AQUATUFF

Wilhelmsen Ships Service AS

Version No: **4.6**
Safety Data Sheet (Conforms to Regulation (EU) No 2015/830)

Issue Date: **11/21/2016**
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L.REACH.NOR.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product Identifier

Product name	AQUATUFF
Synonyms	Product Part Number: 607826 (25 liter), 607827 (210 liter)
Proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S. (potassium hydroxide solution)
Other means of identification	607826 - 607827, 607827, 607826

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

Relevant identified uses	- Degreaser - Cleaning agent
Uses advised against	Not Applicable

1.3. Details of the supplier of the safety data sheet

Registered company name	**Wilhelmsen Ships Service AS**	**Outback (M)SDS portal: http://jr.chemwatch.net/outb/account /autologin?login=wilhelmsen**	**Wilhelmsen Ships Service AS***
Address	Strandveien 20 Lysaker 1366 Norway	--------Use our Outback portal to obtain our (M)SDSs in other languages and/or format.--------- For questions relating to our SDSs please use Email: WSS.GLOBAL.SDSINFO@wilhelmsen.com --------- Norway	Willem Barentszstraat 50 Rotterdam 3165AB Netherlands
Telephone	+47 67 58 40 00	Not Available	+31 10 4877 777
Fax	Not Available	Not Available	+31 10 4877888
Website	http://www.wilhelmsen.com/	Not Available	http://www.wilhelmsen.com
Email	wss.norway.cs@wilhelmsen.com	Not Available	wss.rotterdam@wilhelmsen.com

1.4. Emergency telephone number

Association / Organisation	**Giftinformasjonssentralen - 24 timer**	**American Chemistry Council 24hrs - Chemtrec**	**International NCEC (24hr)/Dutch nat. poison centre**
Emergency telephone numbers	+47 22591300	+1 703 527 3887	+ 44 1865 407333
Other emergency telephone numbers	Not Available	(800) 424 9300	+ 31 30 274 88 88

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Considered a hazardous mixture according to Reg. (EC) No 1272/2008 and their amendments. Classified as Dangerous Goods for transport purposes.

CHEMWATCH HAZARD RATINGS

	Min	Max
Flammability	0	
Toxicity	0	
Body Contact	4	
Reactivity	0	
Chronic	0	

0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

DSD classification	In case of mixtures, classification has been prepared by following DPD (Directive 1999/45/EC) and CLP Regulation (EC) No 1272/2008 regulations
DPD classification [1]	R35 Causes severe burns. R41 Risk of serious damage to eyes.
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI*
Classification according to regulation (EC) No 1272/2008 [CLP] [1]	H290 - Metal Corrosion Category 1, H314 - Skin Corrosion/Irritation Category 1C
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI*

2.2. Label elements

Hazard pictogram(s)	
SIGNAL WORD	**DANGER**

Hazard statement(s)

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P234	Keep only in original container.

Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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 CENTER/doctor/physician/first aider.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary statement(s) Storage

P405	Store locked up.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.

REACh - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to directive 67/548/EEC [DSD]	Classification according to regulation (EC) No 1272/2008 [CLP]
1.160875-66-1 2.Not Available 3.Not Available 4.Not Available	1-5	2-propylheptanol, ethoxylated	R22, R38, R41 [1]	Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage Category 1; H302, H315, H318 [1]
1.1310-58-3 2.215-181-3 3.019-002-00-8 4.01-2119487136-33-XXXX	1-5	potassium hydroxide	R22, R35 [2]	Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 1A; H302, H314 [3]
1.6834-92-0 2.229-912-9 3.014-010-00-8 4.01-2119449811-37-XXXX	1-5	sodium metasilicate, anhydrous	R34, R37 [2]	Skin Corrosion/Irritation Category 1B, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation); H314, H335 [3]
1.68439-46-3* 2.Not Available 3.Not Available 4.01-2119980051-45-XXXX	1-5	primary c9-c11 alcoholethoxylate	R41 [1]	Eye Irritation Category 2; H319 [1]
1.112-34-5* 2.203-961-6 3.603-096-00-8 4.01-2119475104-44-XXXX	1-5	2-(2-butoxyethoxy)ethanol	R36 [1]	Eye Irritation Category 2; H319 [1]

Legend:	*1. Classified by Chemwatch; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI 4. Classification drawn from C&L*

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

General	If skin or hair contact occurs: ▸ Immediately flush body and clothes with large amounts of water, using safety shower if available. ▸ Quickly remove all contaminated clothing, including footwear. ▸ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. ▸ Transport to hospital, or doctor. If this product comes in contact with the eyes: ▸ Immediately hold eyelids apart and flush the eye continuously with running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. ▸ Transport to hospital or doctor without delay. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. ▸ If fumes or combustion products are inhaled remove from contaminated area. ▸ Lay patient down. Keep warm and rested. ▸ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▸ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▸ Transport to hospital, or doctor, without delay. ▸ Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. ▸ Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). ▸ As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in

	‣ semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. ‣ Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. **This must definitely be left to a doctor or person authorised by him/her.** (ICSC13719) ‣ For advice, contact a Poisons Information Centre or a doctor at once. ‣ Urgent hospital treatment is likely to be needed. ‣ If swallowed do **NOT** induce vomiting. ‣ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ‣ Observe the patient carefully. ‣ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ‣ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ‣ Transport to hospital or doctor without delay.
Eye Contact	If this product comes in contact with the eyes: ‣ Immediately hold eyelids apart and flush the eye continuously with running water. ‣ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ‣ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. ‣ Transport to hospital or doctor without delay. ‣ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: ‣ Immediately flush body and clothes with large amounts of water, using safety shower if available. ‣ Quickly remove all contaminated clothing, including footwear. ‣ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. ‣ Transport to hospital, or doctor.
Inhalation	‣ If fumes or combustion products are inhaled remove from contaminated area. ‣ Lay patient down. Keep warm and rested. ‣ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ‣ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ‣ Transport to hospital, or doctor, without delay. ‣ Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. ‣ Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). ‣ As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. ‣ Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. **This must definitely be left to a doctor or person authorised by him/her.** (ICSC13719)
Ingestion	‣ For advice, contact a Poisons Information Centre or a doctor at once. ‣ Urgent hospital treatment is likely to be needed. ‣ If swallowed do **NOT** induce vomiting. ‣ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ‣ Observe the patient carefully. ‣ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ‣ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ‣ Transport to hospital or doctor without delay.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

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

For acute or short-term repeated exposures to highly alkaline materials:

- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- Oxygen is given as indicated.
- The presence of shock suggests perforation and mandates an intravenous line and fluid administration.
- Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue.

Alkalis continue to cause damage after exposure.

INGESTION:

- Milk and water are the preferred diluents

No more than 2 glasses of water should be given to an adult.

- Neutralising agents should never be given since exothermic heat reaction may compound injury.

* Catharsis and emesis are absolutely contra-indicated.

* Activated charcoal does not absorb alkali.
* Gastric lavage should not be used.

Supportive care involves the following:

- Withhold oral feedings initially.
- If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.
- Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.
- Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).

SKIN AND EYE:

- Injury should be irrigated for 20-30 minutes.

Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

SECTION 5 FIREFIGHTING MEASURES

5.1. Extinguishing media

- Water spray or fog.
- Foam.
- Dry chemical powder.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.

5.3. Advice for firefighters

Fire Fighting	‣ Alert Fire Brigade and tell them location and nature of hazard. ‣ Wear full body protective clothing with breathing apparatus. ‣ Prevent, by any means available, spillage from entering drains or water course.
Fire/Explosion Hazard	‣ Non combustible. ‣ Not considered a significant fire risk, however containers may burn. May emit corrosive fumes.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	‣ Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. ‣ Check regularly for spills and leaks. ‣ Clean up all spills immediately. ‣ Avoid breathing vapours and contact with skin and eyes. ‣ Control personal contact with the substance, by using protective equipment.
Major Spills	Chemical Class: bases For release onto land: recommended sorbents listed in order of priority.

SORBENT TYPE	RANK	APPLICATION	COLLECTION	LIMITATIONS
LAND SPILL - SMALL				
cross-linked polymer - particulate	1	shovel	shovel	R,W,SS
cross-linked polymer - pillow	1	throw	pitchfork	R, DGC, RT
sorbent clay - particulate	2	shovel	shovel	R, I, P
foamed glass - pillow	2	throw	pitchfork	R, P, DGC, RT
expanded minerals - particulate	3	shovel	shovel	R, I, W, P, DGC
foamed glass - particulate	4	shovel	shovel	R, W, P, DGC,
LAND SPILL - MEDIUM				
cross-linked polymer -particulate	1	blower	skiploader	R,W, SS
sorbent clay - particulate	2	blower	skiploader	R, I, P
expanded mineral - particulate	3	blower	skiploader	R, I,W, P, DGC

cross-linked polymer - pillow	3	throw	skiploader	R, DGC, RT
foamed glass - particulate	4	blower	skiploader	R, W, P, DGC
foamed glass - pillow	4	throw	skiploader	R, P, DGC., RT

Legend
DGC: Not effective where ground cover is dense
R; Not reusable
I: Not incinerable
P: Effectiveness reduced when rainy
RT:Not effective where terrain is rugged
SS: Not for use within environmentally sensitive sites
W: Effectiveness reduced when windy
Reference: Sorbents for Liquid Hazardous Substance Cleanup and Control;
R.W Melvold et al: Pollution Technology Review No. 150: Noyes Data Corporation 1988

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling	‣ Avoid all personal contact, including inhalation. ‣ Wear protective clothing when risk of exposure occurs. ‣ Use in a well-ventilated area.
Fire and explosion protection	See section 5
Other information	‣ Store in original containers. ‣ Keep containers securely sealed. ‣ Store in a cool, dry, well-ventilated area. ‣ **DO NOT** store near acids, or oxidising agents ‣ No smoking, naked lights, heat or ignition sources.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	‣ Lined metal can, lined metal pail/ can. ‣ Plastic pail. ‣ Polyliner drum. For low viscosity materials ‣ Drums and jerricans must be of the non-removable head type. ‣ Where a can is to be used as an inner package, the can must have a screwed enclosure. For materials with a viscosity of at least 2680 cSt.
Storage incompatibility	‣ Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. ‣ Avoid contact with copper, aluminium and their alloys.

\+ X \+ O \+ \+ \+

X — Must not be stored together
0 — May be stored together with specific preventions
+ — May be stored together

7.3. Specific end use(s)

See section 1.2

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

DERIVED NO EFFECT LEVEL (DNEL)

Not Available

PREDICTED NO EFFECT LEVEL (PNEC)

Not Available

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Norway regulations on action values and limit values for physical and chemical factors in the work environment and infection risk groups for biological factors (Norwegian)	potassium hydroxide	Kaliumhydroksid	Not Available	Not Available	2 mg/m3	T
European Union (EU) Commission Directive 2006/15/EC establishing a second list of indicative occupational exposure limit values (IOELVs)	2-(2-butoxyethoxy)ethanol	2-(2-Butoxyethoxy)ethanol	67,5 mg/m3 / 10 ppm	101,2 mg/m3 / 15 ppm	Not Available	E
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)	2-(2-butoxyethoxy)ethanol	2-(2-Butoxyethoxy) ethanol	67.5 mg/m3 / 10 ppm	101.2 mg/m3 / 15 ppm	Not Available	Not Available
Norway regulations on action values and limit values for physical and chemical factors in the work environment and infection risk groups for biological factors (Norwegian)	2-(2-butoxyethoxy)ethanol	2-2(butoksyetoksy)etanol	68 mg/m3 / 10 ppm	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
potassium hydroxide	Potassium hydroxide	0.18 mg/m3	2 mg/m3	54 mg/m3
sodium metasilicate, anhydrous	Sodium metasilicate pentahydrate	6.6 mg/m3	73 mg/m3	440 mg/m3
sodium metasilicate, anhydrous	Sodium silicate; (Sodium metasilicate)	3.8 mg/m3	42 mg/m3	250 mg/m3
2-(2-butoxyethoxy)ethanol	Butoxyethoxy)ethanol, 2-(2-; (Diethylene glycol monobutyl ether)	30 ppm	33 ppm	200 ppm

Ingredient	Original IDLH	Revised IDLH
2-propylheptanol, ethoxylated	Not Available	Not Available
potassium hydroxide	Not Available	Not Available
sodium metasilicate, anhydrous	Not Available	Not Available
primary c9-c11 alcoholethoxylate	Not Available	Not Available
2-(2-butoxyethoxy)ethanol	Not Available	Not Available

MATERIAL DATA

for potassium hydroxide:
The TLV-TWA is protective against respiratory tract irritation produced at higher concentrations

8.2. Exposure controls

8.2.1. Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk.

8.2.2. Personal protection	
Eye and face protection	‣ Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure. ‣ Chemical goggles.whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted. ‣ Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection.
Skin protection	See Hand protection below
Hands/feet protection	‣ Elbow length PVC gloves ‣ When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.
Body protection	See Other protection below
Other protection	‣ Overalls. ‣ PVC Apron. ‣ PVC protective suit may be required if exposure severe.
Thermal hazards	Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the ***computer-generated*** selection:
AQUATUFF

Material	CPI
BUTYL	A
NATURAL+NEOPRENE	A
NEOPRENE	A
NITRILE	A
NITRILE+PVC	A
PVC	A
NATURAL RUBBER	B

* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion
NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -
* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

8.2.3. Environmental exposure controls

See section 12

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid, orange, soluble in water

Physical state	Liquid	**Relative density (Water = 1)**	1.045 - 1.055
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Applicable
pH (as supplied)	13 - 14	**Decomposition temperature**	Not Applicable

Melting point / freezing point (°C)	Not Applicable	**Viscosity (cSt)**	Not Applicable
Initial boiling point and boiling range (°C)	Not Applicable	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	Not Applicable	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Applicable	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Applicable	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Applicable	**Volatile Component (%vol)**	Not Applicable
Vapour pressure (kPa)	Not Applicable	**Gas group**	Not Available
Solubility in water (g/L)	Miscible	**pH as a solution (1%)**	Not Applicable
Vapour density (Air = 1)	Not Applicable	**VOC g/L**	Not Available

9.2. Other information

Not Available

SECTION 10 STABILITY AND REACTIVITY

10.1.Reactivity	See section 7.2
10.2. Chemical stability	▸ Unstable in the presence of incompatible materials. ▸ Product is considered stable. ▸ Hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhaled	Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Inhalation of alkaline corrosives may produce irritation of the respiratory tract with coughing, choking, pain and mucous membrane damage. Pulmonary oedema may develop in more severe cases; this may be immediate or in most cases following a latent period of 5-72 hours. Symptoms may include a tightness in the chest, dyspnoea, frothy sputum, cyanosis and dizziness.
Ingestion	Ingestion of alkaline corrosives may produce immediate pain, and circumoral burns. Mucous membrane corrosive damage is characterised by a white appearance and soapy feel; this may then become brown, oedematous and ulcerated. Profuse salivation with an inability to swallow or speak may also result. Accidental ingestion of the material may be damaging to the health of the individual.
Skin Contact	The material can produce severe chemical burns following direct contact with the skin. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Skin contact with alkaline corrosives may produce severe pain and burns; brownish stains may develop. The corroded area may be soft, gelatinous and necrotic; tissue destruction may be deep. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye	When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation. Direct contact with alkaline corrosives may produce pain and burns. Oedema, destruction of the epithelium, corneal opacification and iritis may occur. In less severe cases these symptoms tend to resolve.
Chronic	Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Gastrointestinal disturbances may also occur. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

AQUATUFF	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
2-propylheptanol, ethoxylated	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
potassium hydroxide	**TOXICITY**	**IRRITATION**
	Oral (rat) LD50: 273 mg/kgE[2]	Eye (rabbit):1mg/24h rinse-moderate
		Skin (human): 50 mg/24h SEVERE
		Skin (rabbit): 50 mg/24h SEVERE
sodium metasilicate, anhydrous	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >5000 mg/kg[1]	Skin (human): 250 mg/24h SEVERE
	Oral (rat) LD50: >1000 mg/kg[2]	Skin (rabbit): 250 mg/24h SEVERE
primary c9-c11 alcoholethoxylate	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >2000 mg/kg[2]	Eye (human): SEVERE
	Dermal (rabbit) LD50: >5000 mg/kg *[2]	Skin: SEVERE
	Oral (rat) LD50: 1378 mg/kg[2]	
	Oral (rat) LD50: 1400 mg/kg *[2]	
	Oral (rat) LD50: 2700 mg/kg *[2]	
2-(2-butoxyethoxy)ethanol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 4120 mg/kg[2]	Eye (rabbit): 20 mg/24h moderate
	Oral (rat) LD50: 5660 mg/kg[2]	Eye (rabbit): 5 mg - SEVERE
Legend:	*1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*	

2-PROPYLHEPTANOL, ETHOXYLATED	No significant acute toxicological data identified in literature search.
POTASSIUM HYDROXIDE	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
primary c9-c11 alcoholethoxylate	Dermal (rabbit): 4000 mg/kg * Somnolence, ataxia, diarrhoea recorded.
2-(2-butoxyethoxy)ethanol	For diethylene glycol monoalkyl ethers and their acetates: This category includes diethylene glycol ethyl ether (DGEE), diethylene glycol propyl ether (DGPE) diethylene glycol butyl ether (DGBE) and diethylene glycol hexyl ether (DGHE) and their acetates. **Acute toxicity:** There are adequate oral, inhalation and/or dermal toxicity studies on the category members. Oral LD50 values in rats for all category members are all > 3000 mg/kg bw, with values generally decreasing with increasing molecular weight.
AQUATUFF & POTASSIUM HYDROXIDE & SODIUM METASILICATE, ANHYDROUS	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.

2-PROPYLHEPTANOL, ETHOXYLATED & primary c9-c11 alcoholethoxylate	Human beings have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents, and other cleaning products . Exposure to these chemicals can occur through ingestion, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that volumes well above a reasonable intake level would have to occur to produce any toxic response.
2-PROPYLHEPTANOL, ETHOXYLATED & primary c9-c11 alcoholethoxylate	Alcohol ethoxylates are according to CESIO (2000) classified as Irritant or Harmful depending on the number of EO-units: EO < 5 gives Irritant (Xi) with R38 (Irritating to skin) and R41 (Risk of serious damage to eyes) EO > 5-15 gives Harmful (Xn) with R22 (Harmful if swallowed) - R38/41 EO > 15-20 gives Harmful (Xn) with R22-41 >20 EO is not classified (CESIO 2000) Oxo-AE, C13 EO10 and C13 EO15, are Irritating (Xi) with R36/38 (Irritating to eyes and skin) . AE are not included in Annex 1 of the list of dangerous substances of the Council Directive 67/548/EEC In general, alcohol ethoxylates (AE) are readily absorbed through the skin of guinea pigs and rats and through the gastrointestinal mucosa of rats. AE are quickly eliminated from the body through the urine, faeces, and expired air (CO2).Orally dosed AE was absorbed rapidly and extensively in rats, and more than 75% of the dose was absorbed.
POTASSIUM HYDROXIDE & SODIUM METASILICATE, ANHYDROUS & primary c9-c11 alcoholethoxylate	The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) thickening of the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.
primary c9-c11 alcoholethoxylate & 2-(2-butoxyethoxy)ethanol	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

Acute Toxicity	⊘	**Carcinogenicity**	⊘
Skin Irritation/Corrosion	✔	**Reproductivity**	⊘
Serious Eye Damage/Irritation	⊘	**STOT - Single Exposure**	⊘
Respiratory or Skin sensitisation	⊘	**STOT - Repeated Exposure**	⊘
Mutagenicity	⊘	**Aspiration Hazard**	⊘

Legend: ✘ *– Data available but does not fill the criteria for classification*
✔ *– Data available to make classification*
⊘ *– Data Not Available to make classification*

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

AQUATUFF

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

2-propylheptanol, ethoxylated

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

potassium hydroxide

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	80mg/L	4
NOEC	96	Fish	56mg/L	2

sodium metasilicate, anhydrous

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	180mg/L	1
EC50	96	Crustacea	160mg/L	1

primary c9-c11 alcoholethoxylate

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	8.5mg/L	4
EC50	48	Crustacea	2.686mg/L	4
EC50	48	Crustacea	5.3mg/L	4
NOEC	720	Fish	0.11-0.28mg/L	2

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
2-(2-butoxyethoxy)ethanol	LC50	96	Fish	488.016mg/L	3
	EC50	48	Crustacea	>100mg/L	1
	EC50	96	Algae or other aquatic plants	>100mg/L	1
	EC50	384	Crustacea	112.547mg/L	3
	NOEC	96	Algae or other aquatic plants	>=100mg/L	1

Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

Prevent, by any means available, spillage from entering drains or water courses.
DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2-(2-butoxyethoxy)ethanol	LOW	LOW

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
2-(2-butoxyethoxy)ethanol	LOW (BCF = 0.46)

12.4. Mobility in soil

Ingredient	Mobility
2-(2-butoxyethoxy)ethanol	LOW (KOC = 10)

12.5.Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not Available	Not Available	Not Available
PBT Criteria fulfilled?	Not Available	Not Available	Not Available

12.6. Other adverse effects

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product / Packaging disposal	- It may be necessary to collect all wash water for treatment before disposal. - In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▸ Recycle wherever possible. ▸ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ▸ Treat and neutralise at an approved treatment plant. ▸ Treatment should involve: Neutralisation with suitable dilute acid followed by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material). ▸ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	NO

Land transport (ADR)

14.1.UN number	1719
14.2.UN proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S. (potassium hydroxide solution)
14.3. Transport hazard class(es)	Class: 8 Subrisk: Not Applicable
14.4.Packing group	III
14.5.Environmental hazard	Not Applicable
14.6. Special precautions for user	Hazard identification (Kemler): 80 Classification code: C5 Hazard Label: 8 Special provisions: 274 Limited quantity: 5 L

Air transport (ICAO-IATA / DGR)

14.1. UN number	1719
14.2. UN proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S. (potassium hydroxide solution)
14.3. Transport hazard class(es)	ICAO/IATA Class: 8 ICAO / IATA Subrisk: Not Applicable ERG Code: 8L
14.4. Packing group	III
14.5. Environmental hazard	Not Applicable
14.6. Special precautions for user	Special provisions: A3A803 Cargo Only Packing Instructions: 856 Cargo Only Maximum Qty / Pack: 60 L Passenger and Cargo Packing Instructions: 852 Passenger and Cargo Maximum Qty / Pack: 5 L Passenger and Cargo Limited Quantity Packing Instructions: Y841 Passenger and Cargo Limited Maximum Qty / Pack: 1 L

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	1719
14.2. UN proper shipping name	Caustic alkali liquid, n.o.s. * (potassium hydroxide solution)
14.3. Transport hazard class(es)	IMDG Class: 8 IMDG Subrisk: Not Applicable
14.4. Packing group	III
14.5. Environmental hazard	Not Applicable
14.6. Special precautions for user	EMS Number: F-A, S-B Special provisions: 223 274 Limited Quantities: 5 L

Inland waterways transport (ADN)

14.1. UN number	1719
14.2. UN proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S. (potassium hydroxide solution)
14.3. Transport hazard class(es)	8 | Not Applicable
14.4. Packing group	III
14.5. Environmental hazard	Not Applicable
14.6. Special precautions for user	Classification code: C5 Special provisions: 274 Limited quantity: 5 L Equipment required: PP, EP Fire cones number: 0

14.7. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

2-PROPYLHEPTANOL, ETHOXYLATED(160875-66-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Not Applicable

POTASSIUM HYDROXIDE(1310-58-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS

European Customs Inventory of Chemical Substances ECICS (English)
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)
European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP: 31
European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI
Norway regulations on action values and limit values for physical and chemical factors in the work environment and infection risk groups for biological factors (Norwegian)

SODIUM METASILICATE, ANHYDROUS(6834-92-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances
European Customs Inventory of Chemical Substances ECICS (English)
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)
European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP: 31
European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

PRIMARY C9-C11 ALCOHOLETHOXYLATE(68439-46-3*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Not Applicable

2-(2-BUTOXYETHOXY)ETHANOL(112-34-5*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)
EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
European Customs Inventory of Chemical Substances ECICS (English)
European Trade Union Confederation (ETUC) Priority List for REACH Authorisation
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)
European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP: 31
European Union (EU) Commission Directive 2006/15/EC establishing a second list of indicative occupational exposure limit values (IOELVs) (Spanish)
European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI
Norway regulations on action values and limit values for physical and chemical factors in the work environment and infection risk groups for biological factors (Norwegian)

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Commission Regulation (EU) 2015/830, Regulation (EC) No 1272/2008 and their amendments

15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier

2-propylheptanol, ethoxylated	160875-66-1	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4, Eye Dam. 1	GHS07, GHS05, Dgr	H302, H318
2	Acute Tox. 4, Eye Dam. 1, Skin Irrit. 2, Eye Irrit. 2	GHS05, Dgr, Wng	H302, H318, H315
2	Eye Dam. 1, Acute Tox. 4	GHS05, Dgr	H318, H302
2	Acute Tox. 4, Eye Dam. 1	GHS05, Dgr	H302, H318

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
potassium hydroxide	1310-58-3	019-002-00-8	01-2119487136-33-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4, Skin Corr. 1A	GHS07, GHS05, Dgr	H302, H314
2	Met. Corr. 1, Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1, Acute Tox. 3, Skin Corr. 1B, Skin Irrit. 2, Asp. Tox. 1, STOT SE 1, Eye Irrit. 2, Skin Corr. 1C, Acute Tox. 1, Flam. Liq. 2, Aquatic Chronic 3	GHS05, Dgr, GHS06, Wng, GHS08, GHS02	H290, H314, H312, H318, H301, H304, H370, H332
1	Skin Corr. 1A	GHS05, Dgr	H314
2	Skin Corr. 1A	GHS05, Dgr	H314

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
sodium metasilicate, anhydrous	6834-92-0	014-010-00-8	01-2119449811-37-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
2	Met. Corr. 1, Skin Corr. 1B, STOT SE 3, Acute Tox. 4, Eye Dam. 1	GHS05, Dgr	H290, H314, H335, H302, H318
1	Skin Corr. 1B, STOT SE 3	GHS07, GHS05, Dgr	H314, H335
2	Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3, Asp. Tox. 1, Eye Irrit. 2, Skin Corr. 1A, Acute Tox. 4	GHS05, Dgr, GHS08	H290, H314, H335, H318, H370, H302

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
primary c9-c11 alcoholethoxylate	68439-46-3*	Not Available	01-2119980051-45-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4, Eye Dam. 1	GHS07, GHS05, Dgr	H302, H318
2	Acute Tox. 4, Eye Dam. 1	GHS05, Dgr	H302, H318
2	Acute Tox. 4, Eye Dam. 1	GHS05, Dgr	H302, H318
1	Acute Tox. 4, Eye Dam. 1	GHS05, Dgr	H302, H318
2	Acute Tox. 4, Eye Dam. 1	GHS05, Dgr	H302, H318
1	Acute Tox. 4, Eye Dam. 1	GHS07, GHS05, Dgr	H302, H318
2	Acute Tox. 4, Eye Dam. 1	GHS05, Dgr	H302, H318
2	Eye Dam. 1, Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 2, Skin Irrit. 2, Eye Irrit. 2, Aquatic Chronic 3, Aquatic Chronic 4	GHS05, Dgr, GHS09, Wng	H318, H302, H315
1	Eye Dam. 1	Dgr	H318
2	Eye Dam. 1	Dgr, GHS05	H318
1	Eye Dam. 1	GHS05, Dgr	H318
2	Eye Dam. 1	GHS05, Dgr	H318
2	Eye Dam. 1, Acute Tox. 4	GHS05, Dgr	H318, H302
2	Eye Dam. 1, Acute Tox. 4, Eye Irrit. 2	GHS05, Dgr, Wng	H318, H302

1	Acute Tox. 4, Eye Dam. 1	GHS07, GHS05, Dgr	H302, H318

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
2-(2-butoxyethoxy)ethanol	112-34-5*	603-096-00-8	01-2119475104-44-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Eye Irrit. 2	GHS07, Wng	H319
2	Eye Irrit. 2, STOT SE 3, Acute Tox. 4, Skin Irrit. 2, STOT SE 2	GHS07, Wng	H319, H336, H302, H312, H332, H314, H335

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

National Inventory	Status
Australia - AICS	Y
Canada - DSL	N (2-propylheptanol, ethoxylated)
Canada - NDSL	N (primary c9-c11 alcoholethoxylate; potassium hydroxide; 2-(2-butoxyethoxy)ethanol; sodium metasilicate, anhydrous; 2-propylheptanol, ethoxylated)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	N (primary c9-c11 alcoholethoxylate; 2-propylheptanol, ethoxylated)
Japan - ENCS	N (primary c9-c11 alcoholethoxylate; potassium hydroxide; 2-(2-butoxyethoxy)ethanol; 2-propylheptanol, ethoxylated)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	N (2-propylheptanol, ethoxylated)
USA - TSCA	Y
Legend:	*Y = All ingredients are on the inventory* *N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)*

SECTION 16 OTHER INFORMATION

CONTACT POINT

- For quotations contact your local Customer Services - http://wssdirectory.wilhelmsen.com/#/customerservices - - Responsible for safety data sheet Wilhelmsen Ships Service AS - Prepared by: Product HSE Manager, - Email: Email: WSS.GLOBAL.SDSINFO@wilhelmsen.com - Telephone: Tel.: +31 10 4877775

Full text Risk and Hazard codes

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H370	Causes damage to organs.

R22	Harmful if swallowed.
R34	Causes burns.
R36	Irritating to eyes.
R37	Irritating to respiratory system.
R38	Irritating to skin.

Other information

DSD / DPD label elements

Relevant risk statements are found in section 2.1

Indication(s) of danger	C

SAFETY ADVICE

S01	Keep locked up.
S02	Keep out of reach of children.
S04	Keep away from living quarters.
S20	When using do not eat or drink.
S21	When using do not smoke.
S23	Do not breathe gas/fumes/vapour/spray.
S26	In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
S28	After contact with skin, wash immediately with plenty of water
S35	This material and its container must be disposed of in a safe way.
S36	Wear suitable protective clothing.
S37	Wear suitable gloves.
S39	Wear eye/face protection.
S40	To clean the floor and all objects contaminated by this material, use water.
S45	In case of accident or if you feel unwell IMMEDIATELY contact Doctor or Poisons Information Centre (show label if possible).
S46	If swallowed, seek medical advice immediately and show this container or label.
S56	Dispose of this material and its container at hazardous or special waste collection point.
S64	If swallowed, rinse mouth with water (only if the person is conscious).

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:
EN 166 Personal eye-protection
EN 340 Protective clothing
EN 374 Protective gloves against chemicals and micro-organisms
EN 13832 Footwear protecting against chemicals
EN 133 Respiratory protective devices

Notes

“This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V and may be discharged into the sea when used to clean cargo holds and external surfaces on ships.”