supply.

Spill cleanup methods
Avoid contact with skin or inhalation of spillage, dust or vapor. Avoid dust formation. Collect and reclaim or dispose in sealed containers in license waste. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.
Usage precautions
Keep away from heat, sparks and open flame.
Do not use in confined spaces without adequate ventilation and/or respirator.

Storage precautions
Store at moderate temperatures in dry, well-ventilated area.

Storage criteria
Chemical storage.

Personal protective equipment
Eye/face protection
Safety glasses with side-shields conforming to EN 166. 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
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
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9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance               Solid.
Color                    Colorless to yellow.
Odor/taste               No characteristic odor.

10 STABILITY AND REACTIVITY

Stability                No particular stability concerns.
Conditions to avoid       Avoid contact to strong oxidizers and bases.
Hazardous                
Decomposition Products    High temperatures generate: Corrosive

11 TOXICOLOGICAL INFORMATION

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 present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
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Reproductive toxicity
no data available

Specific target organ toxicity - single exposure
Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes serious eye irritation.

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

Additional Information
RTECS: Not available

12 ECOLOGICAL INFORMATION

Environmental hazards
Avoid washing into water courses. Avoid contaminating public drains or water supply.

13 DISPOSAL CONSIDERATIONS

Disposal method
Contact specialist disposal companies. Dispose of in accordance with Local Authority
requirements. Recover and reclaim or recycle, if practical.
14 TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Group</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Not classified as dangerous for transport purposes.</td>
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<tr>
<td>UN No.</td>
<td>0</td>
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<tr>
<td>Road transport notes</td>
<td>Not classified as dangerous for road transport.</td>
</tr>
<tr>
<td>Rail transport notes</td>
<td>Not classified as dangerous for rail transport.</td>
</tr>
<tr>
<td>Sea transport notes</td>
<td>Not classified as dangerous for sea transport.</td>
</tr>
<tr>
<td>Air transport notes</td>
<td>Not classified as dangerous for air transport.</td>
</tr>
</tbody>
</table>

15 REGULATORY INFORMATION

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

Safety, health and environmental regulations/legislation specific for the substance or mixture: no data available

Chemical Safety Assessment: no data available

Country specific information

Germany: WGK: 3 (Self-Classification)
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