

SAFETY DATA SHEET

Safety data sheet according to (EC) No. 1907/2006

SECTION 1: Identification of the substance/preparation and of the company/undertaking**1.1. Product identifier**

Klor Skúm – Chlorine foam

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

Strong alkaline foam detergent with chlorine.

1.3. Details of the supplier of the safety data sheet:

Kemilux

Mykinesgøta 1 - P.O.Box 1231

FO-110 Tórshavn - Faroe Islands

Phone: +298 662000 - Fax +298 350831

Responsible person for the safety data sheet (e-mail): altox@altox.dk

1.4. Emergency telephone number:

NHS (England or Wales): Dial 111 or 0845 4647

NHS 24 (Scotland): Dial 111

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture:**

Corrosive and acute environmentally dangerous liquid.

CLP (1272/2008): Skin Corr. 1A;H314 Eye Dam. 1;H318 Aquatic Acute 1;H400

2.2. Label elements:

Contents: Sodium hydroxide, sodium hypochlorite

**DANGER**

H314: Causes severe skin burns and eye damage.

H400: Very toxic to aquatic life.

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

P260: Do not breathe vapours.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353+P310: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P501: Dispose of contents/container in accordance with applicable regulations.

2.3. Other hazards: None known.

PBT/vPvB: No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

SECTION 3: Composition/information on ingredients**3.2. Mixtures:**

% w/w	Substance name	CAS-no.	EC-no.	Index-no.	REACH reg.no.	Classification
0.5<-2	Sodium hydroxide	1310-73-2	215-185-5	011-002-00-6	-	Skin Corr. 1B;H314 Eye Dam. 1;H318
2-<5	Potassium hydroxide	1310-58-3	215-181-3	019-002-00-8	-	Acute Tox. 4;H302, Skin Corr. 1B;H314 Eye Dam. 1;H318
<10	Amines, C12-16-alkyldimethyl, N-oxides	85408-49-7	287-011-6	-	-	Skin Irrit. 2;H315, Eye Dam. 1;H318 Aquatic Acute 1;H400 (M=1)
15-30	Sodium hypochlorite Solution (15% active chlorine*)	7681-52-9	231-668-3	017-011-00-1	-	Skin Corr. 1B;H314 Eye Dam. 1;H318 Aquatic Acute 1;H400 (M=10) EUH031

* The concentration of active Chlorine in the mixture is below 5%. The substance may liberate volatile Chlorine.

Wording of hazard statements - see section 16.

SECTION 4: First-aid measures

4.1. Description of first aid measures:

Inhalation: Move the affected person to fresh air. **Mild cases:** Keep at rest. If needed: get medical attention.

Severe cases: Place the person in recovery position and keep warm. If respiration has stopped, administer artificial respiration. Seek medical advice immediately.

Skin contact: Remove contaminated clothes. Wash skin with water and mild soap. Seek medical advice; continue to flush on the way.

Eye contact: Immediately flush with water or physiological salt water for at least 15 minutes, holding eyelids open; remember to remove contact lenses, if any. Get medical attention; continue to flush on the way.

Ingestion: Rinse mouth and drink plenty of water. **Do not induce vomiting.** If vomiting occurs keep head down to avoid vomit in the lungs. Call an ambulance.

4.2. Most important symptoms and effects, both acute and delayed:

Corrosion of skin, eyes, lungs and gastrointestinal tract. Headache, dizziness, coughing, laboured breathing and indisposition. Inhalation of high concentration may cause risk of water in the lungs (lung oedema), with symptoms (laboured breathing) that might occur several hours after exposure.

4.3. Indication of any immediate medical attention and special treatment needed:

In case of unconsciousness: Seek medical advice immediately. Show this safety data sheet to a physician or emergency ward.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media:

Not relevant. Not flammable.

5.2. Special hazards arising from the substance or mixture:

Do not inhale smoke fumes. At fire, the product may form hazardous decomposition products such as oxides of carbon, gases of chlorine and corrosive hydrogen chloride.

5.3. Advice for firefighters:

Remove containers if possible or keep containers cool by spraying with water. Use soft jet of water to cool the containers. Use breathing apparatus with an independent source of air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment - see section 8. Avoid further spreading. Provide adequate ventilation.

6.2. Environmental precautions:

Do not empty into drains - see section 12. Inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up:

Absorb spilled liquid with inert material and place in a suitable container for disposal. Clean with water. Further handling of spillage - see section 13.

6.4. Reference to other sections:

See above.

SECTION 7: Handling and storage

7.1. Precautions for safe handling:

Avoid breathing vapours. Provide adequate ventilation. Avoid contact with skin, eyes and clothing. Wash promptly if skin becomes contaminated. Change contaminated clothes. After work, wash hands with water and mild soap. Required access to water and eye wash fountain. Keep separated from acids (acid will cause liberation of toxic and volatile chlorine).

7.2. Conditions for safe storage, including any incompatibilities:

Store in a tightly closed original container and in a well-ventilated area. Do not use metal containers for storage of the product and keep separated from acids.

Store securely and out of reach of unauthorized personnel and separated from food, feed, drugs etc.

7.3. Specific end use(s):

See section 1.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters:

Occupational exposure limits (EH40/2005):

Substance	8-hour TWA	15-min STEL	Comments
Chlorine	-	0.5 ppm = 1.5 mg/m ³	-
Sodium hydroxide	-	2 mg/m ³	-
Potassium hydroxide	-	2 mg/m ³	-
DNEL/PNEC:	No CSR.		

SECTION 8: Exposure controls/Personal protection - continued

8.2. Exposure controls:

Appropriate engineering controls: Ensure adequate ventilation. Room ventilation or open windows.

Personal protective equipment:

Respiratory protection: In case of inadequate ventilation: Use an approved mask with gas filter type B (Grey - for inorganic gases) (EN 140). The filter has a limited lifetime and must be changed. Read the instruction.

Skin protection: Wear protective gloves of neoprene or nitrile (> 0.3 mm) (EN374). No data available on breakthrough time, therefore it is recommended to change the glove if spilled on.

Eye protection: Wear tight fitting safety goggles (EN166) when there is risk of contact with eyes.

Environmental exposure controls: None particular.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

Appearance:	Clear yellowish liquid
Odour:	Chlorine
Odour threshold:	Not relevant
pH:	13.5 (concentrate); 12,5 (use solution)
Melting point / freezing point (°C):	No available data
Initial boiling point and boiling range (°C):	No available data
Decomposition temperature (°C):	No available data
Flash point (°C):	> 93
Evaporation rate:	No available data
Flammability (solid, gas):	No available data
Upper/lower flammability or explosive limits (vol.-%):	No available data
Vapour pressure (mbar, 25°C):	No available data
Vapour density (air=1):	No available data
Relative density (g/ml):	1.10
Solubility:	Miscible
Partition coefficient: n-octanol/water, Log K _{ow} :	No available data
Auto-ignition temperature (°C):	No available data
Viscosity:	No available data
Explosive properties:	Not relevant
Oxidising properties:	Not relevant

9.2. Other information: None relevant

SECTION 10: Stability and reactivity

10.1. Reactivity:

No available data

10.2. Chemical stability:

Stable under normal conditions (see section 7). Sodium hypochlorite is highly oxidizing.

10.3. Possibility of hazardous reactions:

None known.

10.4. Conditions to avoid:

Excessive heating (may form toxic chlorine gas).

10.5. Incompatible materials:

Avoid contact with acids (sodium hypochlorite liberates toxic and volatile chlorine by acid contact). Sodium hypochlorite can also react with organic materials, reducing agents and massive metals.

10.6. Hazardous decomposition products:

When heated to high temperatures (decomposition) toxic gasses are formed such as oxides of carbon and gases of chlorine and corrosive hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects:

Hazard class	Data	Test	Data source
Acute toxicity:			
Inhalation	LC ₅₀ (rat) > 10.5 mg/l (Sodium hypochlorite)	No info	IUCLID
Dermal	LD ₅₀ (rabbit) > 10000 mg/kg (Sodium hypochlorite)	No info	IUCLID
Oral	LD ₅₀ (rat) = 8200 mg/kg (Sodium hypochlorite)	No info	IUCLID
	LD ₅₀ (rat) = 270 mg/kg (Potassium hydroxide)	No info	IUCLID
Corrosion/irritation:	Skin irritation, rabbit (Sodium hypochlorite)	OECD 404	IUCLID
	Eye corrosion, human (Sodium hypochlorite)	No info	IUCLID
	Corrosion, eye, rabbit (Sodium and potassium hydroxide)	No info	IUCLID
	Serious skin irritation (50 mg/24h), human (Sodium and potassium hydroxide)	Draize	RTECS
Sensitization:	Skin sensitization, human (Sodium hypochlorite)	Patch	IUCLID
	No skin sensitization, guinea pig (Sodium and potassium hydroxide)	Intracutaneous	IUCLID
CMR:	No mutagenicity, rat, oral, 900 mg/kg (Sodium hypochlorite)	DNA damage	IUCLID
	No carcinogenicity, rodent, oral, 275 mg chlorine/l, 2Y	No info	IUCLID
	No reproductive toxicity, rodent (Sodium hypochlorite)	Life time	IUCLID
	No available data for carcinogenicity /mutagenicity (Sodium and potassium hydroxide)	-	-
	No genotoxicity by in-vitro test (Sodium and potassium hydroxide)	No info	IUCLID

Information on likely routes of exposure: Inhalation, skin and ingestion.

Symptoms:

Inhalation:

Corrosion of the respiratory tract. Headache, dizziness, coughing, laboured breathing and indisposition and indisposition. High concentration may cause risk of water in the lungs (lung oedema). Be aware that symptoms (laboured breathing) may occur several hours after exposure.

Skin:

Corrosion with redness and pain. Chlorine can be absorbed through skin.

Eyes:

Corrosive with redness, pain and blurred vision. May induce permanent damage of cornea.

Ingestion:

Corrosive for the mucous membranes in mouth, throat and stomach. Symptoms can be nausea, stomach-ache, vomiting and headache. Rapid fall in blood pressure may occur.

Chronic effects:

Long term or repeated skin contact with diluted solutions may cause eczema.

SECTION 12: Ecological information

12.1. Toxicity:

Aquatic	Data (Sodium hypochlorite)	Test (Media)	Data source
Fish	LC ₅₀ (Oncorhynchus gorboscha, 96h) = 0.023-0.052 mg Cl ₂ /l	Flow through (FW)	IUCLID
Crustaceans	EC ₅₀ (Ceriodaphnia sp., 24h) = 0.006 mg	No info	IUCLID
Algae	EC ₅₀ (Skeletonema costatum, 24h) = 0.095 Cl ₂ /l	No info	IUCLID

12.2. Persistence and degradability:

The surfactants in the product pass the ultimate biodegradability test according to EC regulation for surfactants in detergents Amines, C12-16-alkyldimethyl, N-oxides are readily biodegradable (>60% BOD, 28d (OECD 301D)). Methods for the determination of the biological degradation is not applicable to inorganic substances.

12.3. Bioaccumulative potential:

Amines, C12-16-alkyldimethyl, N-oxides: $1 < \text{Log } K_{ow} < 3$ – moderate bioaccumulative.

12.4. Mobility in soil:

Amines, C12-16-alkyldimethyl, N-oxides: $\text{Log } K_{oc} \leq 100$ large mobility in soil.

12.5. Results of PBT and vPvB assessment:

No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

12.6. Other adverse effects:

The mixture has extreme pH. May disturb the ecological balance.

SECTION 13: Disposal considerations

13.1. Waste treatment methods:

The mixture is to be considered as hazardous waste. Disposal should be according to local, state or national legislation. Dispose of through authority facilities or pass to chemical disposal company.

EWC-code:

20 01 29 (mixture itself) and 15 02 02 (Inert material contaminated with the mixture)

SECTION 14: Transport information

14.1. UN-no.: 3266

14.2. UN proper shipping name: CORROSIVE, LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hypochlorite)

14.3. Transport hazard class(es): 8

14.4. Packing group: III (ADR/RID/IMDG) **EMS:** F-A, S-B **Stowage note:** Category A **Segregation:** NONE

14.5. Environmental hazards: Yes.

14.6. Special precautions for user: None.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not relevant.

SECTION 15: Regulatory information

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

The employer shall assess the working conditions and, if there is any risk to the safety or health and any effects on the pregnancy or breastfeeding of workers, take the necessary measures to adjust the working conditions (Directive 92/85/EEC).

Restricted use: Must not be used by persons under 18 years of age.

Other labelling:

According to 648/2004:

15- 30% Chlorine-based bleaching agents

5-15 % Non-ionic surfactants

< 5% Phosphates

15.2. Chemical Safety Assessment:

No CSR.

SECTION 16: Other information

Hazard statements mentioned in section 3:

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H400: Very toxic to aquatic life.

EUH031: Contact with acids liberates toxic gas.

Abbreviations:

CMR = Carcinogenicity, mutagenicity and reproductive toxicity.

CSR = Chemical Safety Report

DNEL = Derived No-Effect Level

EC₅₀ = Effect Concentration 50 %

FW = Fresh Water

LC₅₀ = Lethal Concentration 50 %

LD₅₀ = Lethal Dose 50 %

PBT = Persistent, Bioaccumulative, Toxic

PNEC = Predicted No-Effect Concentration

vPvB = very Persistent, very Bioaccumulative

Literature:

EPA Ecotox = The US Environmental Protection Agency's database on ecotoxicological effects for chemicals.

IUCLID = International Uniform Chemical Information Database.

RTECS = Register of Toxic Effects of Chemical Substances.

Training advice:

No special training is required. However, the user should be well instructed in the execution of his/her task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.

Other information:

The classification and labelling is based on the M-factor for Sodium hypochlorite.

Changes since the previous edition:

Not relevant.

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