

Safety Data Sheet

#10717982 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Benzyltrimethylammonium chloride	56-93-9	C10H16ClN	10	30 Jul 2026

SECTION 1

Identification

Product name	Benzyltrimethylammonium chloride
CAS number	56-93-9
Chemical formula	C10H16ClN
Molecular weight	185.69
SMILES	<chem>C[N+](C)(C)CC1=CC=CC=C1.[Cl-]</chem>
EC / EINECS number	200-300-3
Recommended use & restrictions	Research and development; not suitable for human consumption or veterinary purposes
Emergency telephone	0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

**DANGER**

CODE HAZARD STATEMENT

EUH070	Toxic by eye contact
H301 + H311	Toxic if swallowed or in contact with skin
H332	Harmful if inhaled
H341	Suspected of causing genetic defects
H411	Toxic to aquatic life with long lasting effects

CODE PRECAUTIONARY STATEMENT

P260	Do not breathe dust/fume/gas/mist/vapours/spray
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P302+P352	IF ON SKIN: Wash with soap and water
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Other hazards (e.g. PBT / vPvB, not classified)

Does not contain components considered to be persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).
Does not contain components considered to have endocrine-disrupting properties.
Does not meet PBT or vPvB criteria under REACH Annex XIII.

SECTION 3

Composition / information on ingredients

Purity / concentration	100% Benzyltrimethylammonium chloride (CAS: 56-93-9)
Impurities / stabilising additives	None

SECTION 4

First-aid measures

Inhalation	Remove person to fresh air; keep comfortable for breathing; administer oxygen if breathing stops; call POISON CENTER/doctor immediately.
Skin contact	Remove contaminated clothing; rinse skin with water; call POISON CENTER/doctor immediately.
Eye contact	Rinse eyes with water for at least 15 minutes; seek medical attention.
Ingestion	Give water (max 2 glasses); seek medical advice immediately; induce vomiting only if conscious and awake; never force fluids on unconscious person.
Symptoms / effects & medical attention	Difficulty breathing, headache, exhaustion, weakness, severe abdominal pain, internal injury, severe eye irritation, unconsciousness (possible death)

SECTION 5

Fire-fighting measures

Suitable extinguishing media	Foam, carbon dioxide, dry powder, water fog; avoid water jet.
Unsuitable extinguishing media	Water jet (spreads fire)
Special hazards	Toxic; thermal decomposition releases carbon oxides, nitrous gases, hydrogen chloride.
Advice for firefighters	Avoid breathing fumes; evacuate area; cool containers with water spray; prevent water pollution; notify authorities if risk of contamination.

SECTION 6

Accidental release measures

Personal precautions & PPE	Do not touch spilled material; avoid inhalation/dust contact; provide ventilation; use PPE (Section 8).
Environmental precautions	Avoid discharge to aquatic environments; prevent runoff into sewers/water sources; dike for water control.
Containment & clean-up methods	Absorb spillage with a suitable absorbent material.

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

Storage temperature	Ambient
Precautions for safe handling	Obtain special instructions before use; avoid inhalation; wash skin after handling; use outdoors or in well-ventilated areas.
Conditions for safe storage (incompatibilities)	Store locked up; avoid release to environment. Hygroscopic. Store under inert gas.

SECTION 8

Exposure controls / personal protection

Occupational exposure limits (OEL / WEL) *Not applicable*

DNEC/PNEC data	DNEC: Fresh water- 0.01194 mg/L Fresh water sediment- 1.12 mg/kg sediment dw Water Intermittent- 0.1194 mg/L Microorganisms in sewage treatment- 10 mg/L Soil (Agriculture)- 0.217 mg/kg soil dw Marine water- 0.001194 mg/L Marine water sediment- 0.112 mg/kg sediment dw
Eye / face protection	Safety glasses
Skin / hand protection	Nitrile gloves Thickness: 0.11mm. Breakthrough time: 480mins.
Respiratory protection	Full-face respirator

SECTION 9

Physical & chemical properties

Density (g/mL)	1.133 g/mL DERIVED FROM: LITERATURE
Flash point	<i>Not applicable</i>
Acidity	Neutral DERIVED FROM: LITERATURE
Appearance / physical state	Solid DERIVED FROM: LITERATURE
Colour	White to off-white DERIVED FROM: LITERATURE
Odour	Characteristic DERIVED FROM: LITERATURE
Melting / freezing point	239-243°C DERIVED FROM: LITERATURE
Boiling point	Not specified DERIVED FROM: LITERATURE
Solubility (water)	Soluble in water. 800 g/l at 20 °C DERIVED FROM: LITERATURE
pH	6-8 DERIVED FROM: LITERATURE
Vapour pressure	< 0.0001 hPa at 20 °C DERIVED FROM: IN-HOUSE TEST
Partition coefficient (log Pow)	-2.17 DERIVED FROM: LITERATURE
Auto-ignition / decomposition temp	Not specified DERIVED FROM: LITERATURE

SECTION 10

Stability & reactivity

Chemical stability / reactivity	Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines! Violent reactions possible with: Oxidizing agents alkaline. Stable under the prescribed storage conditions
Conditions to avoid	Heat, open flames, incompatible materials (not specified)
Incompatible materials	Not specified
Hazardous decomposition products	See section 5

SECTION 11

Toxicological information

Acute toxicity (LD50 / LC50)	LD50 Oral - Rat - male and female - 125 - 250 mg/kg (External MSDS) LC50 Inhalation - Rat - male and female - 4 h - 1.14 mg/l - dust/mist (External MSDS) LD50 Dermal - Rabbit - male and female - 510 mg/kg (External MSDS)
Skin corrosion / irritation	Skin irritation (pain on contact)
Eye corrosion / irritation	Severe eye irritation (unconsciousness possible)
Respiratory / skin sensitisation	Not specified
Carcinogenicity / mutagenicity / reproductive	Suspected of causing genetic defects
STOT (single / repeated exposure)	Not specified
Aspiration hazard	Not specified
Endocrine disruptors	Not specified

SECTION 12

Ecological information

Aquatic toxicity	EC50: 6.94 mg/l (Daphnia pulex, 48 h)
Persistence & degradability	aerobic - Exposure time 28 d Result: 1 % - Not readily biodegradable (External MSDS).
Bioaccumulative potential	Not specified
Mobility in soil	Not specified
PBT / vPvB assessment	Not specified

SECTION 13

Disposal considerations

Waste treatment / disposal methods	Dispose of in accordance with local/national regulations
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SECTION 14

Transport information

UN number	UN2811
Proper shipping name	TOXIC SOLID, ORGANIC, N.O.S.
Class	6.1
Packing group	III
Transport category	2
Tunnel code	(E)
Packing instruction (ADR)	P002
Packing instruction (IMDG)	P002
Environmental hazards	Yes.
Special precautions for user	Handle in accordance with good industrial hygiene and safety practice



SECTION 15

Regulatory information

REACH code	Y110
UFI code	<i>Not applicable</i>
ECHA notification	<i>Not applicable</i>
Chemical safety assessment carried out?	<i>Not applicable</i>

SECTION 16

Other information

Revision notes / other information	Respiratory protection standard: EN 14387. Face/Eye protection: EN ISO 16321-1:2022
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