

SAFETY DATA SHEET

Benzethonium chloride

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

1.1 Identification of the substance

Product Name: Benzethonium chloride

CAS NO.: 121-54-0

1.2 Details of the supplier of the safety data sheet INVENTYS

RESEARCH COMPANY

D514 Kanakia Zillion,

BKC Annex, Mumbai 400070

(LBS Road Junction, CST Road, Near Kurla Bus Depot www.Inventys.In)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 3), H301

Skin corrosion (Category 1B), H314

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

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

2.2 Label elements



Signal word: Danger

Hazard statement(s):

H301: Toxic if swallowed.

H314: Causes severe skin burns and eye damage.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P273: Avoid release to the environment.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER/doctor.

P260: Do not breathe dust or mist.

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

3.1 Substances

Synonyms : Phemerol chloride

CAS RN: 121-54-0

EC-No: 204-479-9

Molecular weight: 448.08 g/mol

Formula: C₂₇H₄₂ClNO₂

Hazardous ingredients according to Regulation (EC) No 1272/2008:

Component	Classification	Concentration
Benzethonium chloride		
	Acute Tox. 3; Skin Corr. 1B; Aquatic Acute 1; Aquatic Chronic 1; H301, H314, H400, H410 M-Factor - Aquatic Acute: 1	<= 100 %

SECTION 4: First aid measures

4.1 Description of first aid measure

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact:

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed:

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. 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:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Light sensitive. hygroscopic Handle and store under inert gas.

7.3 Specific end use(s):

Laboratory chemicals, Manufacture of substances.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls:

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Eye/face protection:

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(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 Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (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.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form: solid

Colour: white

Odour: odourless

PH: 5.5 - 7.5 at 44.8 g/l at 25 °C

Melting point/freezing point: 162 - 164 °C - lit.

Boiling point/range: No data available

Flash point: No data available

Evaporation rate: No data available

Flammability(solid, gas): No data available

Flammability or explosive limits: No data available

Lower: No data available

Upper: No data available

Vapour pressure: < 0.001 hPa

Vapour density: No data available

Relative density: No data available

Solubility(ies): No data available

[Water]: 44.8 g/l at 20 °C

[Other solvents] Soluble: No data available

Partition coefficient: n-octanol/wat: log Pow: 1.08 at 20 °C

Auto ignition temperature: No data available

Decomposition temperature: 162 - 164 °C

Dynamic Viscosity: No data available

Kinematic viscosity: No data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity: No data available

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: No data available

10.4 Conditions to avoid: No data available.

10.5 Incompatible materials : Strong oxidizing agents

10.6 Hazardous decomposition products : Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas

10.7 Other decomposition products: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute Toxicity: LD50 Oral - Rat - 295 mg/kg

Skin corrosion/irritation: Causes skin burns.

Serious eye damage/irritation: Severe eye irritation

Respiratory or skin sensitization: No data available

Germ cell mutagenicity:

Hamster

Embryo

Sister chromatid exchange

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.

Reproductive toxicity: No data available

STOT-single exposure: No data available

STOT-repeated exposure: No data available

Aspiration hazard: No data available

Additional Information

RTECS: BO717500053752

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity: No data available

Fish: LC50 - *Lepomis macrochirus* - 1.4 mg/l - 96.0 h .

Toxicity to daphnia and other aquatic invertebrates:

EC50 - *Daphnia magna* (Water flea) - 0.22 mg/l - 48 h

Algae: IC50 - *Pseudokirchneriella subcapitata* (green algae) - 0.12 mg/l - 72h

Bacteria: **Bacteria - 35.7 mg/l - 3 h**

12.2 Persistence and degradability:

Bio accumulative :

Result: 0 % - According to the results of tests of biodegradability this product is not readily biodegradable.

12.3 Bioaccumulative potential : No data available

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB assessment

PBT/vPBT: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects: Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product:

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 2923 IMDG: 2923 IATA: 2923

14.2 UN proper shipping name

ADR/RID: CORROSIVE SOLID, TOXIC, N.O.S. (Benzethonium chloride)

IMDG: CORROSIVE SOLID, TOXIC, N.O.S. (Benzethonium chloride)

IATA: Corrosive solid, toxic, n.o.s. (Benzethonium chloride)

14.3 Transport hazard class(es)

ADR/RID: 8 (6.1) IMDG: 8 (6.1) IATA: 8 (6.1)

14.4 Packaging group

ADR/RID - III

IMDG/IMO - III

ICAO/IATA - III

14.5 Environmental hazards

ADR/RID: no

Marine pollutant –NO

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation

15.2 Chemical safety assessment:

For this product a chemical safety assessment was not carried out

15.3 Other information:

Toxic if swallowed.

Causes severe skin burns and eye damage.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

SECTION 16: Other information

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

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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