

# SAFETY DATA SHEET



Product name: Strong Cetrimide Solution 40% BP w/Isopropyl alcohol  
(Strong Cetrimide BP, Strong Cetrimide BP Pharma)

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Revision Date: 2009-09-08

Print date: 2009-09-08

SDS-ID: GB/9.0

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

Product name: Strong Cetrimide Solution 40% BP  
w/Isopropyl alcohol (Strong Cetrimide BP,  
Strong Cetrimide BP Pharma)

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

Container size: 200kg  
1000kg

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

Tel.: +45 56 67 10 00

Responsible for safety data sheet authoring:  
SDS\_info@dhigroup.com

## 2. HAZARDS IDENTIFICATION

The product is classified: Xn;R20/22 Xi;R37/38-R41 N;R50

Physical and Chemical Hazards: This product is not flammable.  
Please note that although this material has a flash-point below 55°C, it does not maintain  
combustion.

Human health: Harmful by inhalation and if swallowed. Risk of serious damage to eyes. Irritating to  
respiratory system and skin. Repeated or prolonged contact with skin may cause allergic  
reactions in sensitive individuals.

Environment: Very toxic to aquatic organisms.

## 3. 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>
32	1119-97-7	214-291-9	Trimethyltetradecylammonium bromide	Xn;R20/22 Xi;R37/38-R41 N;R50	
8	1119-94-4	214-290-3	Dodecyltrimethylammonium bromide	C;R34 Xn;R22 N;R50	
8	67-63-0	200-661-7	Propan-2-ol	F;R11 Xi;R36 R67	

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## 4. FIRST-AID MEASURES

- 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 for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Bring these instructions.
- Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.

## 5. FIRE-FIGHTING MEASURES

- Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.
- Specific hazards: During fire, gases hazardous to health may be formed. (HBr, NOx)
- Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

## 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions: Avoid inhalation of vapours and 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: Small spillages: Absorb spillage with suitable absorbent material.  
Large spillages: Dam and absorb spillages with sand, earth or other non-combustible 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 vapours and spray mist and contact with skin and eyes. Change contaminated clothing.

Technical measures: 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 tightly closed original container in a well-ventilated place. Do not store near heat sources or expose to excessive temperatures.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapours and spray mist. 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	999 mg/m <sup>3</sup>	TWA	-	EH40
	500 ppm	1250 mg/m <sup>3</sup>	STEL	15min	

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: In case of inadequate ventilation use suitable respirator. It is recommended to use respiratory equipment with combination filter, type A2/P3. The use of filtering respirators should be limited to max. 3 hours per day.

Hand protection: Wear protective gloves. Nitrile gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. 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 suitable protective clothing.

Hygiene measures: Wash hands after contact.

Environmental Exposure Controls: Not available.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear and colourless to slightly yellow viscous solution.  
Odour: alcohol  
pH: 5-7,5 (100 g/l)  
Boiling point: not available  
Decomposition temperature: not available  
Flash point: 48°C  
Explosion limits: not relevant  
Relative density: approx. 1,0  
Solubility: Miscible with: Water and lower alcohols.  
Other data: Please note that although this material has a flash-point below 55°C, it does not maintain combustion.

## 10. STABILITY AND REACTIVITY

Stability: Stable under normal temperature conditions.  
Conditions/ materials to avoid: Heating. Strong oxidising substances.  
Hazardous decomposition products: If heated to more than 200°C, the following substance(s) will be released: Alkyl bromides. Amines.

## 11. TOXICOLOGICAL INFORMATION

Inhalation: Harmful by inhalation. Irritating to respiratory system. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea.  
Skin contact: Irritating to skin. Repeated or prolonged contact with skin may cause allergic reactions in sensitive individuals.  
Eye contact: Risk of serious damage to eyes. Immediate first aid is necessary.  
Ingestion: Harmful if swallowed. Causes stomach pain, vomiting, diarrhoea and convulsions.  
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: The product is expected to be biodegradable.  
(quaternary ammonium compounds, FeF Chemicals A/S, 1993)

Ecotoxicity: Very toxic to aquatic organisms.

Trimethyltetradecylammonium bromide ( $0,001 < EC_{50} \leq 0,01$  mg/l ):  
LC<sub>50</sub> (Danio rerio, 96 hours): 1,81 mg/l (OECD Test Guideline 203)  
EC<sub>50</sub> (Daphnia magna, 48 hours): 0,022 mg/l (OECD Test Guideline 202)  
IC<sub>50</sub> (Pseudokirchneriella subcapitata, 72 hours): 0,0054 mg/l (OECD Test Guideline 201)

Dodecyltrimethylammonium bromide (Expected LC/EC<sub>50</sub> value:  $0,001 < EC_{50} \leq 0,01$  mg/l)

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.

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

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## 14. TRANSPORT INFORMATION

**UN-number:** 3082

**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Trimethyltetradecylammonium bromide)

Other information:  
The product is classified: Environmentally Hazardous substance

### Sea (IMDG):

**Class:** 9  
**PG:** III  
**MP:** Yes  
**EmS:** F-A , S-F  
**MFAG:** 1

Inland waterways: To be handled locally.

### Air (ICAO/IATA):

**Class:** 9  
**PG:** III

### Land (RID/ADR):

**Class:** 9  
**Packing group:** III  
**Primary risk label:** 9  
**Subsidiary risk label:** -

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## 15. REGULATORY INFORMATION

### Labelling:

Contains: Trimethyltetradecylammonium  
bromide



Harmful



Dangerous for  
the  
environment

- R20/22 Harmful by inhalation and if swallowed.  
R37/38 Irritating to respiratory system and skin.  
R41 Risk of serious damage to eyes.  
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.  
S39 Wear eye/face protection.  
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.

### National regulation:

Statutory Instruments 2008 No. 2852 - The REACH Enforcement Regulations 2008.  
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).  
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.  
EH40/2005, Workplace exposure limits 2005, with amendments  
The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).

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## 16. OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 3,12,14,15,16

Classification according to Regulation (EC) No. 1272/2008:

Acute Tox. 4;H332 - Acute Tox. 4;H302 - STOT SE 3;H335 - Skin Irrit. 2;H315 - Eye Dam. 1;H318 - Aquatic Acute 1;H400

Wording of Risk Phrases:

R11	Highly flammable.
R20/22	Harmful by inhalation and if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R36	Irritating to eyes.
R37/38	Irritating to respiratory system and skin.
R41	Risk of serious damage to eyes.
R50	Very toxic to aquatic organisms.
R67	Vapours may cause drowsiness and dizziness.

H332	Harmful if inhaled.
H302	Harmful if swallowed.
H335	May cause respiratory irritation.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.

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 - Centre for Environment and Toxicology, Artvej 5, DK-2970 Hørsholm, Denmark. [www.dhigroup.com](http://www.dhigroup.com).