

ALADDIN SCIENTIFIC CORPORATION
14078 Meridian Parkway, Riverside, CA. 92518

SAFETY DATA SHEET

Version: v1
Revision Date: 2024-01-22
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Benzyltrimethylammonium chloride
Product Number : B103732
Brand : aladdin
CAS-No. : 56-93-9

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

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION
Address : 14078 Meridian Parkway,
Riverside, CA. 92518
Telephone : +1 (833) 552-7181
Fax : no data available

1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300
CHEMTREC®, Outside the USA :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Acute toxicity, oral (Class 3), H301
Acute toxicity, inhalation (Class 4), H332
Acute toxicity, percutaneous (Class 3), H311
Germ cell mutagenicity (Class 2), H341
Acute (short-term) aquatic hazard (Category 3), H402
Long term aquatic hazards (Category 3), H412

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

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H332	Harmful if inhaled
H341	Suspected of causing genetic defects
H412	Harmful to aquatic life with long lasting effects
H301+H311	Toxic if swallowed or in contact with skin
Precautionary statement(s)	
P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P391	Collect spillage.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P301+P312	IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.
P302+P352	IF ON SKIN: wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Additional precautionary phrases are located throughout the safety data sheet.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Benzyl trimethyl ammonium chloride TMBAC
Formula	: C10H16CIN
Molecular weight	: 185.69
CAS No.	: 56-93-9
EC-NO.	: 200-300-3

Component	Classification	Concentration
Benzyltrimethylammonium chloride		

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Component	Classification	Concentration
	no data available	98%

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

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

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. Continue rinsing eyes during transport to hospital.

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)

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

Water, Foam, Carbon dioxide (CO₂), Dry powder

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

In combustion toxic fumes may form.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

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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. Do not attempt to take action without suitable protective clothing. 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 or river. Alert the neighbourhood to the presence of fumes or gas.

6.3 Methods and materials for containment and cleaning up

Mix with sand or vermiculite. Sweep up and shovel. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

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. Wash hands thoroughly after handling. Ensure there is sufficient ventilation of the area. Normal measures for preventive fire protection. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated area. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Inert atmosphere, Room Temperature

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate

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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.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, 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

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	232-238°C
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	1.072
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

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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

Warning! When in contact with nitrite, nitrate, or nitrite, it is possible to release nitrosamines, which may cause violent reactions with them: oxidants

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

Carbon monoxide, Carbon dioxide, Hydrogen chloride, Nitrogen oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 oral - rats - males and females -125-250 mg/kg

Remarks: (ECHA)

LC50 inhalation - rats - males and females -4 hours -1.14 mg/l
(OECD Testing Guidelines 403)

LD50 Transcutaneous - Rabbit - Male and Female -510 mg/kg
(OECD Testing Guidelines 402)

Skin corrosion/irritation

Skin - Rabbit Result: Mild irritation -24 hours (OECD Testing Guidelines 404)

Serious eye damage/eye irritation

Eye Rabbit Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitisation

Local lamp node assay (LLNA) - mice Result: Negative (OECD Testing Guidelines 429)

Germ cell mutagenicity

Suspected of causing genetic defects. Test type: Ames test Testing system: Salmonella Typhimurium Metabolic

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activation: with or without metabolic activation effect Method: OECD Testing Guidelines 471 Result: Negative Test type: Mutability (mammalian cell test): Negative for chromosomal variation Testing system: Chinese hamster lung cells Metabolic activation: with or without metabolic activation effect Result: Positive results were obtained in some in vitro experiments. Remarks: (ECHA) Test type: In vitro mammalian cell gene mutation test Testing system: Chinese hamster ovarian cells Metabolic activation: with or without metabolic activation effect Method: OECD Testing Guidelines 476 Result: Negative Test type: Mutability (mammalian cell test): Micronucleus positive Species: Mice Cell type: Red blood cells (erythrocytes) Poisoning route: oral route Method: OECD Testing Guidelines 474 Result: Positive

Carcinogenicity

no data available

Reproductive toxicity

Suspected of causing genetic defects. Test type: Ames test Testing system: Salmonella Typhimurium Metabolic activation: with or without metabolic activation effect Method: OECD Testing Guidelines 471 Result: Negative Test type: Mutability (mammalian cell test): Negative for chromosomal variation Testing system: Chinese hamster lung cells Metabolic activation: with or without metabolic activation effect Result: Positive results were obtained in some in vitro experiments. Remarks: (ECHA) Test type: In vitro mammalian cell gene mutation test Testing system: Chinese hamster ovarian cells Metabolic activation: with or without metabolic activation effect Method: OECD Testing Guidelines 476 Result: Negative Test type: Mutability (mammalian cell test): Micronucleus positive Species: Mice Cell type: Red blood cells (erythrocytes) Poisoning route: oral route Method: OECD Testing Guidelines 474 Result: Positive

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

Registration of toxic effects of chemical substances: B08400000

To our knowledge, this chemical, physical, and toxic property has not been fully studied.

System impact:

After extensive absorption:

Drowsiness

dizziness

Euphoria

Excitement, spasms

headache

Possible damage:

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anaesthesia

Other information

Under specific circumstances, skin contact with nitrate or nitric acid can lead to the formation of ammonium nitrite, which has been proven to cause cancer in animal experiments

Further information:

Other hazards cannot be ruled out.

Operate in accordance with good industrial hygiene and safety practices.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50- *Oryzias latipes* ->1000 mg/l -48 hours
(OECD Testing Guidelines 203)

Toxicity to *Daphnia* and other aquatic invertebrates

Static test EC50- *Daphnia pulex* -11.94 mg/l -48 hours

Remarks: (ECHA)

Static toxicity test for bacteria EC50- Activated sludge ->1000 mg/l -3 hours
(OECD Testing Guidelines 209)

12.2 Persistence and degradability

Aerobic - Exposure time 28 days Result: 1% - not easily biodegradable. (OECD Test Guide 301C)

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

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Consult state, local or national regulations for proper disposal. Hand over to authorised disposal company as hazardous waste.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 2811

Packing group: III

Class: 6.1

Proper shipping name: Toxic solids,
organic, n.o.s.

Reportable Quantity(RQ): no data
available

Poison Inhalation Hazard: no data
available

Environmental Hazards: NO

IMDG

UN number: 2811

Packing group: III

EMS-No: no data available

Proper shipping name: Toxic solids, organic, n.o.s.

IATA

UN number: 2811

Packing group: III

Class: 6.1

Proper shipping name: Toxic solids, organic, n.o.s.

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16: Other information

Prepared By	Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: QualityAssurance@aladdinsci.com
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