# APEX MANUAL DETERGENT

## Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

| | | |
|---|---|---|
| Product name | : | APEX MANUAL DETERGENT |
| UFI | : | CQ10-483D-8C0M-R362 |
| Product code | : | 116630E |
| Use of the Substance/Mixture | : | Manual Warewashing Detergent |
| Substance type: | : | Mixture |
| | | **For professional users only.** |
| Product dilution information | : | 0.028 % - 0.062 % |

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

| | | |
|---|---|---|
| Identified uses | : | Dishwash product. Manual process |
| Recommended restrictions on use | : | Reserved for industrial and professional use. |

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

| | | |
|---|---|---|
| Company | : | Ecolab Limited<br>Forest Park<br>Mullingar Industrial Estate, Mullingar Co. Westmeath Ireland +353 1 276 3500<br>infoireland@ecolab.com<br><br>Ecolab Ltd.<br>PO Box 11; Winnington Avenue<br>Northwich, Cheshire, United Kingdom CW8 4DX<br>+353 (0)1 276 3500<br>ccs@ecolab.com |

### 1.4 Emergency telephone number

| | | |
|---|---|---|
| Poison Information Centre telephone number | : | Poisons Information: For information or to report a poisoning incident contact The National Poisons Information Centre (01 8092166) |

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## Section: 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

**Product AS SOLD**

| | |
|---|---|
| Skin irritation, Category 2 | H315 |
| Serious eye damage, Category 1 | H318 |
| Chronic aquatic toxicity, Category 3 | H412 |

The classification of this product is based on toxicological assessment.

**Product AT USE DILUTION**

Not a hazardous substance or mixture.

**2.2 Label elements**

**Labelling (REGULATION (EC) No 1272/2008)**

**Product AS SOLD**

Hazard pictograms :

Signal Word : Danger

Hazard Statements :

| | |
|---|---|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary Statements :

**Prevention:**

| | |
|---|---|
| P273 | Avoid release to the environment. |

**Response:**

| | |
|---|---|
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER/doctor. |

Hazardous components which must be listed on the label:
benzenesulfonic acid, C10-13- alkyl derivs., sodium salt
dodecanamide, n-(2-hydroxyethyl)-

**Product AT USE DILUTION**

Not a hazardous substance or mixture.

**2.3 Other hazards**

**Product AS SOLD**

None known.

## Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

**3.2 Mixtures**

**Product AS SOLD**

**Hazardous components**

| Chemical Name | CAS-No.<br>EC-No.<br>REACH No. | Classification<br>REGULATION (EC) No 1272/2008 | Concentration<br>: [%] |
|---|---|---|---|

| | | | |
|---|---|---|---|
| benzenesulfonic acid, C10-13- alkyl derivs., sodium salt | 68411-30-3<br>270-115-0<br>01-2119489428-22 | Acute toxicity Category 4; H302<br>Skin irritation Category 2; H315<br>Serious eye damage Category 1; H318<br>Chronic aquatic toxicity Category 3; H412 | >= 30 - < 47 |
| Sodium poly(oxyethylene) dodecyl ether sulfate | 68585-34-2<br>500-223-8<br>01-2119488639-16 | Skin irritation Category 2; H315<br>Serious eye damage Category 1; H318 | >= 10 - < 20 |
| acetic acid, sodium salt | 127-09-3<br>204-823-8<br>01-2119485123-42 | Eye irritation Category 2; H319 | >= 5 - < 10 |
| dodecanamide, n-(2-hydroxyethyl)- | 142-78-9<br>205-560-1<br>01-2120771556-45 | Serious eye damage Category 1; H318 | >= 5 - < 10 |
| amides, coco, n-(hydroxyethyl) | 68140-00-1<br>268-770-2<br>01-2119489413-33 | Skin irritation Category 2; H315<br>Eye irritation Category 2; H319 | >= 3 - < 5 |
| C10-16 Polyglycoside | 110615-47-9<br>01-2119489418-23 | Skin irritation Category 2; H315<br>Serious eye damage Category 1; H318<br><br>Serious eye damage/eye irritation Category 1<br>> 12 - 100 %<br>Serious eye damage/eye irritation Category 2<br>1 - 12 %<br>Skin corrosion/irritation Category 2<br>30 - 100 % | >= 1 - < 2.5 |
| Sodium silicate | 1344-09-8<br>215-687-4<br>01-2119448725-31 | Skin corrosion Category 1B; H314<br>Serious eye damage Category 1; H318<br>Specific target organ toxicity - single exposure Category 3; H335<br><br>Serious eye damage/eye irritation Category 1<br>>= 28 %<br>Serious eye damage/eye irritation Category 2A<br>24 - < 28 %<br>Skin corrosion/irritation Category 1B<br>>= 39 %<br>Skin corrosion/irritation Category 2<br>24 - < 39 %<br>Specific target organ toxicity - single exposure Category 3<br>>= 24 % | >= 1 - < 2.5 |
| alcohols, c10-16, ethoxylated | 68002-97-1<br>500-182-6 | Acute toxicity Category 4; H302<br>Skin irritation Category 2; H315<br>Serious eye damage Category 1; H318<br>Acute aquatic toxicity Category 1; H400<br><br>Serious eye damage/eye irritation Category 1<br>> 20 %<br>Serious eye damage/eye irritation Category 2A<br>> 10 - 20 %<br>Serious eye damage/eye irritation Category 2B<br>1 - 10 % | >= 0.25 - < 0.5 |

| | | | |
|---|---|---|---|
| | | Skin corrosion/irritation Category 2<br>> 25 %<br>M = 1 | |
| Substances with a workplace exposure limit : | | | |
| monoethanolamine | 141-43-5<br>205-483-3<br>01-2119486455-28 | Acute toxicity Category 4; H302<br>Acute toxicity Category 4; H332<br>Acute toxicity Category 4; H312<br>Skin corrosion Sub-category 1B; H314<br>Chronic aquatic toxicity Category 3; H412<br>Specific target organ toxicity - single exposure Category 3; H335<br><br>Specific target organ toxicity - single exposure Category 3<br>H335 5 - 100 % | >= 0.1 - < 0.25 |

**Product AT USE DILUTION**

Remarks : No hazardous ingredients

For the full text of the H-Statements mentioned in this Section, see Section 16.

## Section: 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**Product AS SOLD**

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Get medical attention if irritation develops and persists.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

**Product AT USE DILUTION**

In case of eye contact : Rinse with plenty of water.

In case of skin contact : Rinse with plenty of water.

Rinse with plenty of water.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

### 4.2 Most important symptoms and effects, both acute and delayed

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

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

Treatment : Treat symptomatically.

## Section: 5. FIREFIGHTING MEASURES

**Product AS SOLD**

### 5.1 Extinguishing media

| | | |
|---|---|---|
| Suitable extinguishing media | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | : | None known. |

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

| | | |
|---|---|---|
| Specific hazards during firefighting | : | Not flammable or combustible. |
| Hazardous combustion products | : | Depending on combustion properties, decomposition products may include following materials:<br>Carbon oxides<br>nitrogen oxides (NOx)<br>Sulphur oxides<br>Oxides of phosphorus |

### 5.3 Advice for firefighters

| | | |
|---|---|---|
| Special protective equipment for firefighters | : | Use personal protective equipment. |
| Further information | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes. |

## Section: 6. ACCIDENTAL RELEASE MEASURES

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

**Product AS SOLD**

| | | |
|---|---|---|
| Advice for non-emergency personnel | : | Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8. |
| Advice 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. |

**Product AT USE DILUTION**

| | | |
|---|---|---|
| Advice for non-emergency personnel | : | Refer to protective measures listed in sections 7 and 8. |
| Advice 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. |

### 6.2 Environmental precautions

**Product AS SOLD**
Environmental precautions : Do not allow contact with soil, surface or ground water.

**Product AT USE DILUTION**
Environmental precautions : No special environmental precautions required.

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

**Product AS SOLD**
Methods for cleaning up : Sweep up and shovel into suitable containers for disposal.

**Product AT USE DILUTION**
Methods for cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Do not flush into surface water or sanitary sewer system.

### 6.4 Reference to other sections

See Section 1 for emergency contact information.
For personal protection see section 8.
See Section 13 for additional waste treatment information.

## Section: 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

**Product AS SOLD**
Advice on safe handling : Avoid contact with skin and eyes. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not breathe dust. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

**Product AT USE DILUTION**
Advice on safe handling : Wash hands after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE). For personal protection see section 8.

Hygiene measures : Wash hands before breaks and immediately after handling the product.

### 7.2 Conditions for safe storage, including any incompatibilities

**Product AS SOLD**
Requirements for storage areas and containers : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature : 0 °C to 50 °C

**Product AT USE DILUTION**

Requirements for storage areas and containers : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

### 7.3 Specific end uses

**Product AS SOLD**

Specific use(s) : Dishwash product. Manual process

## Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

**Product AS SOLD**

**Occupational Exposure Limits**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| monoethanolamine | 141-43-5 | OELV - 15 min (STEL) | 3 ppm<br>7.6 mg/m3 | IR_OEL |
| Further information | Sk | Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body | | |
| | | OELV - 8 hrs (TWA) | 1 ppm<br>2.5 mg/m3 | IR_OEL |
| Further information | Sk | Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body | | |

DNEL

| | | |
|---|---|---|
| benzenesulfonic acid, C10-13-alkyl derivs., sodium salt | : | End Use: Workers<br>Exposure routes: Dermal<br>Potential health effects: Long-term systemic effects<br>Value: 85 mg/cm2<br><br>End Use: Workers<br>Exposure routes: Dermal<br>Potential health effects: Long-term local effects<br>Value: 85 mg/cm2<br><br>End Use: Workers<br>Exposure routes: Inhalation<br>Potential health effects: Long-term systemic effects<br>Value: 6 mg/m3<br><br>End Use: Workers<br>Exposure routes: Inhalation<br>Potential health effects: Long-term local effects<br>Value: 6 mg/m3 |
| Sodium silicate | : | End Use: Workers<br>Exposure routes: Inhalation<br>Potential health effects: Long-term systemic effects<br>Value: 5.61 mg/m3<br><br>End Use: Workers<br>Exposure routes: Dermal<br>Potential health effects: Long-term systemic effects<br>Value: 1.59 mg/cm2 |

| | | |
|---|---|---|
| | | End Use: Consumers<br>Exposure routes: Inhalation<br>Potential health effects: Long-term systemic effects<br>Value: 1.38 mg/m3<br><br>End Use: Consumers<br>Exposure routes: Dermal<br>Potential health effects: Long-term systemic effects<br>Value: 0.8 mg/cm2<br><br>End Use: Consumers<br>Exposure routes: Ingestion<br>Potential health effects: Long-term systemic effects<br>Value: 0.8 ppm |

PNEC

| | | |
|---|---|---|
| benzenesulfonic acid, C10-13-alkyl derivs., sodium salt | : | Fresh water<br>Value: 0.268 mg/l<br><br>Marine water<br>Value: 0.0268 mg/l<br><br>Intermittent use/release<br>Value: 0.0167 mg/l<br><br>Fresh water sediment<br>Value: 8.1 mg/kg<br><br>Marine sediment<br>Value: 8.1 mg/kg<br><br>Sewage treatment plant<br>Value: 3.43 mg/l |
| Sodium silicate | : | Fresh water<br>Value: 7.5 mg/l<br><br>Marine water<br>Value: 1 mg/l<br><br>Intermittent use/release<br>Value: 7.5 mg/l<br><br>Sewage treatment plant<br>Value: 348 mg/l |

**8.2 Exposure controls**

**Product AS SOLD**
**Appropriate engineering controls**

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

| | | |
|---|---|---|
| Hygiene measures | : | Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard. |
| Eye/face protection (EN 166) | : | Due to the form and packaging of the product, no protective equipment is needed under normal use conditions. |
| Hand protection (EN 374) | : | Due to the form and packaging of the product, no protective equipment is needed under normal use conditions. |
| Skin and body protection (EN 14605) | : | No special protective equipment required. |
| Respiratory protection (EN 143, 14387) | : | When respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, (EU) 2016/425), or equivalent, with filter type:A-P |

**Product AT USE DILUTION**
**Appropriate engineering controls**

| | | |
|---|---|---|
| Engineering measures | : | Good general ventilation should be sufficient to control worker exposure to airborne contaminants. |

**Individual protection measures**

| | | |
|---|---|---|
| Hygiene measures | : | Wash hands before breaks and immediately after handling the product. |
| Eye/face protection (EN 166) | : | No special protective equipment required. |
| Hand protection (EN 374) | : | No special protective equipment required. |
| Skin and body protection (EN 14605) | : | No special protective equipment required. |
| Respiratory protection (EN 143, 14387) | : | None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU requirements(89/656/EEC, (EU) 2016/425), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization. |

**Environmental exposure controls**

| | | |
|---|---|---|
| General advice | : | Consider the provision of containment around storage vessels. |

## Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

| | | Product AS SOLD | Product AT USE DILUTION |
|---|---|---|---|
| Physical state | : | solid | liquid |
| Colour | : | opaque, purple | |
| Odour | : | citrus | pleasant |
| pH | : | 7.0 - 10.0, 1 % | 7.0 - 10.0 |
| Particle characteristics | | | |
| Assessment | : | no data available | not applicable |
| Particle size | : | no data available | not applicable |
| Particle Size Distribution | : | no data available | not applicable |
| Dustiness | : | no data available | not applicable |
| Specific surface area | : | no data available | not applicable |
| Surface charge/Zeta potential | : | no data available | not applicable |
| Shape | : | no data available | not applicable |
| Crystallinity | : | no data available | not applicable |
| Surface treatment /Coatings | : | no data available | not applicable |
| Flash point | : | Not applicable., Does not sustain combustion. | |
| Odour Threshold | : | Not applicable and/or not determined for the mixture | |
| Melting point/freezing point | : | Not applicable and/or not determined for the mixture | |
| Boiling point, initial boiling point and boiling range | : | Not applicable and/or not determined for the mixture | |
| Evaporation rate | : | Not applicable and/or not determined for the mixture | |
| Flammability | : | Not applicable and/or not determined for the mixture | |
| Upper explosion limit | : | Not applicable and/or not determined for the mixture | |
| Lower explosion limit | : | Not applicable and/or not determined for the mixture | |
| Vapour pressure | : | Not applicable and/or not determined for the mixture | |
| Relative vapour density | : | Not applicable and/or not determined for the mixture | |
| Density and / or relative density | : | 1.15 - 1.37 | |
| Water solubility | : | insoluble | |
| Solubility in other solvents | : | Not applicable and/or not determined for the mixture | |
| Partition coefficient: n-octanol/water (log value) | : | Not applicable and/or not determined for the mixture | |
| Auto-ignition temperature | : | Not applicable and/or not determined for the mixture | |
| Thermal decomposition | : | Not applicable and/or not determined for the mixture | |
| Viscosity, kinematic | : | Not applicable and/or not determined for the mixture | |
| Explosive properties | : | Not applicable and/or not determined for the mixture | |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. | |

**9.2 Other information**

Not applicable and/or not determined for the mixture

## Section: 10. STABILITY AND REACTIVITY

**Product AS SOLD**

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

None known.

### 10.5 Incompatible materials

None known.

### 10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials:
Carbon oxides
nitrogen oxides (NOx)
Sulphur oxides
Oxides of phosphorus

## Section: 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Product AS SOLD**

| | | |
|---|---|---|
| Information on likely routes of exposure | : | Eye contact, Skin contact |

**Product**

| | | |
|---|---|---|
| Acute oral toxicity | : | Acute toxicity estimate : > 2,000 mg/kg |
| Acute inhalation toxicity | : | There is no data available for this product. |
| Acute dermal toxicity | : | There is no data available for this product. |
| Skin corrosion/irritation | : | There is no data available for this product. |
| Serious eye damage/eye irritation | : | There is no data available for this product. |
| Respiratory or skin sensitization | : | There is no data available for this product. |

| | | |
|---|---|---|
| Carcinogenicity | : | There is no data available for this product. |
| Reproductive effects | : | There is no data available for this product. |
| Germ cell mutagenicity | : | There is no data available for this product. |
| Teratogenicity | : | There is no data available for this product. |
| STOT - single exposure | : | There is no data available for this product. |
| STOT - repeated exposure | : | There is no data available for this product. |
| Aspiration toxicity | : | There is no data available for this product. |

**Components**

Acute oral toxicity : benzenesulfonic acid, C10-13- alkyl derivs., sodium salt LD50 rat: 1,080 mg/kg

Sodium poly(oxyethylene) dodecyl ether sulfate LD50 rat: 3,350 mg/kg

acetic acid, sodium salt LD50 rat: 3,530 mg/kg

dodecanamide, n-(2-hydroxyethyl)- LD50 rat: > 2,000 mg/kg

amides, coco, n-(hydroxyethyl) LD50 rat: 4,106 mg/kg

Sodium silicate LD50 rat: 3,400 mg/kg

alcohols, c10-16, ethoxylated LD50 rat: 1,000 mg/kg

monoethanolamine LD50 rat: 1,089 mg/kg

**Components**

Acute inhalation toxicity : acetic acid, sodium salt 4 h LC50 rat: > 5.6 mg/l
Test atmosphere: dust/mist

alcohols, c10-16, ethoxylated 4 h LC50 rat: > 50 mg/l
Test atmosphere: dust/mist

monoethanolamine 4 h LC50 rat: > 1.6 mg/l
Test atmosphere: dust/mist

**Components**

Acute dermal toxicity : Sodium poly(oxyethylene) dodecyl ether sulfate LD50 rat: > 2,000 mg/kg

acetic acid, sodium salt LD50 rabbit: > 20,000 mg/kg

Sodium silicate LD50 rat: > 5,000 mg/kg
Test substance: Information given is based on data obtained from similar substances.

monoethanolamine LD50 rabbit: 1,025 mg/kg

**Potential Health Effects**

**Product AS SOLD**

| | | |
|---|---|---|
| Eyes | : | Causes serious eye damage. |
| Skin | : | Causes skin irritation. |
| Ingestion | : | Health injuries are not known or expected under normal use. |
| Inhalation | : | Health injuries are not known or expected under normal use. |
| Chronic Exposure | : | Health injuries are not known or expected under normal use. |

**Product AT USE DILUTION**

| | | |
|---|---|---|
| Eyes | : | Health injuries are not known or expected under normal use. |

**Product AT USE DILUTION**

| | | |
|---|---|---|
| | | Health injuries are not known or expected under normal use. |
| Skin | : | Health injuries are not known or expected under normal use. |
| | | Health injuries are not known or expected under normal use. |
| Ingestion | : | Health injuries are not known or expected under normal use. |
| Inhalation | : | Health injuries are not known or expected under normal use. |
| Chronic Exposure | : | Health injuries are not known or expected under normal use. |

**Experience with human exposure**

**Product AS SOLD**

| | | |
|---|---|---|
| Eye contact | : | Redness, Pain, Corrosion |
| Skin contact | : | Redness, Irritation |
| | | No symptoms known or expected. |
| Ingestion | : | No symptoms known or expected. |
| | | No symptoms known or expected. |
| Inhalation | : | No symptoms known or expected. |
| | | No symptoms known or expected. |

**Product AT USE DILUTION**

| | | |
|---|---|---|
| Eye contact | : | No symptoms known or expected. |

**11.2 Information on other hazards**

**Further information** : no data available

## Section: 12. ECOLOGICAL INFORMATION

**12.1 Toxicity**

**Product AS SOLD**

| | | |
|---|---|---|
| Environmental Effects | : | Harmful to aquatic life with long lasting effects. |

**Product AT USE DILUTION**

Environmental Effects : This product has no known ecotoxicological effects.

**Product AS SOLD**

**Product**

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

**Components**

Toxicity to fish : benzenesulfonic acid, C10-13- alkyl derivs., sodium salt96 h LC50 Lepomis macrochirus (Bluegill sunfish): 1.67 mg/l

Sodium poly(oxyethylene) dodecyl ether sulfate96 h LC50 Fish: 28 mg/l

acetic acid, sodium salt96 h LC50 Fish: > 100 mg/l

dodecanamide, n-(2-hydroxyethyl)-96 h LC50 Fish: > 100 mg/l

C10-16 Polyglycoside96 h LC50 Fish: 5 mg/l

Sodium silicate96 h LC50 Oncorhynchus mykiss (rainbow trout): 260 mg/l

**Components**

Toxicity to daphnia and other aquatic invertebrates : benzenesulfonic acid, C10-13- alkyl derivs., sodium salt48 h LC50 Daphnia magna (Water flea): 2.4 mg/l

Sodium silicate48 h EC50 Daphnia magna (Water flea): 1,700 mg/l

alcohols, c10-16, ethoxylated48 h EC50: > 0.1 mg/l

monoethanolamine48 h LC50 Daphnia magna (Water flea): 65 mg/l

**Components**

Toxicity to algae : benzenesulfonic acid, C10-13- alkyl derivs., sodium salt96 h EC50 Pseudokirchneriella subcapitata (green algae): 29 mg/l

amides, coco, n-(hydroxyethyl)72 h EC50: 1.07 mg/l

Sodium silicate72 h EC50 Desmodesmus subspicatus (green algae): 207 mg/l

### 12.2 Persistence and degradability

**Product**

no data available

**Components**

Biodegradability : benzenesulfonic acid, C10-13- alkyl derivs., sodium saltResult: Readily biodegradable.

Sodium poly(oxyethylene) dodecyl ether sulfateResult: Readily biodegradable.

acetic acid, sodium saltResult: Readily biodegradable.

dodecanamide, n-(2-hydroxyethyl)-Result: Biodegradable

amides, coco, n-(hydroxyethyl)Result: Readily biodegradable.

C10-16 PolyglycosideResult: Readily biodegradable.

Sodium silicateResult: Not applicable - inorganic

alcohols, c10-16, ethoxylatedResult: Readily biodegradable.

monoethanolamineResult: Readily biodegradable.

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

**Product**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

no data available

### 12.7 Other adverse effects

no data available

## Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste.Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

### 13.1 Waste treatment methods

**Product AS SOLD**

Product : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do

not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

| | | |
|---|---|---|
| Guidance for Waste Code selection | : | Organic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations. |

**Product AT USE DILUTION**

| | | |
|---|---|---|
| Product | : | Diluted product can be flushed to sanitary sewer if regulations permit. |
| Contaminated packaging | : | Dispose of in accordance with local, state, and federal regulations. |

## Section: 14. TRANSPORT INFORMATION

**Product AS SOLD**

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

**Land transport (ADR/ADN/RID)**

| | | |
|---|---|---|
| 14.1 UN number or ID number | : | Not dangerous goods |
| 14.2 UN proper shipping name | : | Not dangerous goods |
| 14.3 Transport hazard class(es) | : | Not dangerous goods |
| 14.4 Packing group | : | Not dangerous goods |
| 14.5 Environmental hazards | : | Not dangerous goods |
| 14.6 Special precautions for user | : | Not dangerous goods |

**Air transport (IATA)**

| | | |
|---|---|---|
| 14.1 UN number or ID number | : | Not dangerous goods |
| 14.2 UN proper shipping name | : | Not dangerous goods |
| 14.3 Transport hazard class(es) | : | Not dangerous goods |
| 14.4 Packing group | : | Not dangerous goods |
| 14.5 Environmental hazards | : | Not dangerous goods |
| 14.6 Special precautions for user | : | Not dangerous goods |

**Air transport (IATA)**

Contact Regulatory for air freight eligibility

**Sea transport (IMDG/IMO)**

| | | |
|---|---|---|
| 14.1 UN number or ID | : | Not dangerous goods |

| | | |
|---|---|---|
| number | | |
| 14.2 UN proper shipping name | : | Not dangerous goods |
| 14.3 Transport hazard class(es) | : | Not dangerous goods |
| 14.4 Packing group | : | Not dangerous goods |
| 14.5 Environmental hazards | : | Not dangerous goods |
| 14.6 Special precautions for user | : | Not dangerous goods |
| 14.7 Maritime transport in bulk according to IMO instruments | : | Not dangerous goods |

## Section: 15. REGULATORY INFORMATION

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

| | | |
|---|---|---|
| according to Detergents Regulation EC 648/2004 | : | 30 % and more: Anionic surfactants<br>5 % or over but less than 15 %: Non-ionic surfactants<br>Other constituents: Perfumes<br>Allergens:<br>Limonene |
| Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. | : | Not applicable. |

**National Regulations**

**Take note of Dir 94/33/EC on the protection of young people at work.**

| | | |
|---|---|---|
| Other regulations | : | Safety, Health and Welfare at Work Act, 2005<br>European Communities (Classification, Packaging, Labelling and Notification of Dangerous Preparations) Regulations 1995. (S.I. 272 of 1995) as amended |

**15.2 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out on the product.

## Section: 16. OTHER INFORMATION

**Procedure used to derive the classification according to REGULATION (EC) No 1272/2008**

| Classification | Justification |
|---|---|
| Skin irritation 2, H315 | Calculation method |
| Serious eye damage 1, H318 | Calculation method |
| Chronic aquatic toxicity 3, H412 | Calculation method |

**Full text of H-Statements**

| | |
|---|---|
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |

| | |
|---|---|
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H400 | Very toxic to aquatic life. |
| H412 | Harmful to aquatic life with long lasting effects. |

**Full text of other abbreviations**

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

Prepared by : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

## Annex: Exposure Scenarios

### Exposure Scenario: Dishwash product. Manual process

| | | | |
|---|---|---|---|
| Life Cycle Stage | : | Widespread use by professional workers | |
| Product category | : | **PC35** | Washing and cleaning products (including solvent based products) |

**Contributing scenario controlling environmental exposure for:**

| | | | |
|---|---|---|---|
| Environmental release category | : | **ERC8a** | Wide dispersive indoor use of processing aids in open systems |
| Daily amount per site | : | 7.5 kg | |
| Type of Sewage Treatment Plant | : | Municipal sewage treatment plant | |

**Contributing scenario controlling worker exposure for:**

| | | | |
|---|---|---|---|
| Process category | : | **PROC10** | Roller application or brushing |
| Exposure duration | : | 480 min | |
| Operational conditions and risk management measures | : | Indoor | |
| | | Local Exhaust Ventilation is not required | |
| General ventilation | | Ventilation rate per hour | 1 |
| Skin Protection | : | see section 8 | |
| Respiratory Protection | : | see section 8 | |

**Contributing scenario controlling worker exposure for:**

| | | | |
|---|---|---|---|
| Process category | : | **PROC8a** | Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities |
| Exposure duration | : | 60 min | |
| Operational conditions and risk management measures | : | Indoor | |
| | | Local Exhaust Ventilation is not required | |
| General ventilation | | Ventilation rate per hour | 1 |
| Skin Protection | : | see section 8 | |
| Respiratory Protection | : | see section 8 | |