

## **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](http://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:** C<sub>27</sub>H<sub>42</sub>ClNO<sub>2</sub>

**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<sub>x</sub>), 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 (NOx), 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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