# AQUATUFF

## Wilhelmsen Ships Service AS

Part Number: **607826 - 607827**
Version No: **10.15**
Safety Data Sheet (Conforms to Annex II of REACH (1907/2006) - Regulation 2020/878)

Issue Date: **19/10/2023**
Print Date: **19/11/2023**
L.REACH.NOR.EN

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

#### 1.1. Product Identifier

| | |
|---|---|
| **Product name** | AQUATUFF |
| **Chemical Name** | Not Applicable |
| **Synonyms** | Product Part Number: 607826 (25 liter), 607827 (210 liter), PR No: 51137 |
| **Proper shipping name** | CAUSTIC ALKALI LIQUID, N.O.S. (potassium hydroxide, solution) |
| **Chemical formula** | Not Applicable |
| **Other means of identification** | 607826 - 607827, 607826, 607827 |

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

| | |
|---|---|
| **Chemical Product Category** | PC35 Washing and cleaning products |
| **Sectors of Use** | SU3 Industrial uses: Uses of substances as such or in preparations* at industrial sites |
| **Relevant identified uses** | - Degreaser - Cleaning agent |
| **Uses advised against** | No specific uses advised against are identified. |

#### 1.3. Details of the manufacturer or 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* Central Warehouse** |
|---|---|---|---|
| **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 Netherlands |
| **Telephone** | +47 67 58 40 00 | Not Available | +31 10 4877 777 |
| **Fax** | Not Available | Not Available | Not Available |
| **Website** | http://www.wilhelmsen.com/ | http://www.wilhelmsen.com | http://www.wilhelmsen.com |
| **Email** | wss.norway.cs@wilhelmsen.com | wss.global.sdsinfo@wilhelmsen.com | wss.rotterdam@wilhelmsen.com |

| | |
|---|---|
| **Registered company name** | **Wilhelmsen Maritime Services** |
| **Address** | PO Box 33 Lysaker Norway NO-1324 Norway |
| **Telephone** | +47 67 58 40 00 |
| **Fax** | +47 67 58 47 30 |
| **Website** | http://www.wilhelmsen.com/ |

**Page 1 continued...**

| | |
|---|---|
| **Email** | wss.info@wilhelmsen.com |

### 1.4. Emergency telephone number

| **Association / Organisation** | **Giftinformasjonssentralen - 24 timer** | **24hrs - Chemwatch** | **Dutch nat. poison centre** |
|---|---|---|---|
| **Emergency telephone numbers** | **+47 22591300** | **+31-10-4877700** | **+ 31 88 7558561** |
| **Other emergency telephone numbers** | **+31-10-4877700** | **+31-10-4877700** | **+ 31 10 4877700** |

| | |
|---|---|
| **Association / Organisation** | **CHEMWATCH EMERGENCY RESPONSE (24/7)** |
| **Emergency telephone numbers** | **+47 23 25 25 84** |
| **Other emergency telephone numbers** | **+61 3 9573 3188** |

**Once connected and if the message is not in your preferred language then please dial 01**

## 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.**

| | |
|---|---|
| **Classification according to regulation (EC) No 1272/2008 [CLP] and amendments [1]** | H290 - Corrosive to Metals Category 1, H314 - Skin Corrosion/Irritation Category 1B |
| ***Legend:*** | *1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 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

### CLP classification (additional)

Not Applicable

### Precautionary statement(s) Prevention

| | |
|---|---|
| **P260** | Do not breathe mist/vapours/spray. |
| **P264** | Wash all exposed external body areas thoroughly after handling. |
| **P280** | Wear protective gloves, protective clothing, eye protection and face protection. |

### 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 [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. |

**Continued...**

### Precautionary statement(s) Storage

| | |
|---|---|
| **P405** | Store locked up. |

### Precautionary statement(s) Disposal

| | |
|---|---|
| **P501** | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |

### 2.3. Other hazards

Ingestion may produce health damage*.

Cumulative effects may result following exposure*.

May produce discomfort of the respiratory system*.

| | |
|---|---|
| **2-(2-butoxyethoxy)ethanol** | Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply) |

## SECTION 3 Composition / information on ingredients

### 3.1.Substances

See 'Composition on ingredients' in Section 3.2

### 3.2.Mixtures

| **1. CAS No<br>2.EC No<br>3.Index No<br>4.REACH No** | **%[weight]** | **Name** | **Classification according to regulation (EC) No 1272/2008 [CLP] and amendments** | **SCL / M-Factor** | **Nanoform Particle Characteristics** |
|---|---|---|---|---|---|
| 1. 1310-58-3<br>2.215-181-3<br>3.019-002-00-8<br>4.Not Available | 1-5 | potassium hydroxide | Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 1A; H302, H314 [2] | Skin Corr. 1A; H314: C ≥ 5 % \| Skin Corr. 1B; H314: 2 % ≤ C < 5 % \| Skin Irrit. 2; H315: 0,5 % ≤ C < 2 % \| Eye Irrit. 2; H319: 0,5 % ≤ C < 2 % | Not Available |
| 1. 68439-46-3*<br>2.Not Available<br>3.Not Available<br>4.Not Available | 1-5 | primary c9-c11 alcoholethoxylate | Serious Eye Damage/Eye Irritation Category 2; H319 [1] | Not Available | Not Available |
| 1. 112-34-5*<br>2.203-961-6<br>3.603-096-00-8<br>4.Not Available | 1-5 | 2-(2-butoxyethoxy)ethanol * | Serious Eye Damage/Eye Irritation Category 2; H319 [1] | Not Available | Not Available |
| 1. 6834-92-0*<br>2.229-912-9<br>3.014-010-00-8<br>4.Not Available | 1-5 | disodium metasilicate | Corrosive to Metals Category 1, Skin Corrosion/Irritation Category 1B, Serious Eye Damage/Eye Irritation Category 1, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3; H290, H314, H318, H335 [1] | Not Available | Not Available |
| 1. 160875-66-1*<br>2.Not Available<br>3.Not Available<br>4.Not Available | 1-5 | fatty alcohol ethoxylates | Acute Toxicity (Oral) Category 4, Serious Eye Damage/Eye Irritation Category 1; H302, H318 [1] | Not Available | Not Available |
| 1. 7732-18-5<br>2.231-791-2<br>3.Not Available<br>4.Not Available | >80 | water | Not Classified [1] | Not Available | Not Available |

| | |
|---|---|
| ***Legend:*** | *1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties* |

## SECTION 4 First aid measures

### 4.1. Description of first aid measures

**Continued...**

| | |
|---|---|
| **Eye Contact** | If this product comes in contact with the eyes:<br>▸ Immediately hold eyelids apart and flush the eye continuously with running water.<br>▸ 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.<br>▸ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.<br>▸ Transport to hospital or doctor without delay.<br>▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| **Skin Contact** | If skin or hair contact occurs:<br>▸ Immediately flush body and clothes with large amounts of water, using safety shower if available.<br>▸ Quickly remove all contaminated clothing, including footwear.<br>▸ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.<br>▸ Transport to hospital, or doctor. |
| **Inhalation** | ▸ If fumes or combustion products are inhaled remove from contaminated area.<br>▸ Lay patient down. Keep warm and rested.<br>▸ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.<br>▸ 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.<br>▸ Transport to hospital, or doctor, without delay.<br>▸ Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema.<br>▸ Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs).<br>▸ 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.<br>▸ Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered.<br>**This must definitely be left to a doctor or person authorised by him/her.**<br>(ICSC13719) |
| **Ingestion** | ▸ For advice, contact a Poisons Information Centre or a doctor at once.<br>▸ Urgent hospital treatment is likely to be needed.<br>▸ If swallowed do **NOT** induce vomiting.<br>▸ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.<br>▸ Observe the patient carefully.<br>▸ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.<br>▸ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.<br>▸ 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

Treat symptomatically.
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

**Continued...**

### 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.<br>‣ Wear full body protective clothing with breathing apparatus.<br>‣ Prevent, by any means available, spillage from entering drains or water course. |
| **Fire/Explosion Hazard** | ‣ Non combustible.<br>‣ Not considered a significant fire risk, however containers may burn. |

## 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.

**Continued...**

| | |
|---|---|
| | ‣ Alert Fire Brigade and tell them location and nature of hazard.<br>‣ 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.<br>‣ Wear protective clothing when risk of exposure occurs.<br>‣ Use in a well-ventilated area. |
| **Fire and explosion protection** | See section 5 |
| **Other information** | ‣ Store in original containers.<br>‣ Keep containers securely sealed.<br>‣ Store in a cool, dry, well-ventilated area.<br>‣ **DO NOT** store near acids, or oxidising agents<br>‣ 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.<br>‣ Plastic pail.<br>‣ Polyliner drum.<br>For low viscosity materials<br>‣ Drums and jerricans must be of the non-removable head type.<br>‣ Where a can is to be used as an inner package, the can must have a screwed enclosure.<br>For materials with a viscosity of at least 2680 cSt. |
| **Storage incompatibility** | ‣ Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.<br>‣ Avoid contact with copper, aluminium and their alloys. |
| **Hazard categories in accordance with Regulation (EC) No 1272/2008** | Not Available |
| **Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of** | Not Available |

| | | | | | | |
|---|---|---|---|---|---|---|
| + | x | o | x | + | + | + |

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

*Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.*

### 7.3. Specific end use(s)

See section 1.2

## SECTION 8 Exposure controls / personal protection

### 8.1. Control parameters

| Ingredient | DNELs<br>Exposure Pattern Worker | PNECs<br>Compartment |
|---|---|---|
| potassium hydroxide | Inhalation 1 mg/m³ (Local, Chronic)<br>*Inhalation 1 mg/m³ (Local, Chronic) ** | Not Available |

**Continued...**

| Ingredient | DNELs<br>Exposure Pattern Worker | PNECs<br>Compartment |
|---|---|---|
| primary c9-c11 alcoholethoxylate | Dermal 2 080 mg/kg bw/day (Systemic, Chronic)<br>Inhalation 294 mg/m³ (Systemic, Chronic)<br>*Dermal 1 250 mg/kg bw/day (Systemic, Chronic) **<br>*Inhalation 87 mg/m³ (Systemic, Chronic) **<br>*Oral 25 mg/kg bw/day (Systemic, Chronic) ** | 0.104 mg/L (Water (Fresh))<br>0.014 mg/L (Water - Intermittent release)<br>0.104 mg/L (Water (Marine))<br>13.7 mg/kg sediment dw (Sediment (Fresh Water))<br>13.7 mg/kg sediment dw (Sediment (Marine))<br>1 mg/kg soil dw (Soil)<br>1.4 mg/L (STP) |
| 2-(2-butoxyethoxy)ethanol | Dermal 24.5 mg/kg bw/day (Systemic, Chronic)<br>Inhalation 8.64 mg/m³ (Systemic, Chronic)<br>Inhalation 67.5 mg/m³ (Local, Chronic)<br>Inhalation 101.2 mg/m³ (Local, Acute)<br>*Dermal 8.75 mg/kg bw/day (Systemic, Chronic) **<br>*Inhalation 1.52 mg/m³ (Systemic, Chronic) **<br>*Oral 0.875 mg/kg bw/day (Systemic, Chronic) ** | 1.1 mg/L (Water (Fresh))<br>11 mg/L (Water - Intermittent release)<br>0.11 mg/L (Water (Marine))<br>4.4 mg/kg sediment dw (Sediment (Fresh Water))<br>0.44 mg/kg sediment dw (Sediment (Marine))<br>0.32 mg/kg soil dw (Soil)<br>56 mg/kg food (Oral) |
| disodium metasilicate | Dermal 1.49 mg/kg bw/day (Systemic, Chronic)<br>Inhalation 6.22 mg/m³ (Systemic, Chronic)<br>Inhalation 2 mg/m³ (Local, Chronic)<br>Inhalation 2 mg/m³ (Local, Acute)<br>*Dermal 0.74 mg/kg bw/day (Systemic, Chronic) **<br>*Inhalation 1.55 mg/m³ (Systemic, Chronic) **<br>*Oral 0.74 mg/kg bw/day (Systemic, Chronic) ** | 7.5 mg/L (Water (Fresh))<br>7.5 mg/L (Water - Intermittent release)<br>1 mg/L (Water (Marine))<br>1000 mg/L (STP) |
| water | Dermal 0.02 mg/kg bw/day (Systemic, Chronic)<br>Inhalation 0.12 mg/m³ (Systemic, Chronic)<br>Inhalation 0.11 mg/m³ (Local, Chronic)<br>Dermal 5 mg/kg bw/day (Systemic, Acute)<br>Inhalation 2.5 mg/m³ (Systemic, Acute)<br>Inhalation 0.33 mg/m³ (Local, Acute)<br>*Dermal 0.35 mg/kg bw/day (Systemic, Chronic) **<br>*Inhalation 0.144 mg/m³ (Systemic, Chronic) **<br>*Oral 0.08 mg/kg bw/day (Systemic, Chronic) **<br>*Inhalation 0.03 mg/m³ (Local, Chronic) **<br>*Dermal 2.5 mg/kg bw/day (Systemic, Acute) **<br>*Inhalation 1.96 mg/m³ (Systemic, Acute) **<br>*Oral 2.5 mg/kg bw/day (Systemic, Acute) **<br>*Inhalation 0.09 mg/m³ (Local, Acute) ** | Not Available |

* Values for General Population

**Occupational Exposure Limits (OEL)**

**INGREDIENT DATA**

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|---|---|---|---|---|---|---|
| Norway regulations on action rvalues a and limif values 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 | Not Available |
| EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs) | 2-(2-butoxyethoxy)ethanol | 2-(2-Butoxyethoxy) ethanol | 10 ppm / 67.5 mg/m3 | 101.2 mg/m3 / 15 ppm | Not Available | Not Available |
| Norway regulations on action rvalues a and limif values physical and chemical factors in the work environment and infection risk groups for biological factors (Norwegian) | 2-(2-butoxyethoxy)ethanol | 2-2(butoksyetoksy)etanol | 10 ppm / 68 mg/m3 | Not Available | Not Available | E |

**Emergency Limits**

| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|---|---|---|---|
| potassium hydroxide | 0.18 mg/m3 | 2 mg/m3 | 54 mg/m3 |
| 2-(2-butoxyethoxy)ethanol | 30 ppm | 33 ppm | 200 ppm |

**Continued...**

| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|---|---|---|---|
| disodium metasilicate | 3.8 mg/m3 | 42 mg/m3 | 250 mg/m3 |

| Ingredient | Original IDLH | Revised IDLH |
|---|---|---|
| potassium hydroxide | Not Available | Not Available |
| primary c9-c11 alcoholethoxylate | Not Available | Not Available |
| 2-(2-butoxyethoxy)ethanol | Not Available | Not Available |
| disodium metasilicate | Not Available | Not Available |
| fatty alcohol ethoxylates | Not Available | Not Available |
| water | Not Available | Not Available |

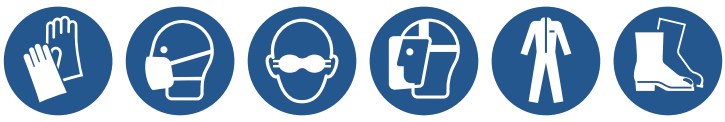
**Occupational Exposure Banding**

| Ingredient | Occupational Exposure Band Rating | Occupational Exposure Band Limit |
|---|---|---|
| primary c9-c11 alcoholethoxylate | E | ≤ 0.1 ppm |
| disodium metasilicate | E | ≤ 0.01 mg/m³ |
| fatty alcohol ethoxylates | E | ≤ 0.1 ppm |
| ***Notes:*** | *Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.* | |

**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.<br>The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process is done to reduce the risk. |
| **8.2.2. Individual protection measures, such as personal protective equipment** |  |
| **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.<br>‣ Chemical goggles. Whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted. |
| **Skin protection** | See Hand protection below |
| **Hands/feet protection** | ‣ Elbow length PVC gloves<br>‣ 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.<br>‣ PVC Apron.<br>‣ PVC protective suit may be required if exposure severe. |

### 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 |
| NEOPRENE | A |

### Respiratory protection

Type -P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|---|---|---|---|

**Continued...**

| | |
|---|---|
| NATURAL RUBBER | C |
| NATURAL+NEOPRENE | C |
| NITRILE | C |
| NITRILE+PVC | C |
| PVA | C |
| PVC | C |
| VITON | C |

* 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.

| | | | |
|---|---|---|---|
| up to 10 x ES | -AUS P2 | - | -PAPR-AUS / Class 1 P2 |
| up to 50 x ES | - | -AUS / Class 1 P2 | - |
| up to 100 x ES | - | -2 P2 | -PAPR-2 P2 ^ |

^ - Full-face
A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

### 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 (°C)** | 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 BuAC = 1 | **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** | Miscible | **pH as a solution (1%)** | Not Applicable |
| **Vapour density (Air = 1)** | Not Applicable | **VOC g/L** | Not Available |
| **Nanoform Solubility** | Not Available | **Nanoform Particle Characteristics** | Not Available |
| **Particle Size** | Not Available | | |

### 9.2. Other information

Not Available

## SECTION 10 Stability and reactivity

| | |
|---|---|
| **10.1.Reactivity** | See section 7.2 |

**Continued...**

| | |
|---|---|
| **10.2. Chemical stability** | ‣ Unstable in the presence of incompatible materials.<br>‣ Product is considered stable.<br>‣ 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 hazard classes as defined in Regulation (EC) No 1272/2008

| | |
|---|---|
| **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.<br>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.<br>Not normally a hazard due to non-volatile nature of product |
| **Ingestion** | Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.<br>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. |
| **Skin Contact** | The material can produce severe chemical burns following direct contact with the skin.<br><br>Skin contact is not thought to produce harmful health effects (as classified under EC Directives using animal models). Systemic harm, however, has been identified following exposure of animals by at least one other route and the material may still produce health damage following entry through wounds, lesions or abrasions. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.<br>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.<br>Open cuts, abraded or irritated skin should not be exposed to this material<br>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.<br>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.<br>Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems.<br>Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. |

| | | |
|---|---|---|
| **AQUATUFF** | **TOXICITY** | **IRRITATION** |
| | Not Available | Not Available |
| **potassium hydroxide** | **TOXICITY** | **IRRITATION** |
| | Oral (Rat) LD50: 273 mg/kg[2] | Eye (rabbit):1mg/24h rinse-moderate |
| | | Skin (human): 50 mg/24h SEVERE |
| | | Skin (rabbit): 50 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] | Eye: adverse effect observed (irritating)[1] |
| | Oral (Rat) LD50: 1378 mg/kg[2] | Skin: no adverse effect observed (not irritating)[1] |

**Continued...**

| | | |
|---|---|---|
| | Oral (Rat) LD50: 1400 mg/kg *[2] | Skin: SEVERE |
| | 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 |
| **disodium metasilicate** | **TOXICITY** | **IRRITATION** |
| | Oral (Rat) LD50: 1153 mg/kg[2] | Skin (human): 250 mg/24h SEVERE |
| | | Skin (rabbit): 250 mg/24h SEVERE |
| **fatty alcohol ethoxylates** | **TOXICITY** | **IRRITATION** |
| | Not Available | Not Available |
| **water** | **TOXICITY** | **IRRITATION** |
| | Oral (Rat) LD50: >90000 mg/kg[2] | Not Available |
| ***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* | |

| | |
|---|---|
| **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** | 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.<br>Alcohol ethoxylates are according to CESIO (2000) classified as Irritant or Harmful depending on the number of EO-units:<br>EO < 5 gives Irritant (Xi) with R38 (Irritating to skin) and R41 (Risk of serious damage to eyes)<br>EO > 5-15 gives Harmful (Xn) with R22 (Harmful if swallowed) - R38/41<br>EO > 15-20 gives Harmful (Xn) with R22-41<br>>20 EO is not classified (CESIO 2000)<br>Oxo-AE, C13 EO10 and C13 EO15, are Irritating (Xi) with R36/38 (Irritating to eyes and skin) .<br>AE are not included in Annex 1 of the list of dangerous substances of the Council Directive 67/548/EEC<br><br>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. When applied to the skin of humans, the doses were absorbed slowly and incompletely (50% absorbed in 72 hours). Dermal (rabbit): 4000 mg/kg * Somnolence, ataxia, diarrhoea recorded. |
| **2-(2-butoxyethoxy)ethanol** | For diethylene glycol monoalkyl ethers and their acetates:<br>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.<br>**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. Four to eight hour acute inhalation toxicity studies were conducted for all category members except DGPE in rats at the highest vapour concentrations achievable. |
| **WATER** | No significant acute toxicological data identified in literature search. |
| **AQUATUFF & POTASSIUM HYDROXIDE & disodium metasilicate** | Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. |
| **POTASSIUM HYDROXIDE & primary c9-c11 alcoholethoxylate & disodium metasilicate** | 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.<br>Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.<br>Prolonged contact is unlikely, given the severity of response, but repeated exposures may produce severe ulceration. |
| **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** | ✗ |

**Continued...**

| | | | |
|---|---|---|---|
| **Serious Eye Damage/Irritation** | ✗ | **STOT - Single Exposure** | ✗ |
| **Respiratory or Skin sensitisation** | ✗ | **STOT - Repeated Exposure** | ✗ |
| **Mutagenicity** | ✗ | **Aspiration Hazard** | ✗ |

***Legend:*** ✗ *– Data either not available or does not fill the criteria for classification*
✔ *– Data available to make classification*

### 11.2 Information on other hazards

### 11.2.1. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

### 11.2.2. Other information

See Section 11.1

## SECTION 12 Ecological information

### 12.1. Toxicity

**AQUATUFF**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| Not Available | Not Available | Not Available | Not Available | Not Available |

**potassium hydroxide**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| LC50 | 96h | Fish | 80mg/l | 2 |
| NOEC(ECx) | 24h | Fish | 28mg/l | 2 |

**primary c9-c11 alcoholethoxylate**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| EC50 | 48h | Crustacea | 2.217-3.523mg/l | 4 |
| EC50 | 96h | Algae or other aquatic plants | 1.4mg/l | 2 |
| LC50 | 96h | Fish | 7mg/l | Not Available |
| NOEC(ECx) | 720h | Fish | 0.11-0.28mg/l | 2 |

**2-(2-butoxyethoxy)ethanol**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| EC50 | 72h | Algae or other aquatic plants | 1101mg/l | 2 |
| EC50 | 48h | Crustacea | >100mg/l | 1 |
| EC50 | 96h | Algae or other aquatic plants | >100mg/l | 1 |
| LC50 | 96h | Fish | 1300mg/l | 2 |
| NOEC(ECx) | 96h | Algae or other aquatic plants | >=100mg/l | 1 |

**disodium metasilicate**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| EC50 | 72h | Algae or other aquatic plants | 207mg/l | 2 |
| EC50 | 48h | Crustacea | 22.94-49.01mg/l | 4 |
| LC50 | 96h | Fish | 180mg/l | 1 |
| EC50(ECx) | 48h | Crustacea | 22.94-49.01mg/l | 4 |

**fatty alcohol ethoxylates**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| Not Available | Not Available | Not Available | Not Available | Not Available |

**water**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| Not Available | Not Available | Not Available | Not Available | Not Available |

***Legend:*** *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 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*

**Continued...**

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 |
| water | 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 | ✗ | ✗ | ✗ |
| vPvB | ✗ | ✗ | ✗ |

| | |
|---|---|
| PBT Criteria fulfilled? | No |
| vPvB | No |

### 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

### 12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

## SECTION 13 Disposal considerations

### 13.1. Waste treatment methods

| | |
|---|---|
| **Product / Packaging disposal** | ▸ Containers may still present a chemical hazard/ danger when empty.<br>▸ Return to supplier for reuse/ recycling if possible.<br>Otherwise:<br>▸ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.<br>▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains.<br>▸ It may be necessary to collect all wash water for treatment before disposal.<br>▸ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.<br>▸ Recycle wherever possible.<br>▸ 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.<br>▸ Treat and neutralise at an approved treatment plant. |
| **Waste treatment options** | Not Available |
| **Sewage disposal options** | Not Available |

## SECTION 14 Transport information

### Labels Required

| | |
|---|---|
| |  |

**Continued...**

| | |
|---|---|
| **Marine Pollutant** | NO |

## Land transport (ADR-RID)

| | |
|---|---|
| 14.1. **UN number or ID 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<br>Subsidiary Hazard: Not Applicable |
| 14.4. **Packing group** | III |
| 14.5. **Environmental hazard** | Not Applicable |
| 14.6. **Special precautions for user** | Hazard identification (Kemler): 80<br>Classification code: C5<br>Hazard Label: 8<br>Special provisions: 274<br>Limited quantity: 5 L<br>Tunnel Restriction Code: E |

## 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<br>ICAO / IATA Subsidiary Hazard: Not Applicable<br>ERG Code: 8L |
| 14.4. **Packing group** | III |
| 14.5. **Environmental hazard** | Not Applicable |
| 14.6. **Special precautions for user** | Special provisions: A3 A803<br>Cargo Only Packing Instructions: 856<br>Cargo Only Maximum Qty / Pack: 60 L<br>Passenger and Cargo Packing Instructions: 852<br>Passenger and Cargo Maximum Qty / Pack: 5 L<br>Passenger and Cargo Limited Quantity Packing Instructions: Y841<br>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<br>IMDG Subsidiary Hazard: 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<br>Special provisions: 223 274<br>Limited Quantities: 5 L |

**Continued...**

### 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<br>Special provisions: 274<br>Limited quantity: 5 L<br>Equipment required: PP, EP<br>Fire cones number: 0 |

### 14.7. Maritime transport in bulk according to IMO instruments

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

Not Applicable

### 14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name | Group |
|---|---|
| potassium hydroxide | Not Available |
| primary c9-c11 alcoholethoxylate | Not Available |
| 2-(2-butoxyethoxy)ethanol | Not Available |
| disodium metasilicate | Not Available |
| fatty alcohol ethoxylates | Not Available |
| water | Not Available |

### 14.7.3. Transport in bulk in accordance with the IGC Code

| Product name | Ship Type |
|---|---|
| potassium hydroxide | Not Available |
| primary c9-c11 alcoholethoxylate | Not Available |
| 2-(2-butoxyethoxy)ethanol | Not Available |
| disodium metasilicate | Not Available |
| fatty alcohol ethoxylates | Not Available |
| water | Not Available |

## SECTION 15 Regulatory information

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

**potassium hydroxide is found on the following regulatory lists**

Europe EC Inventory
European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI
sNorway regulations on action values and limit values for physical and chemical factors in the work environment and infection risk groups for biological fact (Norwegian)

**primary c9-c11 alcoholethoxylate is found on the following regulatory lists**

Not Applicable

**2-(2-butoxyethoxy)ethanol is found on the following regulatory lists**

EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)

**Continued...**

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

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

sNorway regulations on action values and limit values for physical and chemical factors in the work environment and infection risk groups for biological fact (Norwegian)

**disodium metasilicate is found on the following regulatory lists**

EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

**fatty alcohol ethoxylates is found on the following regulatory lists**

Not Applicable

**water is found on the following regulatory lists**

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

## Additional Regulatory Information

Not Applicable

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

## Information according to 2012/18/EU (Seveso III):

| | |
|---|---|
| **Seveso Category** | Not Available |

## 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## National Inventory Status

| National Inventory | Status |
|---|---|
| Australia - AIIC / Australia Non-Industrial Use | Yes |
| Canada - DSL | No (fatty alcohol ethoxylates) |
| Canada - NDSL | No (potassium hydroxide; primary c9-c11 alcoholethoxylate; 2-(2-butoxyethoxy)ethanol; disodium metasilicate; fatty alcohol ethoxylates; water) |
| China - IECSC | Yes |
| Europe - EINEC / ELINCS / NLP | No (primary c9-c11 alcoholethoxylate; fatty alcohol ethoxylates) |
| Japan - ENCS | Yes |
| Korea - KECI | Yes |
| New Zealand - NZIoC | Yes |
| Philippines - PICCS | Yes |
| USA - TSCA | Yes |
| Taiwan - TCSI | Yes |
| Mexico - INSQ | No (fatty alcohol ethoxylates) |
| Vietnam - NCI | Yes |
| Russia - FBEPH | No (primary c9-c11 alcoholethoxylate; fatty alcohol ethoxylates) |
| ***Legend:*** | *Yes = All CAS declared ingredients are on the inventory*<br>*No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.* |

## SECTION 16 Other information

| | |
|---|---|
| **Revision Date** | 19/10/2023 |

**Continued...**

| | |
|---|---|
| **Initial Date** | 25/03/2018 |

**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: Compliance Manager, - Email: Email: wss.global.sdsinfo@wilhelmsen.com - Telephone: Tel.: +47 67584000

## Full text Risk and Hazard codes

| | |
|---|---|
| **H302** | Harmful if swallowed. |
| **H318** | Causes serious eye damage. |
| **H319** | Causes serious eye irritation. |
| **H335** | May cause respiratory irritation. |

## SDS Version Summary

| Version | Date of Update | Sections Updated |
|---|---|---|
| 9.15 | 19/10/2023 | Hazards identification - Classification, Composition / information on ingredients - Ingredients, Identification of the substance / mixture and of the company / undertaking - Synonyms, Identification of the substance / mixture and of the company / undertaking - Use |

## Other information

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

## Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

| Classification according to regulation (EC) No 1272/2008 [CLP] and amendments | Classification Procedure |
|---|---|
| Corrosive to Metals Category 1, H290 | Expert judgement |
| Skin Corrosion/Irritation Category 1B, H314 | Expert judgement |

## 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.”**

Powered by AuthorITe, from Chemwatch.

**end of SDS**