

SAFETY DATA SHEET



Product name: Benzalkonium Chloride 80% Solution
(BKC 80%)

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Revision Date: 2006-09-01

Print date: 2006-09-01

SDS-ID: GB/IRL/5.0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product name: Benzalkonium Chloride 80% Solution
(BKC 80%)

Application: Preservative and active ingredient in the
cosmetic and pharmaceutical industries.

Container size: 200kg

Supplier: FeF Chemicals A/S
Københavnsvej 216
DK-4600 Køge

Tel.: +45 56 67 10 00

2. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains: quaternary ammonium compounds, organic solvent and water.

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
30-60	139-08-2	205-352-0	Benzyl(tetradecyl)dimethyl- ammonium chloride	C;R34 Xn;R21/22 N;R50	
30-60	139-07-1	205-351-5	Benzyl(dodecyl)dimethyl- ammonium chloride	C;R34 Xn;R21/22 N;R50	
5-<15	67-63-0	200-661-7	Propan-2-ol	F;R11 Xi;R36 R67	
5-10	122-18-9	204-526-3	Benzyl(hexadecyl)dimethyl- ammonium chloride	C;R34 Xn;R21/22 N;R50	

3. HAZARDS IDENTIFICATION

The product is classified: R10 Xn; R21/22 C; R34 N; R50

Physical and Chemical Hazards: The product is flammable, and heating may generate vapours which may form explosive vapour/air mixtures.

Human health: Harmful in contact with skin and if swallowed. Corrosive to skin and eyes. Repeated or prolonged contact with skin may cause allergic reactions in sensitive individuals.

Environment: Very toxic to aquatic organisms.

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4. FIRST-AID MEASURES

Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Seek medical advice.

Inhalation: Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring these instructions.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water. In case of eczema or other skin disorders: Seek medical attention and bring these instructions.

Eye contact: Immediately flush with plenty of water. Remove any contact lenses and open eyes wide apart. Call an ambulance and continue flushing during transportation to hospital. Bring these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Call an ambulance. Bring along these instructions. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Specific hazards: During fire, gases hazardous to health may be formed. Water used for fire extinguishing, which has been in contact with the product, may be corrosive.

Protective equipment for fire-fighters: Use air-supplied respirator during fire fighting. Severe corrosive hazard. Wear chemical protection suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Look out! The product is corrosive. Avoid smoking and use of open fire. Avoid inhalation of spray mist and contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet. For personal protection, see section 8.

Environmental precautions: Do not discharge into drains, water courses or onto the ground.

Methods for cleaning up: Large spillages: Dam and absorb spillages with sand, earth or other non-combustible material.
Small spillages: Absorb spillage with non-combustible, absorbent material.
Flush contaminated area with plenty of water.
For waste disposal, see section 13.

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7. HANDLING AND STORAGE

Safe handling advice: Observe good chemical hygiene practices. Avoid inhalation of spray mists and contact with skin and eyes. Immediately change drenched clothing.

Technical measures: Avoid smoking and use of open fire. Keep the workplace clean. Use work methods which minimise aerosol production.

Technical precautions: Provide easy access to water supply and eye wash facilities.

Technical measures for safe storage: Follow rules for flammable liquids.

Storage conditions: Store in closed original container at temperatures between 15°C and 25°C. Store in tightly closed original container in a well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours. An eye wash bottle must be available at the work site.

<u>Chemical name:</u>	<u>Exposure limits:</u>	<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
Propan-2-ol	400 ppm 500 ppm	999 mg/m ³ 1250 mg/m ³	TWA STEL	- 15min EH40

Personal protection: Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment

Respiratory equipment: Risk of inhalation of spray mist: Use respiratory equipment with combination filter, type A2/P2. The use of filtering respirators should be limited to max. 3 hours per day.

Hand protection: Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Nitrile gloves are recommended. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection: Wear goggles/face shield.

Skin protection: Wear apron or protective clothing in case of splashes.

Hygiene measures: Wash hands after contact.

Environmental Exposure Controls: Not available.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: clear liquid
Odour: Not available
pH: 5-6 (10 g/l)
Boiling point: not available
Flash point: 43,3°C
Explosion limits: not relevant
Relative density: 0,95 (20 °C)
Solubility: Miscible with: Water and lower alcohols.

10. STABILITY AND REACTIVITY

Stability: Stable under normal temperature conditions.

Conditions/
materials to avoid: Avoid exposing to heat and contact with strong oxidising substances.

Hazardous
decomposition products: If heated to more than 150°C, the following substance(s) will be released: Benzyl chloride and Methyl chloride.

11. TOXICOLOGICAL INFORMATION

Inhalation: In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea.

Inhalation of aerosols: Burning pain. Increased flow of saliva (froth at the mouth) and vomiting, sometimes with bloody vomit. Restlessness, confusion and weakness, laboured breathing, bluish colouring of skin and mucous membranes, shock and unconsciousness.

Skin contact: Harmful in contact with skin. Causes burns. Repeated or prolonged contact with skin may cause allergic reactions in sensitive individuals.

Eye contact: Corrosive. Immediate first aid is necessary. Risk of serious damage to eyes.

Ingestion: Harmful if swallowed. Causes burns. Burning pain. Increased flow of saliva (froth at the mouth) and vomiting, sometimes with bloody vomit. Restlessness, confusion and weakness, laboured breathing, bluish colouring of skin and mucous membranes, shock and unconsciousness.

Specific effects: May cause sensitisation.

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12. ECOLOGICAL INFORMATION

Mobility: The product is water soluble and may spread in water systems. The product contains organic solvents which will evaporate easily from all surfaces.

Degradability: BKC 80% < 20ppm: The product is expected to be biodegradable.

Ecotoxicity: Very toxic to aquatic organisms.

Bioaccumulative potential: Bioaccumulation: Is not expected to be bioaccumulable.

Other adverse effects: The product contains a substance which has a photochemical ozone creation potential.

13. DISPOSAL CONSIDERATIONS

Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste. Rags and the like, moistened with flammable liquids, must be discarded into designated fireproof bucket.

Waste from residues: EWC-code:
07 05 07
07 06 07

14. TRANSPORT INFORMATION

UN-number: 2924

Proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S
(Isopropyl alcohol, Benzalkonium chloride)

Sea (IMDG):

Class: 3

PG: III

MP: Yes

EmS: F-E , S-C

MFAG: 1

Inland waterways: To be handled locally.

Air (ICAO/IATA):

Class: 3

PG: III

Land (RID/ADR):

Class: 3

Packing group: III

Primary risk label: 3

Subsidiary risk label: 8

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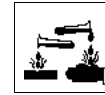
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15. REGULATORY INFORMATION

Labelling:

Contains: Benzyl(dodecyl)dimethyl-ammonium chloride
Benzyl(tetradecyl)dimethyl-ammonium chloride
Benzyl(hexadecyl)dimethyl-ammonium chloride



Corrosive



Dangerous for
the
environment

R10 Flammable.
R21/22 Harmful in contact with skin and if swallowed.
R34 Causes burns.
R50 Very toxic to aquatic organisms.

S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S60 This material and its container must be disposed of as hazardous waste.
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.

National regulation:

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (S.I 2002 No. 1689) with amendments.
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.
EH40/2005, Workplace exposure limits 2005
The Management of Health and Safety at Work Regulations 1999 (SI 1999 No. 3242).
The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).

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16. OTHER INFORMATION

For restrictions on use see section 15.

The following sections contain revisions or new statements: 8, 10, 11.

Wording of Risk Phrases:

R10	Flammable.
R11	Highly flammable.
R21/22	Harmful in contact with skin and if swallowed.
R34	Causes burns.
R36	Irritating to eyes.
R50	Very toxic to aquatic organisms.
R67	Vapours may cause drowsiness and dizziness.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI Group, DTC Health and Environment, Kogle Allé 2, DK-2970 Hørsholm, Denmark. www.dtc.dk