

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product name:** BENZYLTHIURONIUM CHLORIDE

**CAS number:** 538-28-3

**EINECS number:** 208-688-6

**Synonyms:** S-BENZYLTHIOURONIUM CHLORIDE

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Use of substance / mixture:** PC21: Laboratory chemicals.

### 1.3. Details of the supplier of the safety data sheet

**Company name:** Elemental Microanalysis Ltd  
1 Hameldown Road Okehampton  
Okehampton  
Devon  
EX20 1UB  
United Kingdom

**Tel:** 44(0)183754446

**Fax:** 44(0)183754544

**Email:** [info@microanalysis.co.uk](mailto:info@microanalysis.co.uk)

### 1.4. Emergency telephone number

**Emergency tel:** +44 (0) 7990 767375  
(office hours only)

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** \* Acute Tox. 2: H300

**Most important adverse effects:** Fatal if swallowed.

### 2.2. Label elements

**Label elements:**

**Hazard statements:** \* H300: Fatal if swallowed.

**Hazard pictograms:** GHS06: Skull and crossbones



**Signal words:** Danger

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**Precautionary statements:** P264: Wash hands thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P330: Rinse mouth.  
P405: Store locked up.

### 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

BENZYLTHIURONIUM CHLORIDE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
208-688-6	538-28-3	-	Acute Tox. 2: H300	>99%

## Section 4: First aid measures

### 4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Consult a doctor.
- Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.
- Ingestion:** Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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

- Skin contact:** There may be mild irritation at the site of contact.
- Eye contact:** There may be irritation and redness.
- Ingestion:** There may be soreness and redness of the mouth and throat. Inhalation of fumes from the stomach may cause symptoms similar to direct inhalation.
- Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing. Drowsiness or mental confusion may occur. Convulsions may occur. There may be loss of consciousness.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

[cont...]

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**4.3. Indication of any immediate medical attention and special treatment needed**

**Immediate / special treatment:** Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**Section 5: Fire-fighting measures**

**5.1. Extinguishing media**

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

**5.2. Special hazards arising from the substance or mixture**

**Exposure hazards:** Toxic. In combustion emits toxic fumes.

**5.3. Advice for fire-fighters**

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

**Section 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust.

**6.2. Environmental precautions**

**Environmental precautions:** Do not discharge into drains or rivers. Alert the neighbourhood to the presence of fumes or gas.

**6.3. Methods and material for containment and cleaning up**

**Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

**6.4. Reference to other sections**

**Reference to other sections:** Refer to section 8 of SDS.

**Section 7: Handling and storage**

**7.1. Precautions for safe handling**

**Handling requirements:** Ensure there is exhaust ventilation of the area. Do not handle in a confined space. Wash hands after working with substance.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed.

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**7.3. Specific end use(s)**

**Specific end use(s):** No data available.

**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Workplace exposure limits:** No data available.

**DNEL/PNEC Values**

**DNEL / PNEC** No data available.

**8.2. Exposure controls**

**Engineering measures:** Ensure there is exhaust ventilation of the area.

**Respiratory protection:** Self-contained breathing apparatus must be used in handling. Particle filter class P3S (EN143).

**Hand protection:** Protective gloves. Nitrile gloves. Breakthrough time of the glove material > 8 hours.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

**Section 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**State:** Crystals

**Colour:** Colourless

**Odour:** Characteristic odour

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** No data available.

**Viscosity:** No data available.

**Boiling point/range°C:** No data available.

**Melting point/range°C:** 172-177

**Flammability limits %: lower:** No data available.

**upper:** No data available.

**Flash point°C:** No data available.

**Part.coeff. n-octanol/water:** No data available.

**Autoflammability°C:** No data available.

**Vapour pressure:** No data available.

**Relative density:** No data available.

**pH:** No data available.

**VOC g/l:** No data available.

**9.2. Other information**

**Other information:** No data available.

**Section 10: Stability and reactivity**

**10.1. Reactivity**

**Reactivity:** Stable under recommended transport or storage conditions.

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**10.2. Chemical stability**

**Chemical stability:** Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

**10.4. Conditions to avoid**

**Conditions to avoid:** Heat.

**10.5. Incompatible materials**

**Materials to avoid:** Strong oxidising agents. Strong acids.

**10.6. Hazardous decomposition products**

**Haz. decomp. products:** In combustion emits toxic fumes.

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

**Toxicity values:**

Route	Species	Test	Value	Units
ORAL	RAT	LD50	27	mg/kg

**Hazardous ingredients:**

**BENZYLTHIURONIUM CHLORIDE**

ORAL	RAT	LD50	27	mg/kg
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**Relevant hazards for product:**

Hazard	Route	Basis
Acute toxicity (ac. tox. 2)	ING	Hazardous: calculated

**Symptoms / routes of exposure**

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be soreness and redness of the mouth and throat. Inhalation of fumes from the stomach may cause symptoms similar to direct inhalation.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing. Drowsiness or mental confusion may occur. Convulsions may occur. There may be loss of consciousness.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

[cont...]

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**Section 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity values:** No data available.

**12.2. Persistence and degradability**

**Persistence and degradability:** Biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential:** No bioaccumulation potential.

**12.4. Mobility in soil**

**Mobility:** No data available.

**12.5. Results of PBT and vPvB assessment**

**PBT identification:** This product is not identified as a PBT/vPvB substance.

**12.6. Other adverse effects**

**Other adverse effects:** Negligible ecotoxicity.

**Section 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**Section 14: Transport information**

**14.1. UN number**

**UN number:** UN2811

**14.2. UN proper shipping name**

**Shipping name:** \* TOXIC SOLID, ORGANIC, N.O.S.  
(S-BENZYLTHIOURONIUM CHLORIDE)

**14.3. Transport hazard class(es)**

**Transport class:** 6.1

**14.4. Packing group**

**Packing group:** II

**14.5. Environmental hazards**

**Environmentally hazardous:** No

**Marine pollutant:** No

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**14.6. Special precautions for user**

**Special precautions:** No special precautions.

**Tunnel code:** D/E

**Transport category:** 2

**Section 15: Regulatory information**

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

**Specific regulations:** Not applicable.

**15.2. Chemical Safety Assessment**

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

**Section 16: Other information**

**Other information**

**Other information:** according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

This safety data sheet is prepared in accordance with Commission Regulation (EC) No 1272/2008.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H300: Fatal if swallowed.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.