



Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

BENZALKONIUM CHLORIDE
50% w/v
EXTRAPURE

PRODUCT CODE : B-3083
CAS No : 63449-41-2
FORMULA : not applicable
UN No : 3261

website : www.labotiq.net

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE



MSDS Number : 0454

Date : Nov 21, 2024

Version : 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product Name** : BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE
Synonyms : Alkyldimethylbenzylammonium chloride,
 Alkylbenzyltrimethylammonium chloride
CAS No. : 63449-41-2
HS Code : 3402 41 00
Molecular Weight : not applicable
Chemical Formula : not applicable
Product Code : B-3083
Brand : Labotiq
1.2 Manufacturer : Labotiq
Address : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
Website : www.labotiq.net
Email : labotiq.id@gmail.com
For information : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
Emergency number : +6281316894650
1.3 Application : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, (Category 4)	H302: Harmful if swallowed.
Acute toxicity, (Category 4)	H312: Harmful in contact with skin.
Skin corrosion, (Sub-category 1B)	H314: Causes severe skin burns and eye damage.
Serious eye damage, (Category 1)	H318: Causes serious eye damage.
Short-term (acute) aquatic hazard, (Category 1)	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, (Category 1)	H410: Very toxic to aquatic life with long lasting effects.

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H302 + H312

H314

H410

Harmful if swallowed or in contact with skin.

Causes severe skin burns and eye damage.

Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P260

Do not breathe dust.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE



MSDS Number : 0454

Date : Nov 21, 2024

Version : 1.0

P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Supplemental Hazard Statements	none
Reduced Labeling (<= 125 ml)	
Pictogram	



Signal Word	Danger
Hazard Statements	
H314	Causes severe skin burns and eye damage.
Precautionary Statements	
P260	Do not breathe dust.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements	none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : Alkyldimethylbenzylammonium chloride,

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE



MSDS Number : 0454

Date : Nov 21, 2024

Version : 1.0

Alkylbenzyltrimethylammonium chloride

Formula : not available

Molecular weight : not available

CAS-No. : 63449-41-2

EC-No. : 264-151-6

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
BENZALKONIUM CHLORIDE CAS-No. 63449-41-2 EC-No. 264-151-6 Index-No. 612-140-00-5	Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 1; H302, H312, H314, H318, H400 M-Factor - Aquatic Acute: 1	49.5 - 50.5
WATER (CAS-No.) 7732-18-5 (EC-No.) 231-791-2	-	50 - 50.5

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the 4labeling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE



MSDS Number : 0454

Date : Nov 21, 2024

Version : 1.0

Suitable extinguishing media

Water Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known. Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing

5.4 Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid inhalation of vapours/aerosols or dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with suitable equipment. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed.

Storage class

Storage class (TRGS 510): 8A: Combustible, corrosive hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE



MSDS Number : 0454

Date : Nov 21, 2024

Version : 1.0

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® L

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril®

Body Protection

protective clothing

Respiratory protection

required when dusts/vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK-P

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: Semi-solid melting to a liquid
	Colour: light yellow
Odour	No data available

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE



MSDS Number : 0454

Date : Nov 21, 2024

Version : 1.0

Odour Threshold	No data available
pH	No data available
Melting point/freezingpoint	No data available.
Initial boiling point and boiling range	No data available
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Density	No data available
Relative density	No data available
Water solubility	No data available
Partition coefficient: noctanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	Not classified as explosive
Oxidizing properties	none

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Violent reactions possible with:
strong oxidising agents

10.4 Conditions to avoid

Avoid moisture.
no information available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE

MSDS Number : 0454

Date : Nov 21, 2024

Version : 1.0

11.1 Information on toxicological effects**Acute toxicity**

Acute toxicity estimate Oral - 500,1 mg/kg (Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Inhalation: No data available

LD50 Dermal - Rat - 1.420 mg/kg

Remarks: Behavioral: Somnolence (general depressed activity). Blood: Hemorrhage. (RTECS)

Acute toxicity estimate Dermal - 1.420 mg/kg (ATE value derived from LD50/LC50 value)

Skin corrosion/irritation

Remarks: Causes skin burns.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Remarks: Causes serious eye damage.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Remarks: (Lit.)

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available.

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. - Central nervous system, Kidney, Blood

Aspiration hazard

No data available

Additional Information

Endocrine disrupting properties

Product: Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

RTECS: B03151000

Cough, Shortness of breath, Headache, Nausea, Vomiting To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE

MSDS Number : 0454

Date : Nov 21, 2024

Version : 1.0

12.1 Toxicity

Toxicity to fish

LC50 - Lepomis macrochirus - 0,31 mg/l - 96,0 h

Remarks: (ECOTOX Database) (Regulation (EC) No 1272/2008, Annex VI)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 0,13 mg/l - 48 h Remarks: (ECOTOX Database)

Toxicity to algae

static test EC10 - Skeletonema costatum (marine diatom) - 0,0294 mg/l - 96 h Remarks: (ECHA)

Toxicity to bacteria (Chronic toxicity)

semi-static test NOEC - Pimephales promelas (fathead minnow) - 1,33 mg/l - 7 d Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)

semi-static test NOEC - Ceriodaphnia dubia (water flea) - 0,0224 mg/l - 7 d

12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Biodegradability

Result: - According to the results of tests of biodegradability this product is not readily biodegradable.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

12.6 Other adverse effects

No data available

Product:

Endocrine disrupting properties

Product: Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

No data available

SECTION 14: Transport information**14.1 UN number**

ADR/RID: 3261

IMDG: 3261

IATA: 3261

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE



MSDS Number : 0454

Date : Nov 21, 2024

Version : 1.0

14.2 UN proper shipping name

ADR/RID: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (alkyl dimethylbenzyl ammonium chloride)

IMDG: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (alkyl dimethylbenzyl ammonium chloride)

IATA: Corrosive solid, acidic, organic, n.o.s. (alkyl dimethylbenzyl ammonium chloride)

14.3 Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA : 8

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: no

14.6 Special precautions for user

Further information

No data available

SECTION 15: Regulatory information

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

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

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1 ENVIRONMENTAL HAZARDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects

NFPA Rating

Health hazard: 3

Fire Hazard: 1

Reactivity Hazard: 0

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
BENZALKONIUM CHLORIDE 50% w/v EXTRAPURE



MSDS Number : 0454

Date : Nov 21, 2024

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Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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