

# SAFETY DATA SHEET

**ECOLAB**<sup>®</sup>

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II (453/2010) - Europe

## Klercide-CR Biocide X Unit Dose Concentrate

Version : 1

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

#### 1.1 Product identifier

**Product name** : Klercide-CR Biocide X Unit Dose Concentrate  
**Product code** : 111053E  
**Product use** : Surface Disinfectant  
**Product is for professional use only**

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

| Identified uses                      |
|--------------------------------------|
| Surface disinfectant. Manual process |

#### 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

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

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

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

**Classification** : Xn; R22  
C; R34  
R43  
N; R50/53

**Physical/chemical hazards** : Not applicable.

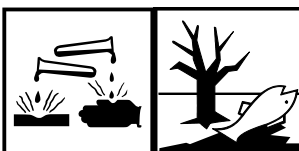
**Human health hazards** : Harmful if swallowed. Causes burns. May cause sensitisation by skin contact.

**Environmental hazards** : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See section 16 for the full text of the R-phrases declared above

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

#### 2.2 Label elements

**Hazard symbol or symbols** : 

**Date of issue/Date of revision** : 4 May 2011

1/11

## Klercide-CR Biocide X Unit Dose Concentrate

### SECTION 2: Hazards identification

|                              |   |
|------------------------------|---|
| <b>Indication of danger</b>  | : Corrosive, Dangerous for the environment  |
| <b>Hazardous ingredients</b> | : Benzalkonium chloride<br>Polyhexamethylene biguanide hydrochloride  |
| <b>Risk phrases</b>          | : R22- Harmful if swallowed.<br>R34- Causes burns.<br>R43- May cause sensitisation by skin contact.<br>R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.   |
| <b>Safety phrases</b>        | : S2- Keep out of the reach of children.<br>S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.<br>S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.<br>S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |

#### 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                      | %     | Classification  |   | Type |
|---|----------------------------------|-------|---|---|------|
|   |                                  |       | 67/548/EEC  | Regulation (EC) No. 1272/2008 [CLP]   |      |
| Benzalkonium chloride                     | EC: 270-325-2<br>CAS: 68424-85-1 | 25-35 | Xn; R22<br>C; R34<br>N; R50   | Acute Tox. 4, H302<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Aquatic Acute 1, H400  | [1]  |
| Polyhexamethylene biguanide hydrochloride | CAS: 91403-50-8                  | 10-20 | Xi; R36/38<br>R43<br>N; R51/53<br><br><b>See section 16 for the full text of the R-phrases declared above</b> | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 2, H411<br><br><b>See Section 16 for the full text of the H statements declared above.</b> | [1]  |

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. 1207/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1207/2006, Annex XIII

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

|                    |   |
|--------------------|---|
| <b>Eye contact</b> | : Get medical attention immediately. 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 10 minutes. Chemical burns must be treated promptly by a physician. |
| <b>Inhalation</b>  | :   |

**SECTION 4: First aid measures**

Get medical attention immediately. 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. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

**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** : Corrosive to eyes. Causes burns.
- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Corrosive to the skin. Causes burns. May cause sensitisation by skin contact.
- Ingestion** : Harmful if swallowed. May cause burns to mouth, throat and stomach.

**Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following:
  - pain
  - watering
  - redness
- Inhalation** : No specific data.
- 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** : Use an extinguishing agent suitable for the surrounding fire.

**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:  
carbon dioxide  
carbon monoxide  
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. This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Special protective equipment for fire-fighters** : Fire-fighters should wear proper protective equipment.

## **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 Section 8 for additional information on hygiene measures.

### **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). Water polluting material. May be harmful to the environment if released in large quantities.

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

**Small spill:** : Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

**Large spill** : Prevent entry into sewers, water courses, basements or confined areas. 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 (see section 13).

### **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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Refer to special instructions/safety data sheet. 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. 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: 0 to 25°C (32 to 77°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. 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.

**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 |
|--------------------------------|-----------------------|
| No exposure limit value known. |                       |

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

**Derived effect levels**

No DELs available.

**Predicted effect concentrations**

No PECs available.

**8.2 Exposure controls**

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

**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.

**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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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

**Skin protection**

**Hand protection (EN 374)** : 1 - 4 hours : butyl rubber , nitrile rubber .

**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)** : A respirator is not needed under normal and intended conditions of product use.

**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**

- Physical state** : Liquid.
- Colour** : Colourless.
- Odour** : Faint odour
- Odour threshold** : Not applicable and/or not determined for the mixture.
- pH** : 4 to 6 [Conc. (% w/w): 100%]
- Melting point/freezing point** : Not applicable and/or not determined for the mixture.
- Initial boiling point and boiling range** : Not applicable and/or not determined for the mixture.
- Flash point** : > 100°C
- Evaporation rate** : Not applicable and/or not determined for the mixture.
- Flammability (solid, gas)** : Not applicable and/or not determined for the mixture.
- Burning time** : Not applicable and/or not determined for the mixture.
- Burning rate** : Not applicable and/or not determined for the mixture.
- Upper/lower flammability or explosive limits** : Not applicable and/or not determined for the mixture.
- Vapour pressure** : Not applicable and/or not determined for the mixture.
- Vapour density** : Not applicable and/or not determined for the mixture.
- Relative density** : 0.99 to 1.03
- Solubility(ies)** : Easily soluble in the following materials: cold water.
- Partition coefficient: n-octanol/water** : Not applicable and/or not determined for the mixture.
- Auto-ignition temperature** : Not applicable and/or not determined for the mixture.

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### **SECTION 9: Physical and chemical properties**

- Decomposition temperature** : Not applicable and/or not determined for the mixture.  
**Viscosity** : Not applicable and/or not determined for the mixture.  
**Explosive properties** : Not applicable.  
**Oxidising properties** : None.

#### **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** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### **SECTION 11: Toxicological information**

#### **11.1 Information on toxicological effects**

##### **Acute toxicity**

| <b>Product/ingredient name</b> | <b>Result</b> | <b>Species</b> | <b>Dose</b> | <b>Exposure</b> |
|--------------------------------|---------------|----------------|-------------|-----------------|
| Benzalkonium chloride          | LD50 Dermal   | Rabbit         | 3340 mg/kg  | -               |
|                                | LD50 Oral     | Rat            | 426 mg/kg   | -               |

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

##### **Irritation/Corrosion**

| <b>Product/ingredient name</b> | <b>Result</b>          | <b>Species</b> | <b>Score</b> | <b>Exposure</b> | <b>Observation</b> |
|--------------------------------|------------------------|----------------|--------------|-----------------|--------------------|
| Benzalkonium chloride          | Skin - Severe irritant | Rabbit         | -            | -               | -                  |

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

##### **Sensitiser**

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

##### **Mutagenicity**

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

##### **Carcinogenicity**

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

##### **Reproductive toxicity**

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

##### **Teratogenicity**

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

**Information on the likely routes of exposure** : Not determined for the mixture.

##### **Potential acute health effects**

**Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.

**SECTION 11: Toxicological information**

- Ingestion** : Harmful if swallowed. May cause burns to mouth, throat and stomach.  
**Skin contact** : Corrosive to the skin. Causes burns. May cause sensitisation by skin contact.  
**Eye contact** : Corrosive to eyes. Causes burns.

**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** : Not determined for the mixture.  
**Potential delayed effects** : Not determined for the mixture.

**Long term exposure**

- Potential immediate effects** : Not determined for the mixture.  
**Potential delayed effects** : Not determined for the mixture.

**Potential chronic health effects**

- Conclusion/Summary** : Not determined for the mixture.  
**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
**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** : Not determined for the mixture.

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

| Product/ingredient name | Result                | Species | Exposure |
|-------------------------|-----------------------|---------|----------|
| Benzalkonium chloride   | Acute EC50 0.025 mg/l | Daphnia | 48 hours |
|                         | Acute EC50 0.037 mg/l | Daphnia | 48 hours |
|                         | Acute EC50 0.052 mg/l | Daphnia | 48 hours |
|                         | Acute LC50 0.28 mg/l  | Fish    | 96 hours |
|                         | Acute LC50 0.32 mg/l  | Fish    | 96 hours |
|                         | Acute LC50 0.51 mg/l  | Fish    | 96 hours |

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

**12.2 Persistence and degradability**

- Conclusion/Summary** : The ecological evaluation of the product is based on data from the raw material and/or comparable substances. The total of the organic components contained in the product achieve > 60% BOD/COD or CO<sub>2</sub> liberation, or > 70% DOC reduction in tests for ease of degradability - threshold values for 'readily degradable' (e.g. to OECD method 301).

**SECTION 12: Ecological information****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 29*  | detergents containing dangerous substances |

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.









**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**

|                       | ADR/RID | ADN/ADNR | IMDG   | IATA   |
|-----------------------|---------|----------|--------|--------|
| <b>14.1 UN number</b> | UN1760  | UN1760   | UN1760 | UN1760 |
|                       |         |          |        |        |

## Klercide-CR Biocide X Unit Dose Concentrate

### SECTION 14: Transport information

|  |  |  |   |  |
|--|--|--|---|--|
| <b>14.2 UN proper shipping name</b>      | CORROSIVE LIQUID, N.O.S. (Benzalkonium chloride, Polyhexamethylene biguanide hydrochloride)  | CORROSIVE LIQUID, N.O.S. (Benzalkonium chloride, Polyhexamethylene biguanide hydrochloride)  | CORROSIVE LIQUID, N.O.S. (Benzalkonium chloride, Polyhexamethylene biguanide hydrochloride). Marine pollutant   | Corrosive liquid, n.o.s. (Benzalkonium chloride, Polyhexamethylene biguanide hydrochloride)  |
| <b>14.3 Transport hazard class(es)</b>   | 8<br>  | 8<br>  | 8<br>  | 8<br>  |
| <b>14.4 Packing group</b>                | III  | III  | III   | III  |
| <b>14.5 Environmental hazards</b>        | Yes.   | Yes.   | Yes.  | Yes.   |
| <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**

**National regulations**

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.

|   |  |
|---|--|
| <b>Abbreviations and acronyms</b>             | : ATE = Acute Toxicity Estimate<br>CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]<br>DNEL = Derived No Effect Level<br>EUH statement = CLP-specific Hazard statement<br>PNEC = Predicted No Effect Concentration<br>RRN = REACH Registration Number  |
| <b>Full text of abbreviated H statements</b>  | : H302 Harmful if swallowed.<br>H314 Causes severe skin burns and eye damage.<br>H315 Causes skin irritation.<br>H317 May cause an allergic skin reaction.<br>H318 Causes serious eye damage.<br>H319 Causes serious eye irritation.<br>H400 Very toxic to aquatic life.<br>H411 Toxic to aquatic life with long lasting effects.<br>H412 Harmful to aquatic life with long lasting effects.   |
| <b>Full text of classifications [CLP/GHS]</b> | : Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4<br>Aquatic Acute 1, H400 AQUATIC TOXICITY (ACUTE) - Category 1<br>Aquatic Chronic 2, H411 AQUATIC TOXICITY (CHRONIC) - Category 2<br>Aquatic Chronic 3, H412 AQUATIC TOXICITY (CHRONIC) - Category 3<br>Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1<br>Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2<br>Skin Corr. 1B, H314 SKIN CORROSION/IRRITATION - Category 1B<br>Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2<br>Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1 |
| <b>Full text of abbreviated R phrases</b>     | : R22- Harmful if swallowed.<br>R34- Causes burns.<br>R36/38- Irritating to eyes and skin.<br>R43- May cause sensitisation by skin contact.<br>R50- Very toxic to aquatic organisms.<br>R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.<br>R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  |
| <b>Full text of classifications [DSD/DPD]</b> | : C - Corrosive<br>Xn - Harmful<br>Xi - Irritant<br>N - Dangerous for the environment  |
| <b>Date of printing</b>                       | : 4 May 2011   |
| <b>Date of issue/ Date of revision</b>        | : 4 May 2011   |
| <b>Date of previous issue</b>                 | : No previous validation   |
| <b>Version</b>                                | : 1  |

**Notice to reader**

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, **NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.**