

Benzethonium-d₇ Chloride (benzyl-d₇)

Section 1. Chemical product and company identifications

Product code: D-8293

Chemical formula: C₂₇D₇H₃₅ClNO₂

CAS: N/A

CAS (unlabelled): 121-54-0

Synonyms: Phemerol chloride, (Diisobutylphenoxyethoxyethyl)dimethylbenzylammonium chloride

Supplier / Manufacturer:

C/D/N Isotopes Inc.

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TOXYSKAN HOTLINE: 1-855-780-0599


Section 2. Hazards identifications

GHS (Globally Harmonized System of Classification and Labelling of Chemicals):

GHS Classification:

- Acute toxicity, Oral (Category 3)
- Skin Corrosion (Category 1B)
- Serious eye damage (Category 1)

GHS Label elements:

- Pictograms: 

- Signal word: Danger

Hazards statement:

- H301 Toxic if swallowed.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.

Precautionary statement:

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- P330 Rinse mouth.
- P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up.
- P501 Dispose of contents/ container to an approved waste disposal plant.

Section 3. Composition and information on ingredients

<u>Name</u>	<u>CAS</u>	<u>Concentration %</u>
Benzethonium-d ₇ Chloride	N/A	> 98

Section 4. First aid measures

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

Skin contact: Wash off with soap and plenty of water. Consult a physician.

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

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Indication of immediate medical attention and special treatment needed, if necessary: No data available.

Most important symptoms and effects, both acute and delayed: Redness.

Section 5. Firefighting measures

Flammability of the product: Not flammable or combustible.

Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides, hydrogen chloride gas.

Firefighting media and instructions: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Section 6. Accidental release measures

Personal precautions: Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation. Avoid breathing dust.

Environmental precautions: Do not let product enter drains.

Methods for cleaning up: Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

Section 7. Handling and storage

Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation.

Storage: Store at room temperature. Adequate ventilation.

Section 8. Exposure Controls, Personal Protections

Engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.

Eyes: Safety glasses with side-shields conforming to NIOSH (US) or EN 166(EU).

Respiratory: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

Hands: Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Skin/body: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Section 9. Physical and chemical properties (unlabelled)

Molecular weight: 448.08 g/mol

Physical status: Solid

Color: White to off white

Odour: No data available

Density: No data available

Melting point: 162 – 164 °C (324 - 327 °F)

Boiling point: No data available

Vapour pressure: No data available

Vapour density: No data available

Partition coefficient (octanol/water): Log Pow: 1.08

Water solubility: 44.8 g/L

Lower explosion limit: No data available.

Upper explosion limit: No data available.

Auto-ignition temperature: No data available.

Flash point: No data available

Section 10. Stability and reactivity

Stability and reactivity: Stable under recommended storage conditions.

Incompatibility: Strong oxidizing agents.

Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides, hydrogen chloride gas.

Reactivity conditions: No data available.

Section 11. Toxicological information (unlabelled)

Toxicological data: Benzethonium Chloride

Information on ingredients:

Name	CAS	LD₅₀	LC₅₀
Benzethonium Chloride	121-54-0	Oral - Rat – 295 mg/kg Intraperitoneal - Rat – 16,500 µg/kg Oral - Mouse – 338 mg/kg	No data available

Potential acute effects

- **Eyes:** Causes severe eye burns and possible permanent eye damage.
- **Skin:** Causes skin irritation
- **Inhalation:** No data available.
- **Ingestion:** Toxic if swallowed

Potential chronic effects

- **Carcinogenic effects:** 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. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- **Mutagenic effects:** No data available.
- **Teratogenic effects:** No data available.
- **Medical conditions aggravated by overexposure:** No data available.

Section 12. Ecological information

Ecological data:

Name	Results	Species	Period
Benzethonium Chloride	0.22 mg/l EC50	Daphnia magna	48h
	1.15 mg/l LC50	Oncorhynchus mykiss	96h
	0.3 mg/l ErC50	Pseudokirchneriella subcapitata	72h

Effects on environment: No data available.

Mobility: No data available.

Environmental precautions: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Section 13. Disposal considerations

Waste disposal: Contact a licensed professional waste disposal service to dispose of this material.

Section 14. Transportation information

Classification DOT/IMDG/IATA label:

Shipping name: Corrosive Solid, Toxic, n.o.s. (benzethonium chloride)

UN number: UN2923

Class: 8 (6.1)

Packaging group: II

Additional information: None

Section 15. Regulatory information

UNITED STATES: NFPA classification



Health: 3
Flammable: 0
Reactivity: 0
Special conditions: None

Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous

U.S. Federal regulations:

California proposition 65 requirements : Not Listed
SARA section 313 (specific toxic chemical listings) : Not listed
CERCLA reportable quantity : Not listed
Sections 302-304 reportable quantity : Not listed
Community Right-to-Know (Sections 311 and 312) : Not Listed

Section 16. Additional information

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Elaborated by: Toxyscan Inc., 1-866-780-0599

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This safety data sheet has been prepared in accordance with the OSHA (USA), WHMIS (Canada) / GHS classification rules in effect at the time of writing.