



PRODUCT INFORMATION SHEET

ENDUROCHLOR VE5

Self Foaming Extended Contact Chlorinated Cleaner

Description:	EnduroChlor is a liquid heavy duty, extended contact, chlorinated alkaline cleaner designed for environmental cleaning in a wide range of food and beverage processing operations.				
Key properties:	EnduroChlor is a liquid heavy duty, extended contact, chlorinated alkaline cleaner designed for environmental cleaning in a wide range of food and beverage processing operations. EnduroChlor is a completely new "extended contact" technology. When applied, EnduroChlor clings to vertical surfaces to provide extended contact time and excellent penetration of stubborn soils. EnduroChlor is well-suited to applications where heavy soiling is encountered: meat plants, poultry processors, fish and vegetable processing plants. It is particularly effective against oily soils and fat deposits. EnduroChlor will provide similar application characteristics and the visibility of a foam detergent. It will also provide the extended retention times and improved cleaning that are characteristic of a gel solution. After the desired contact time, EnduroChlor foam freely rinses and collapses into drains in a fraction of the time of traditional foams.				
Benefits:	Extended contact time Effective for removal of heavy fat and protein Fast rinse and collapse reduces labour, saves time and water, and produces less waste water. Free rinsing; leaves a clean, water break free surface				
Use instructions:	The suggested use concentration of EnduroChlor is 2-10% (v/v) depending on the type and degree of soiling. For specific details please refer to individual method cards. EnduroChlor is suitable for use in any application equipment.				
Technical data					
Appearance:	Clear pale yellow liquid				
Specific gravity:	1.17				
pH (1%):	13.0				
Chemical Oxygen Demand (COD):	80gO ₂ /Kg				
Nitrogen content (N):	0.9%				
Phosphorus content:	6.6% as phosphorus				
Safe handling and storage Information:	Store in original closed containers or (where applicable) in an approved bulk tank, away from extremes of temperatures. Full guidance on the handling and disposal of this product is provided in a separate Material Safety Data Sheet.				
Product compatibility:	EnduroChlor is suitable for use on materials commonly found in the processed food industry, when applied at the recommended concentration. EnduroChlor is unsuitable for use on galvanized parts and soft metals such as Aluminium. Always rinse surfaces thoroughly after use (within 1 hour). In the event of uncertainty it is advisable to evaluate individual materials before any prolonged use				
Test Method:	Alkaline test kit				
Available Pack Sizes:	<table><thead><tr><th>Article code</th><th>Pack size</th></tr></thead><tbody><tr><td>7511375</td><td>20L</td></tr></tbody></table>	Article code	Pack size	7511375	20L
Article code	Pack size				
7511375	20L				



SAFETY DATA SHEET

According to Regulation [EC] No. 1907/2006

ENDUROCHLOR VE5

Professional cleaning/maintenance product for food & beverage industries

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

Product Name: EnduroChlor VE5
Product Code: MSDS4094
Supplier: Hugh Crane (Cleaning Equipment) Ltd.
South Walsham Road, Acle
Norwich, NR13 3ES
Telephone: Tel (01493) 750072 Fax (01493) 751854
Emergency telephone number: 0800 052 0185. For medical or environmental emergency only

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For professional and industrial use only.
AISE-P806 - Foam cleaner. Semi-automatic with venting process
AISE-P807 - Foam cleaner. Semi-automatic without venting process
AISE-P801 - Food process cleaner. Cleaning In place (CIP) process
AISE-P802 - Food process cleaner. Semi-closed cleaning process
Soaking bath. Manual process (AISE_CS_I01 & AISE_CS_I10)
Uses advised against: Uses other than those identified are not recommended

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

The product has been classified and labelled in accordance with Regulation (EC) No 1272/2008.

EUH031
Skin Corr. 1A (H314)
Aquatic Acute 1 (H400)
Aquatic Chronic 2 (H411)
Met. Corr. 1 (H290)

Classification in accordance with Directive 1999/45/EC and corresponding national legislation

Indication of danger: C Corrosive
N Dangerous for the environment
Risk phrases: R31 Contact with acids liberates toxic gas.
R35 Causes severe burns.
R50 Very toxic to aquatic organisms.

Label elements



Signal word: Danger
Contains potassium hydroxide (Potassium Hydroxide).
Hazard statements: EUH031 Contact with acids liberates toxic gas.
H314 Causes severe skin burns and eye damage.
H410 Very toxic to aquatic life with long lasting effects.
H290 May be corrosive to metals.
Precautionary statements: P260 Do not breathe vapours.
P280 Wear protective gloves, protective clothing and eye or face protection.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE, doctor or physician.
Other hazards: No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures



Ingredient(s)	EC No.	CAS No.	REACH number	Classification	Classification 1999/45/EC	Weight %
potassium hydroxide	215-181-3	1310-58-3	01-2119487136-33	Skin Corr. 1A (H314) Met. Corr. 1 (H290) Acute Tox. 4 (H302)	Xn R22 C R35	3-10
sodium hypochlorite	231-668-3	7681-52-9	01-2119488154-34	EUH031 Skin Corr. 1B (H314) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Met Corr 1 (H290)	R31 C R34 Xi R37 N R50	3-10
sodium xylene sulphonate	215-090-9	1300-72-7	01-2119513350-56	Eye Irrit 2 (H319)	Xi; R36/37/38	1-3
N,N-dimethyltetradecylamine N-oxide	222-059-3	3332-27-2	No data available	Acute Tox 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)	Xi R38-41 N R50	1-3
Sodium Hydroxide	215-185-5	1310-73-2	01-2119457892-27	Skin Corr. 1B (H314) Met. Corr. 1 (H290)	C: R35	0.1-1

* Polymer. For the full text of the R, H and EUH phrases mentioned in this Section, see Section 16.

Workplace exposure limit(s), if available, are listed in subsection 8.1.

[1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.

[2] Exempted: included in Annex IV of Regulation (EC) No 1907/2006. [3] Exempted: Annex V of Regulation (EC) No 1907/2006.

[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.

4. FIRST AID MEASURES

Description Of First Aid Measures

Inhalation: Get medical attention or advice if you feel unwell.

Skin contact: Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before re-use. Immediately call a POISON CENTRE, doctor or physician.

Eye contact: Immediately rinse eyes cautiously with lukewarm water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

Ingestion: Rinse mouth. Immediately drink 1 glass of water. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

Self-protection of first aider: Consider personal protective equipment as indicated in subsection 8.2.

Most Important Symptoms And Effects, Both Acute And Delayed

Inhalation: May cause bronchospasm in chlorine sensitive individuals.

Skin contact: Causes severe burns.

Eye contact: Causes severe or permanent damage.

Ingestion: Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

Indication Of Any Immediate Medical Attention And Special Treatment Needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media: Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

Special hazards arising from the substance or mixture: No special hazards known.

Advice for firefighters: As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective Eqpt & emergency procedures: Ensure adequate ventilation. Do not breathe dust or vapour. In case of an incident in a confined area wear suitable respiratory protection. Wear suitable protective clothing, gloves and eye/face protection.



Environmental precautions: Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Dilute with plenty of water. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

Methods and material for containment and cleaning up: Absorb onto dry sand or similar inert material. Ensure adequate ventilation.

Reference to other sections: For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

7. HANDLING & STORAGE

Precautions for safe handling

Measures to prevent fire and explosions: No special precautions required.

Measures required to protect the environment: For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Sealed Air. Wash hands before breaks and at the end of workday. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Use personal protective equipment as required. Avoid contact with skin and eyes. Do not breathe vapours. Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities: Store in accordance with local and national regulations. Keep only in original container. Store in a closed container. For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

Specific end use(s): No specific advice for end use available.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Control Parameters

Workplace exposure limits

Air limit values, if available:

Ingredient(s)	UK - Long term value(s)	UK - Short term value(s)
Potassium Hydroxide		2 mg/m ³
Sodium Hydroxide		2 mg/m ³

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

DNEL/DMEL and PNEC values

Human exposure

DNEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term – Local effects	Short term – Systemic effects	Long term – Local effects	Long term – Systemic effects
potassium hydroxide	-	-	-	-
sodium hypochlorite	-	-	-	0.26
sodium xylene sulphonate	-	-	-	3.8
N,N-dimethyltetradecylamine N-oxide	No data available	No data available	No data available	No data available
Sodium hydroxide	-	-	-	-

DNEL dermal exposure – Worker

Ingredient(s)	Short term – Local effects	Short term – Systemic effects (mg/kg bw)	Long term – Local effects	Long term – Systemic effects (mg/kg bw)
potassium hydroxide	No data available	-	-	-
sodium hypochlorite	No data available	-	0.5%	-
sodium xylene sulphonate	No data available	-	No data available	7.6
N,N-dimethyltetradecylamine N-oxide	No data available	No data available	No data available	No data available
Sodium hydroxide	2%			

DNEL dermal exposure – Consumer

Ingredient(s)	Short term – Local effects	Short term – Systemic effects (mg/kg bw)	Long term – Local effects	Long term – Systemic effects (mg/kg bw)
potassium hydroxide	No data available	-	No data available	-
sodium hypochlorite	No data available	-	0.5%	-
sodium xylene sulphonate	No data available	-	No data available	3.8
N,N-dimethyltetradecylamine N-oxide	No data available	No data available	No data available	No data available
Sodium hydroxide	2%			



DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term – Local effects	Short term –Systemic effects	Long term – Local effects	Long term – Systemic effects
potassium hydroxide	-	-	1	-
sodium hypochlorite	3.1	3.1	1.55	1.55
sodium xylene sulphonate	-	-	-	53.6
N,N-dimethyltetradecylamine N-oxide	No data available	No data available	No data available	No data available
Sodium hydroxide	-	-	1	-

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term – Local effects	Short term –Systemic effects	Long term – Local effects	Long term – Systemic effects
potassium hydroxide	-	-	1	-
sodium hypochlorite	3.1	3.1	1.55	1.55
sodium xylene sulphonate	-	-	-	13.2
N,N-dimethyltetradecylamine N-oxide	No data available	No data available	No data available	No data available
Sodium hydroxide	-	-	1	-

Environmental exposure – PNEC

Ingredient(s)	Surface Water, Fresh (mg/l)	Surface Water, Marine (mg/l)	Intermittent (mg/l)	Sewage Treatment Plant (mg/l)
potassium hydroxide	-	-	-	-
sodium hypochlorite	0.00021	0.000042	0.00026	0.03
sodium xylene sulphonate	0.23	-	2.3	100
N,N-dimethyltetradecylamine N-oxide	No data available	No data available	No data available	No data available
Sodium hydroxide	-	-	-	-

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
potassium hydroxide	-	-	-	-
sodium hypochlorite	-	-	-	0.00026
sodium xylene sulphonate	-	-	-	-
N,N-dimethyltetradecylamine N-oxide	No data available	No data available	No data available	No data available
Sodium hydroxide	-	-	-	-

Exposure Controls

The following information applies for the uses indicated in subsection 1.2.

If available, please refer to the product information sheet for application and handling instructions.

Normal use conditions are assumed for this section.

Recommended safety measures for handling the **undiluted** product:

Covering activities such as filling and transfer of product to application equipment, flasks or buckets.

Appropriate engineering controls: If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required. Where possible: use in automated/closed system and cover open containers. Transport over pipes. Filling with automatic systems. Use tools for manual handling of product.

Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

Personal Protective Equipment

Eye / face protection:

Safety glasses or goggles (EN 166). The Use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

Hand protection:

Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact:

Material: butyl rubber
 Penetration time: >= 480 min
 Material thickness: >= 0.7 mm

Suggested gloves for protection against splashes:

Material: nitrile rubber
 Penetration time: >= 30 min
 Material thickness: >= 0.4 mm

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen



Body protection: Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur.

Respiratory protection: If exposure to liquid particles or splashes cannot be avoided use: half mask (EN 140) with particle filter P2 (EN 143) or full-face mask (EN 136) with particle filter P1 (EN 143)
 Consider specific local use conditions. In consultation with the supplier of respiratory protection equipment a different type providing similar protection may be chosen. Specific applications tools may be available to limit exposure. Please refer to the product information sheet for the possibilities.

Environmental exposure controls: Should not reach sewage water or drainage ditch undiluted.

*Recommended safety measures for handling the **diluted** product:*

Recommended maximum concentration (%): 10

Appropriate engineering controls: Ensure that foam equipment does not generate respirable particles. Ensure that ventilation is present with an exposure reduction efficacy of at least 90%.

Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection: Safety glasses or goggles (EN 176) are always recommended for foam applications.

Hand protection: Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier, Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature
 Suggested gloves for prolonged contact:

Material: butyl rubber
 Penetration time: >= 480 min
 Material thickness: >= 0.7 mm

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

Body protection: No special requirements under normal use conditions.

Respiratory protection: Respiratory protection is not normally required. However inhalation of vapour, spray, gas or aerosols should be avoided.

Environmental exposure controls: No special requirements under normal use conditions.

9. PHYSICAL & CHEMICAL PROPERTIES

Information On Basic Physical And Chemical Properties

Information in this section refers to the product, unless it is specifically stated that substance data is listed

Physical State: Liquid
Colour: Clear Yellow
Odour: Chlorine
Odour Threshold: Not applicable.
pH: > 12 (neat)
Melting/Freezing Point (°C): Not determined.
Initial Boiling Point/range (°C): Not determined

Substance Data, Boiling Point

Ingredient(s)	Value (°C)	Method	Atmospheric Pressure (hPa)
potassium hydroxide	140	Method not given	1013
sodium hypochlorite	96-120	Method not given	1013
sodium xylene sulphonate	>100	Method not given	
N,N-dimethyltetradecylamine N-oxide	100	Method not given	
Sodium hydroxide	>990	Method not given	

Flash point (°C): Not applicable.
Sustained Combustion: Not applicable.
Evaporation Rate: Not determined.
Flammability (Solid/Gas): Not determined.
Upper/Lower Flammability Limit (%): Not determined.
 Substance Data, Flammability/Explosive Limits, if Available:

Vapour Pressure: Not determined.

Substance Data, Data Pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
potassium hydroxide	2300	Method not given	20
sodium hypochlorite	1700 – 2000	Method not given	20
sodium xylene sulphonate	No data available		
N,N-dimethyltetradecylamine N-oxide	230	Method not given	25
Sodium hydroxide	<1330	Method not given	20



Vapour Density: Not determined
Relative Density: 1.18 g/cm³ (20°C)
Solubility in / Miscibility with Water: Fully miscible

Substance Data, Solubility in Water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
potassium hydroxide	No data available		
sodium hypochlorite	No data available		
sodium xylene sulphonate	664	Method not given	
N,N-dimethyltetradecylamine N-oxide	Soluble		
Sodium hydroxide	1000	Method not given	20

Substance Data, Partition Coefficient N-Octanol/Water (log Kow): See Section 12.

Autoignition Temperature: Not determined.
Decomposition Temperature: Not applicable.
Viscosity: Not determined.
Explosive properties: Not explosive.
Oxidising properties: Not oxidising.
Other Information
Surface Tension (N/m): Not determined.
Corrosion To Metals: Corrosive - Weight of evidence.

Substance Data, Dissociation Constant, If Application

Ingredient(s)	Value	Method	Temperature (°C)
sodium hypochlorite	7.53 (pKa)	Method not given	

10. STABILITY & REACTIVITY

Reactivity: No reactivity hazards known under normal storage and use conditions.
Chemical stability: Stable under normal storage and use conditions.
Possibility of hazardous reactions: No hazardous reactions known under normal storage and use conditions.
Conditions to avoid: None known under normal storage and use conditions.
Incompatible materials: Reacts with acids releasing toxic chlorine gas. Keep away from acids.
Hazardous decomposition products: Chlorine.

11. TOXICOLOGICAL INFORMATION

Information On Toxicological Effects

Mixture Data

Relevant calculated ATE(s): ATE - Oral (mg/kg): >2000

Substance data, where relevant and available, are listed below.

Acute Toxicity

Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
potassium hydroxide	LD ₅₀	333	Rat	OECD 425	
sodium hypochlorite	LD ₅₀	> 1100	Rat	Method not given	
sodium xylene sulphonate	LD ₅₀	>7200	Rat	Method not given	
N,N-dimethyltetradecylamine N-oxide	LD ₅₀	>2000	Rat	Method not given	
Sodium hydroxide		No data available			

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
potassium hydroxide		No data available			
sodium hypochlorite	LD ₅₀	>20000	Rabbit	Method not given	-
sodium xylene sulphonate	LD ₅₀	>2000	Rabbit	Method not given	-
N,N-dimethyltetradecylamine N-oxide		No data available			
Sodium hydroxide		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
potassium hydroxide		No data available			
sodium hypochlorite	LC ₀	>10.5 (vapour)	Rat	OECD 403 (EU B.2)	1
sodium xylene sulphonate	LC ₀	0.39 (dust)	Rat	EPA OPP 81-3	4
N,N-dimethyltetradecylamine N-oxide		No data available			
Sodium hydroxide		No data available			



Irritation And Corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time (h)
potassium hydroxide	Corrosive	Rabbit	Draize Test	
sodium hypochlorite	Corrosive	Rabbit	Method not given	
sodium xylene sulphonate	Mild Irritant	Rabbit	OECD 404 (EU B.4)	
N,N-dimethyltetradecylamine N-oxide	Irritant	Rabbit	Method not given	
Sodium hydroxide	Corrosive	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time (h)
potassium hydroxide	Corrosive		Method not given	
sodium hypochlorite	Severe damage	Rabbit	Method not given	
sodium xylene sulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	
N,N-dimethyltetradecylamine N-oxide	Severe damage	Rabbit	Method not given	
Sodium hydroxide	Corrosive	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time (h)
potassium hydroxide	No data available			
sodium hypochlorite	Irritating to respiratory tract			
sodium xylene sulphonate	No data available			
N,N-dimethyltetradecylamine N-oxide	No data available			
Sodium hydroxide	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
potassium hydroxide	Not sensitising	Guinea Pig	Method not given	
sodium hypochlorite	Not sensitising	Guinea Pig	Method not given	-
sodium xylene sulphonate	Not sensitising	Guinea Pig	OECD 406 (EU B.6) / GPMT	-
N,N-dimethyltetradecylamine N-oxide	No data available			
Sodium hydroxide	Not sensitising		Human Repeated Patch Test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time (h)
potassium hydroxide	No data available			
sodium hypochlorite	No data available			-
sodium xylene sulphonate	No data available			-
N,N-dimethyltetradecylamine N-oxide	No data available			
Sodium hydroxide	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
potassium hydroxide	No evidence for mutagenicity, negative test results	Method not given	No data available	
sodium hypochlorite	No evidence for mutagenicity, weight of evidence	OECD 471 (EU B.12/13)	No evidence for mutagenicity, negative test results	Method not given
sodium xylene sulphonate	No data available		No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
N,N-dimethyltetradecylamine N-oxide	No data available		No data available	
Sodium hydroxide	No evidence for mutagenicity, negative test results	DNA repair test on rat hepatocytes OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD 475 (EU B.11)

Carcinogenicity

Ingredient(s)	Effect
potassium hydroxide	No evidence for carcinogenicity, negative test results
sodium hypochlorite	No evidence for carcinogenicity, negative test results
sodium xylene sulphonate	No evidence for carcinogenicity, negative test results
N,N-dimethyltetradecylamine N-oxide	No data available
Sodium hydroxide	No evidence for carcinogenicity, weight of evidence.



Toxicity for reproduction

Ingredient(s)	End point	Specific Effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks & other effects reported
potassium hydroxide			No data available				No evidence for reproductive toxicity
sodium hypochlorite	NOAEL	Developmental toxicity	5 (Cl)	Rat	Not known		No evidence for reproductive toxicity
sodium xylene sulphonate	NOAEL	Teratogenic effects	>936	Rat	Non guideline test		
N,N-dimethyltetradecylamine N-oxide			No data available				
Sodium hydroxide			No data available				No evidence for developmental or reproductive toxicity.

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
potassium hydroxide		No data available				
sodium hypochlorite	NOAEL	50	Rat	Method not given	90	
sodium xylene sulphonate	NOAEL	763 - 3534	Rat	OECD 408 (EU B.26)	90	
N,N-dimethyltetradecylamine N-oxide		No data available				
Sodium hydroxide		No data available				

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
potassium hydroxide		No data available				
sodium hypochlorite		No data available				
sodium xylene sulphonate	NOAEL	>440		OECD 411 (EU B.28)	90	
N,N-dimethyltetradecylamine N-oxide		No data available				
Sodium hydroxide		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	End point	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects & organs affected
potassium hydroxide		No data available				
sodium hypochlorite		No data available				
sodium xylene sulphonate		No data available				
N,N-dimethyltetradecylamine N-oxide		No data available				
Sodium hydroxide		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	End point	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects & organs affected	Remark
potassium hydroxide			No data available					
sodium hypochlorite			No data available					
sodium xylene sulphonate			No data available					
N,N-dimethyltetradecylamine N-oxide			No data available					
Sodium hydroxide			No data available					

STOT - Single Exposure

Ingredient(s)	Affected Organ(s)
potassium hydroxide	No data available
sodium hypochlorite	No data available
sodium xylene sulphonate	No data available
N,N-dimethyltetradecylamine N-oxide	No data available
Sodium hydroxide	No data available



STOT - Repeated Exposure

Ingredient(s)	Affected Organ(s)
potassium hydroxide	No data available
sodium hypochlorite	No data available
sodium xylene sulphonate	No data available
N,N-dimethyltetradecylamine N-oxide	No data available
Sodium hydroxide	No data available

Aspiration hazard: Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

Potential adverse health effects and symptoms: Effects and symptoms related to the product, if any, are listed in subsection 4.2.

12. ECOLOGICAL INFORMATION

Toxicity: No data is available on the mixture.
 Substance data, where relevant and available, are listed below

Aquatic short-term toxicity
 Aquatic short-term toxicity – fish

Ingredient(s)	End point	Value (mg/l)	Species	Method	Exposure time (h)
potassium hydroxide	LC ₅₀	80	Various species	Method not given	24
sodium hypochlorite	LC ₅₀	0.06	Various species	Method not given	96
sodium xylene sulphonate	LC ₅₀	> 1000	Fish	EPA-OPPTS	96
N,N-dimethyltetradecylamine N-oxide	LC ₅₀	10 – 100	Brachydanio rerio	OECD 203 Read Across	96
Sodium hydroxide	LC ₅₀	35	Various species	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	End point	Value (mg/l)	Species	Method	Exposure time (h)
potassium hydroxide	EC ₅₀	30 – 1000	Daphnia magna Straus	Method not given	
sodium hypochlorite	EC ₅₀	0.026	Not specified	Method not given	48
sodium xylene sulphonate	EC ₅₀	> 1000	Daphnia	EPA-OPPTS	48
N,N-dimethyltetradecylamine N-oxide	EC ₅₀	11.1	Daphnia magna Straus	OECD 202	48
Sodium hydroxide	EC ₅₀	40.4	Ceriodaphnia sp.	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	End point	Value (mg/l)	Species	Method	Exposure time (h)
potassium hydroxide		No data available			
sodium hypochlorite	NOEC	0.0021	Not Specified	Method not given	168
sodium xylene sulphonate	EC ₅₀	>12	Not specified	US-EPA 1994	96
N,N-dimethyltetradecylamine N-oxide	EC ₅₀	0.47	Pseudokirchneriella subcapitata	OECD 201 Read Across	72
Sodium hydroxide	EC ₅₀	22	Photobacterium phosphoreum	Method not given	0.25

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
potassium hydroxide		No data available			-
sodium hypochlorite		No data available			-
sodium xylene sulphonate		No data available			-
N,N-dimethyltetradecylamine N-oxide		No data available			-
Sodium hydroxide		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
potassium hydroxide		No data available			
sodium hypochlorite		0.375	Activated sludge	Method not given	
sodium xylene sulphonate	E _r C ₅₀	>1000	Activated sludge	OECD 209	3 Hrs
N,N-dimethyltetradecylamine N-oxide	EC ₅₀	56	Pseudomonas putida	DIN 38412/Part 8 Read Across	
Sodium hydroxide		No data available			



Aquatic long-term toxicity

Aquatic long-term toxicity – fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
potassium hydroxide		No data available				
sodium hypochlorite	NOEC	0.04	Menidia pelinsulae	Method not given	96 hour(s)	
sodium xylene sulphonate		No data available				
N,N-dimethyltetradecylamine N-oxide		No data available				
Sodium hydroxide		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	End point	Value (mg/l)	Species	Method	Exposure time	Effects observed
potassium hydroxide		No data available			-	
sodium hypochlorite		No data available			-	
sodium xylene sulphonate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
Sodium hydroxide		No data available			-	

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time	Effects observed
potassium hydroxide		No data available			-	
sodium hypochlorite		No data available			-	
sodium xylene sulphonate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
Sodium hydroxide		No data available			-	

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time	Effects observed
potassium hydroxide		No data available			-	
sodium hypochlorite		No data available			-	
sodium xylene sulphonate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
Sodium hydroxide		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time	Effects observed
potassium hydroxide		No data available			-	
sodium hypochlorite		No data available			-	
sodium xylene sulphonate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
Sodium hydroxide		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time	Effects observed
potassium hydroxide		No data available			-	
sodium hypochlorite		No data available			-	
sodium xylene sulphonate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
Sodium hydroxide		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time	Effects observed
potassium hydroxide		No data available			-	
sodium hypochlorite		No data available			-	
sodium xylene sulphonate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
Sodium hydroxide		No data available			-	



Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time	Effects observed
potassium hydroxide		No data available			-	
sodium hypochlorite		No data available			-	
sodium xylene sulphonate		No data available			-	
N,N-dimethyltetradecylamine N-oxide		No data available			-	
Sodium hydroxide		No data available			-	

Persistence And Degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
sodium hypochlorite	115 day(s)	Indirect photo-oxidation		
Sodium hydroxide	13 second(s)	Method not given	Rapidly photodegradable	

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
potassium hydroxide					
sodium hypochlorite					
sodium xylene sulphonate			99.8% in 28 days	OECD 301B	Readily biodegradable
N,N-dimethyltetradecylamine N-oxide			>60% in 28 days	OECD 301D	Readily biodegradable
Sodium hydroxide					Not applicable (inorganic substance)

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
potassium hydroxide	No data available		Not relevant, does not bioaccumulate	
sodium hypochlorite	-3.42	Method not given	No bioaccumulation expected.	
sodium xylene sulphonate	-3.12	Method not given	No bioaccumulation expected.	
N,N-dimethyltetradecylamine N-oxide	No data available		No bioaccumulation expected	
Sodium hydroxide	No data available		Not relevant, does not bioaccumulate	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
potassium hydroxide	No data available				
sodium hypochlorite	No data available				
sodium xylene sulphonate	No data available				
N,N-dimethyltetradecylamine N-oxide	No data available				
Sodium hydroxide	No data available				

Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption Coefficient Log Koc	Desorption Coefficient Log Koc (des)	Method	Soil / Sediment type	Evaluation
potassium hydroxide	No data available				Low potential for adsorption to soil
sodium hypochlorite	1.12				High potential for mobility in soil
sodium xylene sulphonate	No data available				
N,N-dimethyltetradecylamine N-oxide	No data available				
Sodium hydroxide	No data available				Mobile in soil

Results of PBT and vPvB assessment:
Other adverse effects:

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.
No other adverse effects known.



13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Waste from residues / unused products:

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

European Waste Catalogue:

20 01 15* - alkalines.

Empty packaging

Recommendation:

Dispose of observing national or local regulations.

Suitable cleaning agents:

Water, if necessary with cleaning agent.

14. TRANSPORT INFORMATION



ADR, RID, ADN, IMO/IMDG, ICAO/IATA

UN number:

1719

UN proper shipping name:

Caustic alkali liquid, n.o.s. (potassium hydroxide , hypochlorite)

Transport hazard Class:

8

Label(s):

8

Packing group:

II

Environmental hazards:

Environmentally hazardous:

Yes

Marine pollutant:

Yes

Special precautions for user:

None known.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: The product is not transported in bulk tankers.

Other Relevant Information

ADR

Classification Code:

C5

Tunnel restriction code:

E

Hazard identification number:

80

IMO/IMDG

EmS:

F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

15. REGULATORY INFORMATION

Safety, Health And Environmental Regulations/Legislation Specific For The Substance Or Mixture

Authorisations or restrictions (Regulation [EC] No 1907/2006, Title VII respectively Title VIII): Not applicable

Ingredients according to EC Detergents Regulation 648/2004

anionic surfactants, chlorine-based bleaching agents, non-ionic surfactants, phosphates, Polycarboxylates, soap < 5%

Chemical safety assessment:

A chemical safety assessment has not been carried out on the mixture

16. OTHER INFORMATION

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract.

MSDS code:

MSDS4094

Date of Revision:

12th July 2015

Reason for revision:

Overall design adjusted in accordance with Amendment 453/2010, Annex II of Regulation (EC) No 1907/2006.



Classification procedure:

The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

Full text of the R, H and EUH phrases mentioned in section 3:

H290 May be corrosive to metals.
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.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
EUH031 Contact with acids liberates toxic gas.

R22 Harmful if swallowed.
R31 Contact with acids liberates toxic gas.
R34 Causes burns.
R35 Causes severe burns.
R36 Irritating to eyes.
R37 Irritating to respiratory system
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R50 Very toxic to aquatic organisms.

Abbreviations and acronyms:

AISE The international Association for Soaps, Detergents and Maintenance Products.
ATE Acute Toxicity Estimate.
DNEL Derived No Effect Limit.
EUH CLP Specific hazard statement.
PBT Persistent, Bioaccumulative and Toxic.
PNEC Predicted No Effect Concentration.
REACH number - REACH registration number, without supplier specific part.
vPvB very Persistent and very Bioaccumulative.

End of Safety Data Sheet.