

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

**Product name** : Topmatic Hero  
**Product code** : 107925E  
**Product use** : Machine Warewashing Detergent  
**Product is for professional use only**

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

| Identified uses                     |
|-------------------------------------|
| Dishwash product. Automatic process |
| Uses advised against                |
| None known.                         |

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer/ Distributor/ Importer** : Ecolab Ltd.  
David Murray John Building  
UK-SN1 1NH Swindon, Wiltshire  
England  
Tel +44 (0)1793 511221  
Fax +44 (0)1793 618552  
CCS@ecolab.com

**1.4 Emergency telephone number****National advisory body/Poison Centre**

**Telephone number** : 0870 600 6266 (This service is only available to health professionals)

**Manufacturer/ Distributor/ Importer**

**Telephone number** : 01793 511221  
Food & Beverage, Institutional, Agri - 01793 548888  
Healthcare Leeds - 0113 2322480  
Healthcare Swansea - 01252 717616

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

**Product definition** : Mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Skin Corr. 1A, H314

**Classification according to Directive 1999/45/EC [DPD]**

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : C; R35  
R31

**Human health hazards** : Causes severe burns. Contact with acids liberates toxic gas.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

**2.2 Label elements**

## SECTION 2: Hazards identification

Hazard pictograms :



Signal word

: Danger

Contains

: Potassium Hydroxide  
Sodium hypochlorite

Hazard statements

: H314 Causes severe skin burns and eye damage.

### Precautionary statements

Prevention

: P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.

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.  
P310 - Immediately call a POISON CENTER or physician.

Ingredients of unknown ecotoxicity

: Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 11%

Supplemental label elements

: Contact with acids liberates toxic gas.

### 2.3 Other hazards

Other hazards which do not result in classification

: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

| Product/ingredient name | Identifiers                                                                         | %     | <u>Classification</u>   |                                                              | Type    |
|-------------------------|-------------------------------------------------------------------------------------|-------|-------------------------|--------------------------------------------------------------|---------|
|                         |                                                                                     |       | 67/548/EEC              | Regulation (EC) No. 1272/2008 [CLP]                          |         |
| Phosphates              | REACH #: 01-2119485639-19<br>EC: 237-574-9<br>CAS: 13845-36-8                       | 10-15 | Not classified.         | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319                    | [1]     |
| Potassium Hydroxide     | REACH #: 01-2119487136-33<br>EC: 215-181-3<br>CAS: 1310-58-3<br>Index: 019-002-00-8 | 7-25  | Xn; R22<br>C; R35       | Acute Tox. 3, H301<br>Skin Corr. 1A, H314                    | [1] [2] |
| Sodium metasilicate     | REACH #: 01-2119449811-37<br>EC: 229-912-9<br>CAS: 6834-92-0<br>Index: 014-010-00-8 | 5-10  | C; R34<br>Xi; R37       | Met. Corr. 1, H290<br>Skin Corr. 1B, H314<br>STOT SE 3, H335 | [1]     |
| Sodium hypochlorite     | REACH #: 01-2119488154-34<br>EC: 231-668-3<br>CAS: 7681-52-9<br>Index: 017-011-00-1 | 1-2.5 | C; R34<br>R31<br>N; R50 | Skin Corr. 1B, H314<br>Aquatic Acute 1, H400                 | [1]     |

**SECTION 3: Composition/information on ingredients**

|  |  |  |                                                                         |                                                                             |  |
|--|--|--|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|--|
|  |  |  | <b>See section 16 for the full text of the R-phrases declared above</b> | <b>See Section 16 for the full text of the H statements declared above.</b> |  |
|--|--|--|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|--|

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing before reusing. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**4.2 Most important symptoms and effects, both acute and delayed****Potential acute health effects**

- Eye contact** : Causes serious eye damage.

## **SECTION 4: First aid measures**

- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Causes severe burns.
- Ingestion** : May cause burns to mouth, throat and stomach.

### **Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### **4.3 Indication of any immediate medical attention and special treatment needed**

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical, or CO<sub>2</sub>.
- Unsuitable extinguishing media** : None known.

### **5.2 Special hazards arising from the substance or mixture**

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : Decomposition products may include the following materials:  
phosphorus oxides  
halogenated compounds  
metal oxide/oxides

### **5.3 Advice for firefighters**

- Special precautions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### **6.3 Methods and materials for containment and cleaning up**

- Small spill:** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilt product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## **SECTION 7: Handling and storage**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### **7.1 Precautions for safe handling**

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- 7.2 Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: -10 to 30°C (14 to 86°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

**SECTION 7: Handling and storage****7.3 Specific end use(s)**

**Recommendations** : Not applicable.  
**Industrial sector specific solutions** : Not applicable.

**SECTION 8: Exposure controls/personal protection**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**8.1 Control parameters****Occupational exposure limits**

| Product/ingredient name | Exposure limit values                                                                           |
|-------------------------|-------------------------------------------------------------------------------------------------|
| Potassium Hydroxide     | <b>EH40/2005 WELs (United Kingdom (UK), 8/2007).</b><br>STEL: 2 mg/m <sup>3</sup> 15 minute(s). |

**Derived effect levels**

No DNELs available.

**Predicted effect concentrations**

No PNECs available.

**8.2 Exposure controls**

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Engineering controls may be required to control the primary or secondary risks associated with this product.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection (EN 166)** : Highly recommended : Goggles, face shield, or other full-face protection.

**Skin protection**

**Hand protection (EN 374)** : Highly recommended : Gloves - butyl rubber , nitrile rubber ( Breakthrough time: 1 - 4 hours ) .

**Body protection (EN 14605)** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection (EN 143, 14387)** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Thermal hazards** : Not applicable.

**SECTION 8: Exposure controls/personal protection**

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****Appearance**

|                                                     |                                                                        |
|-----------------------------------------------------|------------------------------------------------------------------------|
| <b>Physical state</b>                               | : Liquid.                                                              |
| <b>Colour</b>                                       | : Yellowish [Light]                                                    |
| <b>Odour</b>                                        | : chlorine                                                             |
| <b>Odour threshold</b>                              | : Not applicable and/or not determined for the mixture.                |
| <b>pH</b>                                           | : 13.7 to 14 [Conc. (% w/w): 100%]                                     |
| <b>Melting point/freezing point</b>                 | : Not applicable and/or not determined for the mixture.                |
| <b>Initial boiling point and boiling range</b>      | : Not applicable and/or not determined for the mixture.                |
| <b>Flash point</b>                                  | : > 100°C                                                              |
| <b>Evaporation rate</b>                             | : Not applicable and/or not determined for the mixture.                |
| <b>Flammability (solid, gas)</b>                    | : Not applicable and/or not determined for the mixture.                |
| <b>Burning time</b>                                 | : Not applicable and/or not determined for the mixture.                |
| <b>Burning rate</b>                                 | : Not applicable and/or not determined for the mixture.                |
| <b>Upper/lower flammability or explosive limits</b> | : Not applicable and/or not determined for the mixture.                |
| <b>Vapour pressure</b>                              | : Not applicable and/or not determined for the mixture.                |
| <b>Vapour density</b>                               | : Not applicable and/or not determined for the mixture.                |
| <b>Relative density</b>                             | : 1.33 to 1.47                                                         |
| <b>Solubility(ies)</b>                              | : Easily soluble in the following materials: cold water and hot water. |
| <b>Partition coefficient: n-octanol/water</b>       | : Not applicable and/or not determined for the mixture.                |
| <b>Auto-ignition temperature</b>                    | : Not applicable and/or not determined for the mixture.                |
| <b>Decomposition temperature</b>                    | : Not applicable and/or not determined for the mixture.                |
| <b>Viscosity</b>                                    | : Not applicable and/or not determined for the mixture.                |
| <b>Explosive properties</b>                         | : Not applicable.                                                      |
| <b>Oxidising properties</b>                         | : Yes.                                                                 |

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Hazardous reactions or instability may occur under certain conditions of storage or use.  
Conditions may include the following:  
contact with acids  
Reactions may include the following:  
liberation of toxic gas

**SECTION 10: Stability and reactivity****10.4 Conditions to avoid** : No specific data.**10.5 Incompatible materials** : Extremely reactive or incompatible with the following materials: acids.**10.6 Hazardous decomposition products** : Contact with acids liberates toxic gas.**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

| Product/ingredient name | Result                 | Species | Dose                     | Exposure |
|-------------------------|------------------------|---------|--------------------------|----------|
| Phosphates              | LD50 Oral              | Rat     | >2000 mg/kg              | -        |
| Potassium Hydroxide     | LD50 Oral              | Rat     | 273 mg/kg                | -        |
| Sodium metasilicate     | LD50 Oral              | Rat     | 1153 mg/kg               | -        |
| Sodium hypochlorite     | LC50 Inhalation Vapour | Rat     | >10500 mg/m <sup>3</sup> | 1 hours  |
|                         | LD50 Dermal            | Rabbit  | >10000 mg/kg             | -        |
|                         | LD50 Oral              | Rat     | 8200 mg/kg               | -        |

**Conclusion/Summary** : No known significant effects or critical hazards.**Acute toxicity estimates**

| Route | ATE value    |
|-------|--------------|
| Oral  | 2488.6 mg/kg |

**Irritation/Corrosion**

| Product/ingredient name | Result                   | Species    | Score | Exposure                | Observation |
|-------------------------|--------------------------|------------|-------|-------------------------|-------------|
| Potassium Hydroxide     | Eyes - Moderate irritant | Rabbit     | -     | 24 hours 1 milligrams   | -           |
|                         | Skin - Severe irritant   | Guinea pig | -     | 24 hours 50 milligrams  | -           |
|                         | Skin - Severe irritant   | Human      | -     | 24 hours 50 milligrams  | -           |
|                         | Skin - Severe irritant   | Rabbit     | -     | 24 hours 50 milligrams  | -           |
| Sodium metasilicate     | Skin - Moderate irritant | Guinea pig | -     | 24 hours 250 milligrams | -           |
|                         | Skin - Severe irritant   | Human      | -     | 24 hours 250 milligrams | -           |
|                         | Skin - Severe irritant   | Rabbit     | -     | 24 hours 250 milligrams | -           |
| Sodium hypochlorite     | Eyes - Mild irritant     | Rabbit     | -     | 1.31 milligrams         | -           |
|                         | Eyes - Moderate irritant | Rabbit     | -     | 10 milligrams           | -           |

**Conclusion/Summary** : No known significant effects or critical hazards.**Sensitiser****Conclusion/Summary** : No known significant effects or critical hazards.**Mutagenicity****Conclusion/Summary** : No known significant effects or critical hazards.**Carcinogenicity****Conclusion/Summary** : No known significant effects or critical hazards.**Reproductive toxicity****Conclusion/Summary** : No known significant effects or critical hazards.**Teratogenicity**

**SECTION 11: Toxicological information**

**Conclusion/Summary** : No known significant effects or critical hazards.

**Specific target organ toxicity (single exposure)**

| Product/ingredient name | Category   | Route of exposure | Target organs                |
|-------------------------|------------|-------------------|------------------------------|
| Sodium metasilicate     | Category 3 | Not determined    | Respiratory tract irritation |

**Specific target organ toxicity (repeated exposure)**

No known significant effects or critical hazards.

**Aspiration hazard**

No known significant effects or critical hazards.

**Information on the likely routes of exposure** : No known significant effects or critical hazards.

**Potential acute health effects**

- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
- Ingestion** : May cause burns to mouth, throat and stomach.
- Skin contact** : Causes severe burns.
- Eye contact** : Causes serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Inhalation** : No specific data.
- Ingestion** : Adverse symptoms may include the following:  
stomach pains
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness

**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure**

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

**Long term exposure**

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

**Potential chronic health effects**

- Conclusion/Summary** : No known significant effects or critical hazards.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.
- Other information** : No known significant effects or critical hazards.

**SECTION 12: Ecological information****12.1 Toxicity**

| Product/ingredient name | Result                | Species | Exposure |
|-------------------------|-----------------------|---------|----------|
| Potassium Hydroxide     | Acute LC50 80 mg/L    | Fish    | 96 hours |
| Sodium metasilicate     | Acute EC50 4857 mg/L  | Daphnia | 48 hours |
|                         | Acute LC50 2320 mg/L  | Fish    | 96 hours |
| Sodium hypochlorite     | Acute EC50 0.04 mg/L  | Daphnia | 48 hours |
|                         | Acute LC50 0.059 mg/L | Fish    | 96 hours |

**Conclusion/Summary** : No known significant effects or critical hazards.

**12.2 Persistence and degradability**

**Conclusion/Summary** : Mainly inorganic product. Biodegradation information refers only to organic component(s).

**12.3 Bioaccumulative potential**

**Conclusion/Summary** : Not determined for the mixture.

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not determined for the mixture.

**Mobility** : Not determined for the mixture.

**12.5 Results of PBT and vPvB assessment**

**PBT** : Not applicable.

**vPvB** : Not applicable.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods****Product**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**Hazardous waste** : Yes.

**European waste catalogue (EWC)**

| Waste code | Waste designation |
|------------|-------------------|
| 20 01 15*  | alkalines         |

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled.

**SECTION 13: Disposal considerations**

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

|                                          | <b>ADR/RID</b>                                                                         | <b>ADN/ADNR</b>                                                                        | <b>IMDG</b>                                                                             | <b>IATA</b>                                                                              |
|------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>14.1 UN number</b>                    | UN1814                                                                                 | UN1814                                                                                 | UN1814                                                                                  | UN1814                                                                                   |
| <b>14.2 UN proper shipping name</b>      | POTASSIUM HYDROXIDE SOLUTION                                                           | POTASSIUM HYDROXIDE SOLUTION                                                           | POTASSIUM HYDROXIDE SOLUTION                                                            | Potassium hydroxide solution                                                             |
| <b>14.3 Transport hazard class(es)</b>   | 8<br> | 8<br> | 8<br> | 8<br> |
| <b>14.4 Packing group</b>                | II                                                                                     | II                                                                                     | II                                                                                      | II                                                                                       |
| <b>14.5 Environmental hazards</b>        | No.                                                                                    | No.                                                                                    | No.                                                                                     | No.                                                                                      |
| <b>14.6 Special precautions for user</b> | None.                                                                                  | None.                                                                                  | None.                                                                                   | None.                                                                                    |

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

**SECTION 15: Regulatory information**

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

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XIV - List of substances subject to authorisation**

**Substances of very high concern**

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Other EU regulations**

**Ingredient declaration according to detergent regulation 648/2004/EC:**

≥15 - <30% phosphates  
<5% chlorine-based bleaching agents

**National regulations**

**SECTION 15: Regulatory information****United Kingdom (UK)**

The Chemicals (Hazard Information and Packaging for Supply) Regulations.

The Control of Substances Hazardous to Health Regulations.

Health and Safety at Work Act.

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

**SECTION 16: Other information**

▣ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ADN/ADNR = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
 ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DNEL = Derived No Effect Level  
 DPD = Dangerous Preparations Directive [1999/45/EC]  
 EC = European Commission  
 EUH statement = CLP-specific Hazard statement  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 OEL = Occupational Exposure Limit  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]  
 RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
 REACH # = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

| Classification                                |                       | Justification                                                                                |
|-----------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------|
| Skin Corr. 1A, H314                           |                       | On basis of test data                                                                        |
| <b>Full text of abbreviated H statements</b>  | : H290                | May be corrosive to metals.                                                                  |
|                                               | H301                  | Toxic if swallowed.                                                                          |
|                                               | H314                  | Causes severe skin burns and eye damage.                                                     |
|                                               | H315                  | Causes skin irritation.                                                                      |
|                                               | H319                  | Causes serious eye irritation.                                                               |
|                                               | H335                  | May cause respiratory irritation.                                                            |
|                                               | H400                  | Very toxic to aquatic life.                                                                  |
| <b>Full text of classifications [CLP/GHS]</b> | : Acute Tox. 3, H301  | ACUTE TOXICITY: ORAL - Category 3                                                            |
|                                               | Aquatic Acute 1, H400 | AQUATIC TOXICITY (ACUTE) - Category 1                                                        |
|                                               | Eye Irrit. 2, H319    | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2                                              |
|                                               | Met. Corr. 1, H290    | CORROSIVE TO METALS - Category 1                                                             |
|                                               | Skin Corr. 1A, H314   | SKIN CORROSION/IRRITATION - Category 1A                                                      |
|                                               | Skin Corr. 1B, H314   | SKIN CORROSION/IRRITATION - Category 1B                                                      |
|                                               | Skin Irrit. 2, H315   | SKIN CORROSION/IRRITATION - Category 2                                                       |
|                                               | STOT SE 3, H335       | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3 |

## **SECTION 16: Other information**

**Full text of abbreviated R phrases** : R22- Harmful if swallowed.  
R34- Causes burns.  
R35- Causes severe burns.  
R37- Irritating to respiratory system.  
R31- Contact with acids liberates toxic gas.  
R50- Very toxic to aquatic organisms.

**Full text of classifications [DSD/DPD]** : C - Corrosive  
Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment

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