SAFETY DATA SHEETS

According to the UN GHS revision 9

SECTION 1: Identification

1.1 GHS Product identifier

Product name: N,N'-dibenzylethylenediammonium di(acetate)

1.2 Other means of identification

Product number: -

Other names:
- N,N-Dibenzylethylene diamine
- Diacetate; N,N'-Dibenzylethylenediamine
- Diacetate; N1,N2-Dibenzylethane-1,2-diamine diacetate

1.3 Recommended use of the chemical and restrictions on use

Identified uses: Industrial and scientific research use.

Uses advised against: No data available

1.4 Supplier's details

Company: chemicalbook
Address: 507, building 1, Huihuang international, Shangdi 10th Street, Haidian District, Beijing
Telephone: 86-10-69703845

1.5 Emergency phone number

Emergency phone number: 13121892008

Service hours: Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Acute toxicity - Category 4, Oral

2.2 GHS label elements, including precautionary statements
SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common names and synonyms</th>
<th>CAS number</th>
<th>EC number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>N,N'-dibenzylethylenediammonium di(acetate)</td>
<td>N,N'-dibenzylethylenediammonium di(acetate)</td>
<td>122-75-8</td>
<td>204-572-4</td>
<td>100%</td>
</tr>
</tbody>
</table>

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.
Following ingestion
Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2 Most important symptoms/effects, acute and delayed
no data available

4.3 Indication of immediate medical attention and special treatment needed, if necessary
no data available

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Use dry chemical, carbon dioxide or alcohol-resistant foam.

5.2 Specific hazards arising from the chemical
no data available

5.3 Special protective actions for fire-fighters
Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions
Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. 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.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state: white aciculate crystal or powder
Colour: no data available
Odour: no data available
Melting point/freezing point: 210°C (lit.)
Boiling point or initial boiling point and boiling range: 230°C/16mmHg (lit.)
Flammability: no data available
Lower and upper explosion limit/flammability limit: no data available
Flash point: 75°C (lit.)
Auto-ignition temperature: no data available
Decomposition temperature: no data available
pH: no data available
Kinematic viscosity: no data available
Solubility: no data available
Partition coefficient n-octanol/water: no data available
Vapour pressure: 8.76E-06mmHg at 25°C
Density and/or relative density: 1.028g/cm³
Relative vapour density: no data available
Particle characteristics: no data available

SECTION 10: Stability and reactivity

10.1 Reactivity
no data available

10.2 Chemical stability
no data available

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
no data available

10.5 Incompatible materials
no data available
SECTION 11: Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation
no data available

Serious eye damage/irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

STOT-single exposure
no data available

STOT-repeated exposure
no data available

Aspiration hazard
no data available

SECTION 12: Ecological information

12.1Toxicity

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Other adverse effects
no data available

SECTION 13: Disposal considerations

13.1 Disposal methods

Product
The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging
Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

14.1 UN Number

(For reference only, please check.) (For reference only, please check.) (For reference only, please check.)

14.2 UN Proper Shipping Name

(For reference only, please check.) (For reference only, please check.) (For reference only, please check.)

14.3 Transport hazard class(es)
ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. (For reference only, please check.)

14.4 Packing group, if applicable

ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. (For reference only, please check.)

14.5 Environmental hazards

ADR/RID: No IMDG: No IATA: No

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common names and synonyms</th>
<th>CAS number</th>
<th>EC number</th>
</tr>
</thead>
<tbody>
<tr>
<td>N,N'-dibenzylethylenediammonium di(acetate)</td>
<td>N,N'-dibenzylethylenediammonium di(acetate)</td>
<td>122-75-8</td>
<td>204-572-4</td>
</tr>
</tbody>
</table>

European Inventory of Existing Commercial Chemical Substances (EINECS) Listed.
EC Inventory Listed.
United States Toxic Substances Control Act (TSCA) Inventory Listed.
China Catalog of Hazardous chemicals 2015 Not Listed.
New Zealand Inventory of Chemicals (NZIoC) Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS) Listed.
Vietnam National Chemical Inventory Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) Not Listed.
Korea Existing Chemicals List (KECL) Not Listed.

SECTION 16: Other information

Information on revision

Creation Date July 15, 2019
Revision Date July 15, 2019
Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/
- CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/stoffdatenbank/index-2.jsp