

Safety Data Sheet

According to Regulation (EC) No.1907/2006 (REACH)

Date of issue: 09.08.2007
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1. Identification of the substance/preparation and of the company/undertaking

Identification of the product

Catalogue No.: 817032
Product name: Benzalkonium chloride Ph Eur

Use of the substance/preparation

Chemical for synthesis
Pharmaceutical production and analysis

Company/undertaking identification

Company: Merck Schuchardt OHG * 85662 Hohenbrunn * Germany *
Tel: +49 8102/802-0
Emergency telephone No.: Please contact the regional Merck representation
in your country.
Contact for information: EHSQ/EHS-PI * e-mail:prodsafe@merck.de

2. Hazards identification

Harmful in contact with skin and if swallowed. Causes burns. Very toxic to aquatic organisms.

3. Composition/information on ingredients

Mixture of organic compounds.

Synonyms

Alkylbenzyltrimethylammonium chloride

EC-Index-No.: 612-140-00-5

Hazardous ingredients:

Name according to EC Directives:

CAS-No.	EC No.	EC-Index-No.	Classification	Content:
benzododecinium chloride				
139-07-1	205-351-5	612-140-00-5	Xn; R21/22 C; R34 N; R50	≥ 50 %
miristalkonium chloride				
139-08-2	205-352-0	612-140-00-5	Xn; R21/22 C; R34 N; R50	≥ 25 - < 50 %

(Full text of R-Phrases in heading 16)

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4. First aid measures

After inhalation: fresh air. Call in physician.
After skin contact: wash off with plenty of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing.
After eye contact: rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call in ophthalmologist.
After swallowing: make victim drink plenty of water (if necessary several litres), avoid vomiting (risk of perforation!). Immediately call in physician. Do not attempt to neutralize.

5. Fire-fighting measures

Suitable extinguishing media:
Water, CO₂, foam, powder.

Special risks:
Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. hydrochloric acid, nitrogen oxides.

Special protective equipment for fire fighting:
Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

Other information:
Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental release measures

Person-related precautionary measures:
Avoid substance contact. Avoid inhalation of vapours/aerosols or dusts. Ensure supply of fresh air in enclosed rooms.

Environmental-protection measures:
Do not allow to enter sewerage system.

Procedures for cleaning / absorption:
Take up with suitable equipment. Forward for disposal.

7. Handling and storage

Handling:

Store tightly closed in a cool dry place.
No further requirements.

Storage:

Tightly closed. Dry. At +15°C to +25°C.

8. Exposure controls/personal protection

Personal protective equipment:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

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Respiratory protection: required when dusts/vapours/aerosols are generated. Filter A-(P2).

Eye protection: required

Hand protection: In full contact:
Glove material: nitrile rubber
Layer thickness: 0.40 mm
Breakthrough time: > 480 Min.

In splash contact:
Glove material: nitrile rubber
Layer thickness: 0.40 mm
Breakthrough time: > 480 Min.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example KCL 730 Camatril® -Velours (full contact), 730 Camatril® -Velours (splash contact). The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Other protective equipment: Suitable protective clothing.

Industrial hygiene:
Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

9. Physical and chemical properties

Form:		paste
Colour:		white
Odour:		
pH value		
at 10-20 g/l H ₂ O		5-6
Melting point		40 °C
Boiling point		not available
Ignition temperature		not available
Flash point		not available
Explosion limits	lower	not available
	upper	not available
Density	(20 °C)	0.98 g/cm ³
Solubility in		
water	(20 °C)	soluble
Thermal decomposition		150-300 °C

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10. Stability and reactivity

Conditions to be avoided

Strong heating (decomposition).

Substances to be avoided

Violent reactions possible with: strong oxidizing agents.

Hazardous decomposition products

no information available

Further information

Forms explosive mixtures with air on intense heating.

11. Toxicological information

Acute toxicity

Quantitative data on the toxicity of this product are not available.

Further toxicological information

Property that must be anticipated on the basis from the components of the preparation:

After inhalation: burns of mucous membranes, coughing, dyspnoea.

After skin contact: absorption, burns. Possible damages: allergic reactions.

After eye contact: burns, Risk of blindness!

After swallowing: burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach. nausea, bloody vomiting, confusion, shock, unconsciousness.

Other notes:

Sensitization possible in predisposed persons.

Further data

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Ecotoxic effects:

Quantitative data on the ecological effect of this product are not available.

Biological effects:

Highly toxic for aquatic organisms.

Further ecologic data:

Do not allow to enter waters, waste water, or soil!

13. Disposal considerations

Product:

Chemicals must be disposed of in compliance with the respective national regulations. Under www.retrologistik.de you will find country- and substance-specific information as well as contact partners.

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Packaging:

Merck product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Under www.retrologistik.de you will find special information on the respective national conditions as well as contact partners.

14. Transport information

Road & Rail ADR, RID

UN 1759 AETZENDER FESTER STOFF, N.A.G. (BENZALKONIUMCHLORID), 8, II

Inland waterway ADN, ADNR not tested

Sea IMDG-Code

UN 1759 CORROSIVE SOLID, N.O.S. (BENZALKONIUMCHLORIDE), 8, II ,
Segregation Group: 1 (Acids)

Ems F-A S-B

Air CAO, PAX

UN 1759 CORROSIVE SOLID, N.O.S. (BENZALKONIUMCHLORIDE), 8, II

The transport regulations are cited according to international regulations and in the form applicable in Germany . Possible national deviations in other countries are not considered.

15. Regulatory information

Labelling according to EC Directives

Symbol:	C	Corrosive
	N	Dangerous for the environment
R-phrases:	21/22-34-50	Harmful in contact with skin and if swallowed. Causes burns. Very toxic to aquatic organisms.
S-phrases:	36/37/39-45-61	Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/Safety data sheets.

Reduced labelling (1999/45/EC, Art.10,4)

Symbol:	C	Corrosive
	N	Dangerous for the environment
R-phrases:	21/22-34	Harmful in contact with skin and if swallowed. Causes burns.
S-phrases:	36/37/39-45	Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16. Other information

Text of any R phrases referred to under heading 2:

21/22	Harmful in contact with skin and if swallowed.
34	Causes burns.
50	Very toxic to aquatic organisms.

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Reason for alteration

Chapter 7: handling.

General update.

Regional representation:

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.