

## SAFETY DATA SHEET

Preparation Date: 7/10/2014

Revision Date: 2/15/2018

Revision Number: G2

### 1. IDENTIFICATION

**Product identifier**

**Product code:** BE129  
**Product Name:** BENZETHONIUM CHLORIDE, USP

**Other means of identification**

**Synonyms:** N,N-Dimethyl-N[2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl]benzenemethanaminium chloride;  
 Benzyl dimethyl[2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl]-, chloride;  
 Diisobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride;  
 p-tert-Octylphenoxyethoxyethyl dimethyl benzyl ammonium chloride;  
 Antiseptol;  
 BZT;  
 Diapp;  
 Disilyn;  
 Hymaine;  
 Phemeride;  
 Phemerol;  
 Phemerol Chloride;  
 Phemithyn;  
 Polymine D;  
 Quatrachlor;  
 Solamin;  
 Solamine

**CAS #:** 121-54-0  
**RTECS #** BO7175000  
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** No information available.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>  
**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)


Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1

### Label elements

**Danger**

**Hazard statements**  
Harmful if swallowed  
Causes severe skin burns and eye damage



### Hazards not otherwise classified (HNOC)

Not Applicable

### Other hazards

Not available

### **Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Do not breathe dust/fume/gas/mist/vapors/spray  
Wear protective gloves/protective clothing/eye protection/face protection

### **Precautionary Statements - Response**

*Immediately call a POISON CENTER or doctor/physician*  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
Wash contaminated clothing before reuse  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
Rinse mouth  
Do NOT induce vomiting

### **Precautionary Statements - Storage**

Store locked up

### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Benzethonium Chloride	121-54-0	100

### 4. FIRST AID MEASURES

#### First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.
- Skin Contact:** Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician immediately.
- Eye Contact:** Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.
- Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

#### Most important symptoms and effects, both acute and delayed

- Symptoms**
- Severe skin and eye irritation or burns
  - Causes digestive (gastrointestinal) tract irritation
  - May cause gastrointestinal (digestive) tract burns
  - May cause nausea and vomiting
  - May cause central nervous system effects
  - Convulsions
  - Somnolence

#### Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

#### Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

### 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

- Suitable Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>). Dry chemical. Water spray mist or foam.
- Unsuitable Extinguishing Media:** No information available.

## Specific hazards arising from the chemical

<b>Hazardous Combustion Products:</b>	Carbon Monoxide, Carbon Dioxide. Nitrogen Oxides. Hydrogen Chloride Gas.
<b>Specific hazards:</b>	May be combustible at high temperatures.
<b><u>Special Protective Actions for Firefighters</u></b>	
<b>Specific Methods:</b>	No information available.
<b>Special Protective Equipment for Firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions, protective equipment and emergency procedures**

<b>Personal Precautions:</b>	Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Avoid contact with skin, eyes and clothing.
<b><u>Environmental precautions</u></b>	Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

### **Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.
<b>Methods for cleaning up</b>	Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

#### **Technical Measures/Precautions:**

Use only in area provided with appropriate exhaust ventilation. Avoid dust formation. All equipment used when handling the product must be grounded. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapors/dust. Handle in accordance with good industrial hygiene and safety practice.

### **Conditions for safe storage, including any incompatibilities**

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Protect from light. Sensitive to light. Store in light-resistant containers.

#### **Incompatible Materials:**

Oxidizing agents  
Organic materials

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### National occupational exposure limits

##### United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Benzethonium Chloride	121-54-0	None	None	None	None

##### Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Benzethonium Chloride	121-54-0	None	None	None	None

##### Australia and Mexico

Components	CAS-No.	Australia	Mexico
Benzethonium Chloride	121-54-0	None	None

### Appropriate engineering controls

#### Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

**Eye protection:** Face-shield

**Skin and body protection:** Chemical resistant protective suit  
Gloves  
Boots

**Respiratory protection:** Wear respirator with dust filter.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**  
Solid

**Appearance:**  
Crystalline powder. Powder.

**Color:**  
White. Off-white.

**Odor:**  
Mild.

**Taste**  
Bitter.

**Formula:**  
C27-H42-Cl-N-O2

**Molecular/Formula weight:**  
448.08

**Flammability:**  
No information available

**Flashpoint (°C/°F):**  
No information available.

**Flash Point Tested according to:** Autoignition Temperature (°C/°F):

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Not available	No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Melting point/range(°C/°F):</b> 158-163 °C/316.4-325.4 °F	<b>Decomposition temperature(°C/°F):</b> No information available
<b>Boiling point/range(°C/°F):</b> No information available	<b>Bulk density:</b> 12.4 kg/m <sup>3</sup>	<b>Density (g/cm<sup>3</sup>):</b> No information available
<b>Specific gravity:</b> 1.1 @ 20 °C	<b>pH:</b> No information available	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> No information available	<b>Viscosity:</b> No information available
<b>Miscibility:</b> No information available	<b>Solubility:</b> Very soluble in water Slightly soluble in Ether Soluble in Acetone Soluble in hot alcohol Soluble in Chloroform	

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with oxidizing agents

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Avoid dust formation. Incompatible materials.

**Incompatible Materials:** Oxidizing agents  
Organic materials

**Hazardous decomposition products:** Carbon monoxide. Carbon dioxide. Hydrogen chloride gas. Nitrogen oxides (NO<sub>x</sub>).

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Principal Routes of Exposure:**  
Skin. Inhalation. Ingestion.

### Acute Toxicity

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## Component Information

Benzethonium Chloride	
CAS-No.	121-54-0

**LD50/oral/rat** = 295 mg/kg Oral LD50 Rat  
368 mg/kg  
**LD50/oral/mouse** = 338 mg/kg  
**LD50/dermal/rabbit** = No information available  
**LD50/dermal/rat** = No information available  
**LC50/inhalation/rat** = No information available  
**LC50/inhalation/mouse** = No information available  
**Other LD50 or LC50 information** = No information available

## Product Information

**LD50/oral/rat** =  
**VALUE- Acute Tox Oral** = 368 mg/kg

**LD50/oral/mouse** =  
**Value - Acute Tox Oral** = 338 mg/kg

**LD50/dermal/rabbit**  
**VALUE-Acute Tox Dermal** = No information available

**LD50/dermal/rat**  
**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**  
**VALUE-Vapor** = No information available  
**VALUE-Gas** = No information available  
**VALUE-Dust/Mist** = No information available

**LC50/Inhalation/mouse**  
**VALUE-Vapor** = No information available  
**VALUE - Gas** = No information available  
**VALUE - Dust/Mist** = No information available

## Symptoms

**Skin Contact:** Severe skin irritation. Causes skin burns.

**Eye Contact:** Severe eye irritation. Causes eye burns.

**Inhalation** May cause irritation of respiratory tract.

**Ingestion** Harmful if swallowed. May cause digestive (gastrointestinal) tract burns. May cause vomiting. May affect behavior/central nervous system (convulsions/seizures). May affect behavior/central nervous system (somnolence). May affect the kidneys. May affect respiration (respiratory depression).

**Aspiration hazard** No information available.

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Chronic Toxicity** Chronic exposure may cause dermatitis.

**Sensitization:** No information available.

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**Mutagenic Effects:** May affect genetic material

**Carcinogenic effects:** Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Benzethonium Chloride	121-54-0	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*IARC (International Agency for Research on Cancer)*

*NTP (National Toxicology Program)*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available

**Developmental Effects:** No information available

**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Target Organs:** Skin. Eyes. Central nervous system.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** Aquatic environment.

*Benzethonium Chloride - 121-54-0*

**Freshwater Fish Species Data:** 1.6 mg/l LC50 96 h Pimephales promelas  
1.4 mg/l LC50 96 h Lepomis macrochirus

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

**Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series	RCRA - K Series	RCRA - P Series	RCRA - U Series
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		Wastes	Wastes	Wastes	Wastes
Benzethonium Chloride	121-54-0	None	None	None	None

## 14. TRANSPORT INFORMATION

### DOT

**UN-No:** UN3261  
**Proper Shipping Name:** Corrosive solid, acidic, organic, n.o.s. (benzethonium chloride)  
**Hazard Class:** 8  
**Subsidiary Class:** No information available  
**Packing group:** III  
**Emergency Response Guide Number:** 154  
**Marine Pollutant:** No data available  
**DOT RQ (lbs):** No information available  
**Special Provisions:** IB8, IP3, T1, TP33  
**Symbol(s):** [DOT]: (G) - Identifies proper shipping names for which one or more technical names of the hazardous material must be entered in parentheses, in association with the basic description.  
**Description:** UN3261, Corrosive solid, acidic, organic, n.o.s. (Benzethonium Chloride), 8, III

### TDG (Canada)

**UN-No:** UN3261  
**Proper Shipping Name:** Corrosive solid, acidic, organic, n.o.s. (benzethonium chloride)  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant:** No Information available  
**Description:** UN3261, Corrosive solid, acidic, organic, n.o.s. (Benzethonium Chloride), 8, III

### ADR

**UN-No:** UN3261  
**Proper Shipping Name:** Corrosive solid, acidic, organic, n.o.s. (benzethonium chloride)  
**Hazard Class:** 8  
**Packing Group:** III  
**Subsidiary Risk:** No information available  
**Special Provisions:** 274  
**Description:** UN3261, Corrosive solid, acidic, organic, n.o.s. (Benzethonium Chloride), 8, III

### IMO / IMDG

**UN-No:** UN3261  
**Proper Shipping Name:** Corrosive solid, acidic, organic, n.o.s. (benzethonium chloride)  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant:** No information available  
**EMS:** F-A  
**Special Provisions:** 223, 274  
**Description:** UN3261, Corrosive solid, acidic, organic, n.o.s. (Benzethonium Chloride), 8, III

### RID

**UN-No:** UN3261  
**Proper Shipping Name:** Corrosive solid, acidic, organic, n.o.s. (benzethonium chloride)  
**Hazard Class:** 8  
**Subsidiary Risk:** 8  
**Packing Group:** III  
**Special Provisions:** 274  
**Description:** UN3261, Corrosive solid, acidic, organic, n.o.s. (Benzethonium Chloride), 8, III

**ICAO**

**UN-No:** UN3261  
**Proper Shipping Name:** Corrosive solid, acidic, organic, n.o.s. (benzethonium chloride)  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** UN3261, Corrosive solid, acidic, organic, n.o.s. (Benzethonium Chloride), 8, III  
**Special Provisions** A3

**IATA**

**UN-No:** UN3261  
**Proper Shipping Name:** Corrosive solid, acidic, organic, n.o.s. (benzethonium chloride)  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**ERG Code:** 8L  
**Special Provisions** No information available  
**Description:** UN3261, Corrosive solid, acidic, organic, n.o.s. (Benzethonium Chloride), 8, III

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Benzethonium Chloride</i>	121-54-0	Present	Present KE-11871	Present	Present (9)-849 (9)-252 (3)-2782	Present	Present	Present 204-479-9

**U.S. Regulations****California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.****Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Benzethonium Chloride	121-54-0	Not Listed	Not Listed	Not Listed	Not Listed

**CERCLA/SARA**

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
<i>Benzethonium Chloride</i>	121-54-0	None	None	None	None	None

**U.S. TSCA**

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules	TSCA 8(d) -Health and Safety Reporting

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		<b>(SNURS)</b>	
Benzethonium Chloride	121-54-0	Not Applicable	Not Applicable

## Canada

### WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: The WHMIS 2015 classification of this product has not been validated or reviewed yet.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

### WHMIS 1988 Hazard Class

E Corrosive material  
D1B Toxic materials

### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

### Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Benzethonium Chloride	121-54-0	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Benzethonium Chloride	121-54-0	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Benzethonium Chloride	121-54-0	Not listed

### EU Classification

#### EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Benzethonium Chloride	121-54-0	No information

#### EU - CLP (1272/2008)

### R-phrase(s)

R34 - Causes burns.  
R22 - Harmful if swallowed.

### S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S46 - If swallowed, seek medical advice immediately and show this container or label.  
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Benzethonium Chloride	121-54-0		No information	

**The product is classified in accordance with Annex VI to Directive 67/548/EEC**

### Indication of danger:

C - Corrosive.

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Xn - Harmful.



## 16. OTHER INFORMATION

**Preparation Date:** 7/10/2014  
**Revision Date:** 2/15/2018  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**