SAFETY DATA SHEET

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

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

1.1. Product identifier:

S-1 EXTRA

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

Heavy duty all-round cleaning agent which dissolves oil, dirt, fats, proteins on all washable surfaces in food processing, fishing industries and on ships. Apply with brush, sponge or atomizer. Use 1 part S-1 Extra to 10-20 parts of water. Let the solution work for 10-15 minutes. Rinse with plenty of water.

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:

+298 662000 (within office hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture:

Corrosive liquid.

EC (67/548 or 1999/45): C;R35

CLP (1272/2008): Skin Corr. 1A;H314

2.2. Label elements:

Contents: Disodium metasilicate



DANGER

H314: Causes severe skin burns and eye damage.

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

P102: Keep out of reach of children.

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 5-10	Substance name Alcohol ethoxylate, C_{10-16}	CAS-no.	EC-no. Polymere	Index-no.	REACH regno.	Classification EC: Xn;R22 Xi;R38-41 CLP: Acute Tox. 4:H302
< 5	Disodium metasilicate	6834-92-0	229-912-9	014-010-00-	8 -	Eye Dam. 1;H318 Skin Irrit. 2;H315 EC: C;R34 Xi;R37 CLP: Skin Corr. 1B;H314
< 5	Disodium Cocoamphodipropionate	68604-71-7	271-704-5	-	-	STOT SE 3;H335 EC: Xi;R36 CLP: Eye Irrit. 2;H319

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. Keep at rest. If symptoms persist: Seek medical advice. Skin contact: Remove all contaminated clothing. Wash skin with water and mild soap. Seek medical advice.

Eye contact: Immediately flush with water or physiological salt water for at least 15 minutes, holding eye lids open,

remember to remove contact lenses, if any. Seek medical advice.

Ingestion: Rinse mouth and drink plenty of water. Do not induce vomiting. Seek medical advice.

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

Corrosion of skin, eyes, lungs and gastrointestinal tract.

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: Firefighting measures

5.1. Extinguishing media:

Not flammable.

5.2. Special hazards arising from the substance or mixture:

Not relevant (the product is not combustible).

5.3. Advice for firefighters:

When extinguishing surrounding fires 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. Ventilate area of leak or spill.

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:

Take up with absorbent material (e.g. general-purpose binder) and place in marked container for disposal. Clean with water. Further handling of spillage - see section 13.

6.4. Reference to other sections:

See references above.

SECTION 7: Handling and storage

7.1. Precautions for safe handling:

Avoid contact with skin, eyes and clothing. Provide adequate ventilation. Change contaminated clothes immediately. Wash contaminated skin immediately with water and mild soap. Required access to water and eye wash fountain.

7.2. Conditions for safe storage, including any incompatibilities:

Store in tightly closed original container. Keep in a dry, non-freezing and well ventilated place.

7.3. Specific end use(s):

See section 1.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters:

Occupational exposure limits: No limit. DNEL/PNEC: No CSR.

8.2. Exposure controls:

Appropriate engineering controls:

Ensure adequate ventilation (e.g. turn on room ventilation or open windows if possible).

Personal protective equipment:

Inhalation: In case of working in not adequate ventilated areas, use an approved mask with a particle filter: P2 (EN140).

The filter has a limited lifetime and must be changed. Read the instruction.

Skin: Wear protective gloves of neoprene or nitrile (> 0.3 mm) (EN374). It has not been possible to find data for

breakthrough time. In case of spill on the glove it is recommended to change it after use.

Eyes: Tightly fitting safety goggles or face shield (EN166).

Environmental exposure controls: See section 6 and 13.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

Appearance: Clear red liquid Odour: Scented

Odour threshold: No available data

pH: 13.1 (concentrate), 11 (dilution)

Melting point / freezing point (°C):

No available data

Initial boiling point and boiling range ($^{\circ}$ C): ~ 100

Decomposition temperature (°C): No available data

Flash point (°C): > 100

Evaporation rate:

Flammability (solid, gas):

Upper/lower flammability or explosive limits (vol-%):

Vapour pressure (mbar, 25°C):

Vapour density (air=1):

No available data

No available data

No available data

Relative density (g/ml): 1.07

Solubility: Completely soluble in water

 $\begin{array}{lll} \mbox{Partition coefficient: n-octanol/water, Log K_{ow}:} & \mbox{No available data} \\ \mbox{Auto-ignition temperature (°C):} & \mbox{No available data} \\ \mbox{Viscosity:} & \mbox{No available data} \\ \mbox{Explosive properties:} & \mbox{Not relevant} \\ \mbox{Oxidising properties:} & \mbox{Not relevant} \\ \end{array}$

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).

10.3. Possibility of hazardous reactions:

None known.

10.4. Conditions to avoid:

Excessive heating or freezing.

10.5. Incompatible materials:

Generally avoid mixing with other chemicals, especially other detergents.

10.6. Hazardous decomposition products:

When heated to high temperatures (decomposition) toxic gasses are formed such as oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects:

Hazard class	Data	Test	Data source
Acute toxicity:			
Inhalation	ation No available data.		-
Dermal	No available data.	-	-
Oral	Oral LD_{50} (oral, rat) = 770 mg/kg (corrosion) (Disodium metasilicate)		RTECS
	LD_{50} (oral, rat) = 300-2000 mg/kg (Alcohol ethoxylate, C_{10-16})	OECD 401	ECB
Corrosion/irritation:	Severe irritation of skin, 250 mg/24H, human (Disodium metasilicate)	Draize	RTECS
	Severe irritation, eye, rabbit (Alcohol ethoxylate, C ₁₀₋₁₆)	No info.	CESIO
	Eye irritation, rabbit (Disodium Cocoamphodipropionate)	No info.	CESIO
Sensitization:	No available data.	-	-
CMR:	No available data on carcinogenicity or mutagenicity.	-	-
	No applicable data on reproductive effect (Disodium metasilicate)	_	-

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

Symptoms:

Inhalation: Atomized product can irritate the upper respiratory tract. Symptoms can be throat pain, coughing and

difficulty in breathing.

Skin: Severe irritation with pain, blisters and sores. Degreases skin.

Eyes: Severe irritation with redness, pain and blurred vision. May induce permanent damage of cornea.

Ingestion: Irritation to corrosion of the gastrointestinal tract with nausea, stomach ache, vomiting and diarrhoea.

Chronic effects: Long term or repeated skin contact with splashes and vapours may degrease the skin and cause red, dry,

cracked and thickened skin.

SECTION 12: Ecological information

12.1. Toxicity:

Alcohol ethoxylate, C_{10-16} is toxic in the aquatic environment.

Aquatic	Data	Test (Media)	Data source
Fish	LC_{50} (Rainbow trout - 96 h) = 1-5 mg/l (Alcohol ethoxylate, C_{10-16})	OECD 203 (FW)	EPA Ecotox
Crustaceans	EC_{50} (Daphnia magna - 48 h) = 3-12 mg/l (Alcohol ethoxylate, C_{10-16})	OECD 202 (FW)	EPA Ecotox
Algae	No available applicable data	-	-

12.2. Persistence and degradability:

The surfactants in the product pass the ultimate biodegrability test according to EC regulation for surfactants in detergents. Alcohol ethoxylate, C_{10-16} is readily biodegradable (>60% BOD, 28d (OECD 301B)).

12.3. Bioaccumulative potential:

Alcohol ethoxylate, C_{10-16} : $1 < log K_{ow} < 3 - moderate bioaccumulative.$

12.4. Mobility in soil:

Alcohol ethoxylate, C_{10-16} : Log $K_{oc} \le 15$ –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 is a strong alkaline. 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.: 3267

14.2. UN proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Disodium metasilicate)

14.3. Transport hazard class(es): 8

14.4. Packing group: III (ADR/RID)

III (IMDG) EMS: F-A, S-B Stowage note: Category A Segregation: NONE

14.5. Environmental hazards: None.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:

Other labelling information (648/2004/EC):

5-15% Nonionic surfactants

< 5 % Amphoteric surfactants, Phosphates

d-Limonene, Coumarin

15.2. Chemical Safety Assessment:

No CSR.

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SECTION 16: Other information

Hazard statements mentioned in section 2 and 3:

- R 22: Harmful if swallowed.
- R 34: Causes burns.
- R 35: Causes severe burns.
- R 36: Irritating to eyes.
- R 37: Irritating to respiratory system.
- R 38: Irritating to skin.
- R 41: Risk of serious damage to eyes.
- H302: Harmful if swallowed.
- H314: Causes severe skin burns and eye damage.
- H315: Causes skin irritation.
- H318: Causes serious eye damage.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.

Abbreviations:

CMR = Carcinogenicity, mutagenicity and reproductive toxicity.

CSR = Chemical Safety Report

DNEL = Derived No-Effect Level

 EC_{50} = Effect Concentration 50 %

FW = Fresh Water

 LC_{50} = Lethal Concentration 50 %

 LD_{50} = 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 extreme pH (pH > 11.5).

Changes since the previous edition:

Section 2, 14

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