



UNOX S.p.A.

Revision n. 3  
Dated 16/01/2023  
Printed on 16/01/2023  
Page n. 1/14  
Replaced version:2 (Printed on: 22/05/2017)

DET &amp; RINSE ECO

## Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

#### 1.1. Product identifier

Code: DB1018A0  
Product name: DET & RINSE ECO PC00-  
Y0FX-500S-95MA  
UFI:

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

Intended use Oven cleaner (EUPCS: PC-CLN-10.4).

| Identified Uses   | Industrial | Professional                                 | Consumer |
|---|------------|--|----------|
| Transfer to a container through a dedicated line (bottle/machine) | -          | ERC: 8a.<br>PROC: 8b.<br>PC: 35.<br>LCS: PW. | -        |

#### Uses Advised Against

Any use other than those identified.

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

Name UNOX Australia Pty. Ltd.  
Full address 7/100 New Street,  
District and Country Ringwood, VIC. 3134  
T +61 3 9876 0803  
<http://www.unox.com>

e-mail address of the competent person

responsible for the Safety Data Sheet [crmsupport@unoxaustralia.com.au](mailto:crmsupport@unoxaustralia.com.au)

#### 1.4. Emergency telephone number

For urgent inquiries refer to  
3E  
+61 1800 686 951 (Australia)  
+64 800 451719 (New Zealand)  
Access code: 334577  
Hours: 24/7

### SECTION 2. Hazards identification

#### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

|  |      |  |
|--|------|--|
| Substance or mixture corrosive to metals, category 1 | H290 | May be corrosive to metals.              |
| Skin corrosion, category 1A                          | H314 | Causes severe skin burns and eye damage. |
| Serious eye damage, category 1                       | H318 | Causes serious eye damage.               |



UNOX S.p.A.

Revision n. 3  
Dated 16/01/2023  
Printed on 16/01/2023  
Page n. 2/14  
Replaced version:2 (Printed on: 22/05/2017)

DET &amp; RINSE ECO

## 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Danger

Hazard statements:

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

Precautionary statements:

**P363** Wash contaminated clothing before reuse.  
**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.  
**P501** Dispose of contents / container in accordance with local regulations.

**Contains:** POTASSIUM HYDROXIDE

Ingredients according to Regulation (EC) No. 648/2004

Less than 5% phosphonates, anionic surfactants, amphoteric surfactants  
5% or over but less than 15% non-ionic surfactants

## 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

## SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

| Identification                   | x = Conc. %      | Classification (EC) 1272/2008 (CLP)   |
|----------------------------------|------------------|---|
| <b>POTASSIUM HYDROXIDE</b>       |                  |   |
| CAS 1310-58-3                    | $14 \leq x < 15$ | Met. Corr. 1 H290, Acute Tox. 4 H302, Skin Corr. 1A H314, Eye Dam. 1 H318   |
| EC 215-181-3                     |                  | Skin Corr. 1B H314: $\geq 2\%$ , Skin Irrit. 2 H315: $\geq 0,5\%$ , Eye Dam. 1 H318: $\geq 2\%$ , Eye Irrit. 2 H319: $\geq 0,5\%$ |
| INDEX 019-002-00-8               |                  | LD50 Oral: 333 mg/kg  |
| REACH Reg. 01-2119487136-33-XXXX |                  |   |



UNOX S.p.A.

Revision n. 3  
Dated 16/01/2023  
Printed on 16/01/2023  
Page n. 3/14  
Replaced version:2 (Printed on: 22/05/2017)

DET & RINSE ECO

**D-GLUCOPYRANOSE, OLIGOMERIC, HEPTYL GLYCOSIDE**

CAS - 4 ≤ x < 6 Eye Dam. 1 H318

EC 807-654-3

INDEX -

REACH Reg. 01-2120088889-28-XXXX

**OXIRANE, 2-METHYL-, POLYMER WITH OXIRANE, MONO(2-PROPYLHEPTYL) ETHER**

CAS 1 ≤ x < 2 Eye Irrit. 2 H319, Skin Irrit. 2 H315

EC

INDEX -

REACH Reg. \*

**ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT**

CAS - 1 ≤ x < 1,5 Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315

EC 939-625-7

LD50 Oral: >1550 mg/kg

INDEX -

REACH Reg. 01-2119985168-23-XXXX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

OXIRANE, 2-METHYL-, POLYMER WITH OXIRANE, MONO(2-PROPYLHEPTYL) ETHER \*Exempted: Polymer. See Article 2 (9) of Regulation (EC) No. 1907/2006.

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.  
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.  
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.  
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

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

Keep the safety data sheet of the preparation or, failing that, the label available for the medical personnel.

## SECTION 5. Firefighting measures

### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. UNSUITABLE EXTINGUISHING EQUIPMENT



UNOX S.p.A.

Revision n. 3  
Dated 16/01/2023  
Printed on 16/01/2023  
Page n. 4/14  
Replaced version:2 (Printed on: 22/05/2017)

**DET & RINSE ECO**

None in particular.

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

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE  
Do not breathe combustion products.

**5.3. Advice for firefighters**

**GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures**

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

Evacuate area. Send away individuals who are not suitably equipped. Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Use breathing equipment if powders are released into the air.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water. Avoid the formation of powder and dispersion of the product in the air.

**6.3. Methods and material for containment and cleaning up**

Collect the leaked product and place it in containers for recovery or disposal. Make sure the leakage site is well aired. It may be advisable to wash with water any surfaces contaminated with traces of dust, without contaminating waste water.

**6.4. Reference to other sections**

Notify the competent authorities if the product has reached waterways or if it has contaminated the ground or vegetation.

**SECTION 7. Handling and storage**

**7.1. Precautions for safe handling**

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Use only with the automatic system supplied with UNOX ovens. Use frequency: up to 5 days/week. Duration of use: up to 10 minutes/day.

**7.2. Conditions for safe storage, including any incompatibilities**

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details. The product is alkaline and may generate hydrogen gas if it comes in contact with metals such as aluminium, zinc and tin.

The hydrogen gas developed may cause combustion when the product is transferred to a metal container made from one of the metals indicated above, or which has been in contact with the same for an extended period of time.

If the hydrogen gas develops in a closed space, there may be a risk of explosion.



UNOX S.p.A.

Revision n. 3  
Dated 16/01/2023  
Printed on 16/01/2023  
Page n. 5/14  
Replaced version:2 (Printed on: 22/05/2017)

DET &amp; RINSE ECO

Store at a temperature between 5 ° C and 40 ° C.

Storage class TRGS 510 (Germany): 8A

**7.3. Specific end use(s)**

Follow the instructions on the product labeled or on the information sheet. Refer to the safe use information if enclosed with this safety data sheet.

**SECTION 8. Exposure controls/personal protection****8.1. Control parameters**

## Regulatory References:

|     |                             |  |
|-----|-----------------------------|--|
| BGR | България                    | НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)   |
| ESP | España                      | Límites de exposición profesional para agentes químicos en España 2021   |
| FRA | France                      | Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS   |
| GRC | Ελλάδα                      | Π.Δ. 26/2020 (ΦΕΚ 50/Α΄ 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαζόντους παράγοντες κατά την εργασία``» |
| HRV | Hrvatska                    | Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)   |
| GBR | United Kingdom<br>TLV-ACGIH | EH40/2005 Workplace exposure limits (Fourth Edition 2020)<br>ACGIH 2021  |

**POTASSIUM HYDROXIDE****Threshold Limit Value**

| Type      | Country | TWA/8h            |     | STEL/15min        |     | Remarks / Observations |
|-----------|---------|-------------------|-----|-------------------|-----|------------------------|
|           |         | mg/m <sup>3</sup> | ppm | mg/m <sup>3</sup> | ppm |                        |
| TLV       | BGR     | 2                 |     |                   |     |                        |
| VLA       | ESP     |                   |     | 2                 |     |                        |
| VLEP      | FRA     |                   |     | 2                 |     |                        |
| TLV       | GRC     | 2                 |     | 2                 |     |                        |
| GVI/KGVI  | HRV     |                   |     | 2                 |     |                        |
| WEL       | GBR     |                   |     | 2                 |     |                        |
| TLV-ACGIH |         |                   |     | 2 (C)             |     |                        |

**Health - Derived no-effect level - DNEL / DMEL**

| Route of exposure | Effects on consumers |                |                     | Effects on workers |             |                |                     |                  |
|-------------------|----------------------|----------------|---------------------|--------------------|-------------|----------------|---------------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local       | Chronic systemic   | Acute local | Acute systemic | Chronic local       | Chronic systemic |
| Inhalation        |                      |                | 1 mg/m <sup>3</sup> | VND                |             |                | 1 mg/m <sup>3</sup> | VND              |

**ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT**

## Predicted no-effect concentration - PNEC

|  |        |       |
|--|--------|-------|
| Normal value in fresh water            | 0,1    | mg/l  |
| Normal value in marine water           | 0,01   | mg/l  |
| Normal value for fresh water sediment  | 1,109  | mg/kg |
| Normal value for marine water sediment | 0,1109 | mg/kg |



UNOX S.p.A.

Revision n. 3  
Dated 16/01/2023  
Printed on 16/01/2023  
Page n. 6/14  
Replaced version:2 (Printed on: 22/05/2017)

DET & RINSE ECO

|  |       |       |
|--|-------|-------|
| Normal value for water, intermittent release | 1     | mg/l  |
| Normal value of STP microorganisms           | 31,3  | mg/l  |
| Normal value for the terrestrial compartment | 0,163 | mg/kg |

Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers |                |               |                        | Effects on workers |                |               |                         |
|-------------------|----------------------|----------------|---------------|------------------------|--------------------|----------------|---------------|-------------------------|
|                   | Acute local          | Acute systemic | Chronic local | Chronic systemic       | Acute local        | Acute systemic | Chronic local | Chronic systemic        |
| Oral              |                      |                | VND           | 2,15 mg/kg/d           |                    |                |               |                         |
| Inhalation        |                      |                | VND           | 7,48 mg/m <sup>3</sup> |                    |                | VND           | 30,32 mg/m <sup>3</sup> |
| Skin              |                      |                | VND           | 2159 mg/kg             |                    |                | VND           | 430 mg/kg/d             |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

The use of appropriate technical measures should always take priority over personal protection equipment. Provide a good level of general ventilation in the workplace (3 to 5 air changes per hour). The individual protection devices must bear the CE marking that certifies their compliance with the regulations in force.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect your hands with category III work gloves (ref. Standard EN 374). For the final choice of material for work gloves, the following must be considered: compatibility, degradation, breakage time and permeation. Gloves have a wear time that depends on the duration and mode of use. Suitable gloves (protection factor 6, permeation time > 480 minutes): material (thickness, mm): nitril rubber (0.35 mm), polychloroprene (0,5 mm), polyvinylchloride (0,5 mm).

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type A filter combined with a type P2 filter should be worn (see standard EN 14387). Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Properties | Value          | Information          |
|------------|----------------|----------------------|
| Appearance | liquid         |                      |
| Colour     | amber          |                      |
| Odour      | characteristic | Method: organoleptic |



## DET &amp; RINSE ECO

|  |          |                                  |   |
|--|----------|----------------------------------|---|
| Odour threshold                        | > 100 °C | not applicable                   | Reason for missing data:Not applicable to mixtures.   |
| Melting point / freezing point         |          | not determined                   | Reason for missing data:no test available             |
| Initial boiling point                  |          |                                  |   |
| Flammability                           | > 60 °C  | not applicable (liquid product). |   |
| Lower explosive limit                  |          | not applicable                   | Reason for missing data:The product is not explosive. |
| Upper explosive limit                  |          | not applicable                   | Reason for missing data:The product is not explosive. |
| Flash point                            |          |                                  |   |
| Auto-ignition temperature              |          | not available                    |   |
| Decomposition temperature              |          | not available                    |   |
| pH                                     |          | 13,5-14,0                        | Temperature: 24 °C                                    |
| Kinematic viscosity                    |          | not available                    |   |
| Solubility                             |          | soluble in water                 |   |
| Partition coefficient: n-octanol/water |          | not applicable                   | Reason for missing data:Not applicable to mixtures.   |
| Vapour pressure                        |          | not available                    |   |
| Density and/or relative density        |          | 1,15-1,25                        |   |
| Relative vapour density                |          | not available                    |   |
| Particle characteristics               |          | not applicable                   |   |

**9.2. Other information**

No other information available.

**9.2.1. Information with regard to physical hazard classes**

Information not available

**9.2.2. Other safety characteristics**

VOC (Directive 2010/75/EU)

1,08 %

Explosive properties

not applicable. None of the substances contained has functional groups associated with explosive properties.

Oxidising properties

not applicable. None of the contained substances has functional groups associated with oxidizing properties.

**SECTION 10. Stability and reactivity****10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

**10.2. Chemical stability**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

POTASSIUM HYDROXIDE

Reacts violently with: strong acids.Develops hydrogen on contact with: aluminium alloys,copper alloys,zinc alloys,light metals.Reacts violently with: peroxides.



UNOX S.p.A.

Revision n. 3  
Dated 16/01/2023  
Printed on 16/01/2023  
Page n. 8/14  
Replaced version:2 (Printed on: 22/05/2017)

DET & RINSE ECO

#### 10.4. Conditions to avoid

Avoid contact with: strong acids, oxidising agents, light metals, copper alloys, zinc alloys, aluminium alloys.

#### 10.5. Incompatible materials

Corrodes: aluminium, aluminium alloys, copper, copper alloys, zinc, zinc alloys.

Compatible materials: polyethylene, polypropylene, PVC.

Incompatible materials: aluminium, aluminium alloys, copper, copper alloys, zinc, zinc alloys.

#### 10.6. Hazardous decomposition products

If involved in a fire: carbon oxides, nitrogen oxides, sulfur oxides, potassium oxides, sodium oxides.

## SECTION 11. Toxicological information

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

#### Metabolism, toxicokinetics, mechanism of action and other information

Information not available

#### Information on likely routes of exposure

Dermal.  
Inhalation (in case of aerosol formation only - use not recommended).

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

#### Interactive effects

Interactive effects are not known.

#### ACUTE TOXICITY

|                                  |   |
|----------------------------------|---|
| ATE (Inhalation) of the mixture: | Not classified (no significant component) |
| ATE (Oral) of the mixture:       | >2000 mg/kg                               |
| ATE (Dermal) of the mixture:     | Not classified (no significant component) |

#### POTASSIUM HYDROXIDE

|              |  |
|--------------|--|
| LD50 (Oral): | 333 mg/kg rat (OECD method 425 - Bruce R.D., Fund. Appl. Toxicol., 8, 97-100). |
|--------------|--|

#### OXIRANE, 2-METHYL-, POLYMER WITH OXIRANE, MONO(2-PROPYLHEPTYL) ETHER

|              |                  |
|--------------|------------------|
| LD50 (Oral): | > 2000 mg/kg rat |
|--------------|------------------|

#### ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT

|                |                    |
|----------------|--------------------|
| LD50 (Dermal): | > 2000 mg/kg ratto |
| LD50 (Oral):   | > 1550 mg/kg ratto |

#### SKIN CORROSION / IRRITATION

Corrosive for the skin. Classification according to the experimental pH value.



UNOX S.p.A.

Revision n. 3  
Dated 16/01/2023  
Printed on 16/01/2023  
Page n. 9/14  
Replaced version:2 (Printed on: 22/05/2017)

DET & RINSE ECO

**POTASSIUM HYDROXIDE**  
Corrosive (OECD method 431 - Perkins M.A. et al., Fund. Appl. Toxicol., 31, 9-18).

ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT  
Irritate the skin and mucous membranes.

**SERIOUS EYE DAMAGE / IRRITATION**

Causes serious eye damage

**POTASSIUM HYDROXIDE**  
Corrosive (OECD method 405 - Johnson g.t. et al, Toxicol. Appl. Pharmacol., 32, 239-245).

ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT  
Irritating.

**RESPIRATORY OR SKIN SENSITISATION**

Does not meet the classification criteria for this hazard class

**POTASSIUM HYDROXIDE**  
0,1% sodium hydroxide solutions have no sensitizin effects (Johnson G.T. et al, Toxicol. Appl. Pharmacol., 32, 239-245). As potassium hydroxide is corrosive further studies are not required.

ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT  
Not classified as a skin sensitizing.

**Respiratory sensitization**

Information not available

**Skin sensitization**

Information not available

**GERM CELL MUTAGENICITY**

Does not meet the classification criteria for this hazard class

**POTASSIUM HYDROXIDE**  
Ames test: negative (Fujita H et al, Kenkyu Nenpo-Tokyo-Toritsu Eisei Kenkyusho, 43, 219-227). No genotoxic effect known. The substance is not expected to be sistematically present in the body during usual manipulation and use conditions. For this reason further studies are not required.

ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT  
Not classified for mutagenic effects.

**CARCINOGENICITY**

Does not meet the classification criteria for this hazard class

**POTASSIUM HYDROXIDE**  
The substance is not expected to be sistematically present in the body during usual manipulation and use conditions. For this reason further studies are not required.

ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT  
Not classified for carcinogenic effects.

**REPRODUCTIVE TOXICITY**

Does not meet the classification criteria for this hazard class

**POTASSIUM HYDROXIDE**  
No adverse effect for reproduction known. The substance is not expected to be sistematically present in the body during usual manipulation and use conditions. For this reason further studies are not required.

ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT  
Not classified for reprotoxic effects.

**Adverse effects on sexual function and fertility**

Information not available

**Adverse effects on development of the offspring**

Information not available

**Effects on or via lactation**

Information not available

**STOT - SINGLE EXPOSURE**

Does not meet the classification criteria for this hazard class

**Target organs**

Information not available

**Route of exposure**

Information not available

**STOT - REPEATED EXPOSURE**

Does not meet the classification criteria for this hazard class



## DET &amp; RINSE ECO

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

**11.2. Information on other hazards**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.  
> 100 mg/l/48h 6,25 mg/l

**SECTION 12. Ecological information****12.1. Toxicity**

## POTASSIUM HYDROXIDE

Danger for environment is given by hydroxyl ion (pH effect). For this reason the effects on organisms depends on the buffering capacity of the aquatic or terrestrial ecosystem. The high water solubility and the low vapour pressure indicates that the products is mainly present in the aquatic compartment. Toxic effects on aquatic organisms are mainly due to the pH.

## POTASSIUM HYDROXIDE

LC50 - for Fish 80 mg/l/96h *Gambusia affinis*

## ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT

LC50 - for Fish &gt; 100 mg/l/96h

EC50 - for Crustacea

Chronic NOEC for Algae / Aquatic Plants

## OXIRANE, 2-METHYL-, POLYMER WITH OXIRANE, MONO(2-PROPYLHEPTYL) ETHER

LC50 - for Fish > 100 mg/l/96h EC50 - for Crustacea  
> 100 mg/l/48h EC50 - for Algae / Aquatic Plants > 100 mg/l/72h

## D-GLUCOPYRANOSE, OLIGOMERIC, HEPTYL GLYCOSIDE

EC50 - for Crustacea > 100 mg/l/48h *Daphnia magna* (OECD 202)  
EC50 - for Algae / Aquatic Plants > 100 mg/l/72h *Pseudokirchneriella subcapitata* (OECD 201).**12.2. Persistence and degradability**

## POTASSIUM HYDROXIDE

Biodegradability: methods for the determination of biodegradability are not applicable to inorganic substances.

## ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT

Rapidly degradable

## OXIRANE, 2-METHYL-, POLYMER WITH OXIRANE, MONO(2-PROPYLHEPTYL) ETHER

Rapidly degradable

## D-GLUCOPYRANOSE, OLIGOMERIC, HEPTYL GLYCOSIDE

Rapidly degradable

**12.3. Bioaccumulative potential**

## POTASSIUM HYDROXIDE

The n-octanol/water partitioning coefficient is not applicable.

D-GLUCOPYRANOSE, OLIGOMERIC, HEPTYL GLYCOSIDE Partition coefficient: n-octanol/water

**12.4. Mobility in soil**

-1,6



## DET &amp; RINSE ECO

The product is completely soluble in water. High mobility in soil is expected.

**12.5. Results of PBT and vPvB assessment**

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

**12.6. Endocrine disrupting properties**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

**12.7. Other adverse effects**

No other significant adverse effects for the environment are known.

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

**CONTAMINATED PACKAGING**

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

HP codes (intact product):

HP8 - Corrosive

**SECTION 14. Transport information****14.1. UN number or ID number**

ADR / RID, IMDG, IATA:

1814

**14.2. UN proper shipping name**

ADR / RID:

POTASSIUM HYDROXIDE SOLUTION

IMDG:

POTASSIUM HYDROXIDE SOLUTION

IATA:

POTASSIUM HYDROXIDE SOLUTION

**14.3. Transport hazard class(es)**

ADR / RID:

Class: 8

Label: 8

IMDG:

Class: 8

Label: 8

IATA:

Class: 8

Label: 8

**14.4. Packing group**

ADR / RID, IMDG, IATA:

II

**14.5. Environmental hazards**

ADR / RID:

NO

IMDG:

NO

IATA:

NO



## DET &amp; RINSE ECO

## 14.6. Special precautions for user

|            |                      |                         |                                 |
|------------|----------------------|-------------------------|---------------------------------|
| ADR / RID: | HIN - Kemler: 80     | Limited Quantities: 1 L | Tunnel restriction code:<br>(E) |
|            | Special provision: - |                         |                                 |
| IMDG:      | EMS: F-A, S-B        | Limited Quantities: 1 L |                                 |
| IATA:      | Cargo:               | Maximum quantity: 30 L  | Packaging instructions:<br>855  |
|            | Pass.:               | Maximum quantity: 1 L   | Packaging instructions:<br>851  |
|            | Special provision:   | A3, A803                |                                 |

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

Information not relevant

## SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006Product

Point 3 - 40

Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  than 0,1%.Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls



UNOX S.p.A.

Revision n. 3  
Dated 16/01/2023  
Printed on 16/01/2023  
Page n. 13/14  
Replaced version:2 (Printed on: 22/05/2017)

DET & RINSE ECO

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Regulation (EC) No. 648/2004

Ingredients according to Regulation (EC) No. 648/2004

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

#### 15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

POTASSIUM HYDROXIDE

ALKANE C6-C8 (EVEN NUMBERED), 1-SULPHONIC ACID, SODIUM SALT

This safety data sheet contains one or more Exposure Scenarios in an integrated form. Contents have been included in sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

## SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

|                      |  |
|----------------------|--|
| <b>Met. Corr. 1</b>  | Substance or mixture corrosive to metals, category 1 |
| <b>Acute Tox. 4</b>  | Acute toxicity, category 4                           |
| <b>Skin Corr. 1A</b> | Skin corrosion, category 1A                          |
| <b>Eye Dam. 1</b>    | Serious eye damage, category 1                       |
| <b>H290</b>          | May be corrosive to metals.                          |
| <b>H302</b>          | Harmful if swallowed.                                |
| <b>H314</b>          | Causes severe skin burns and eye damage.             |
| <b>H318</b>          | Causes serious eye damage.                           |

Use descriptor system:

|             |           |  |
|-------------|-----------|--|
| <b>ERC</b>  | <b>8a</b> | Widespread use of non- reactive processing aid (no inclusion into or onto article, indoor) |
| <b>LCS</b>  | <b>PW</b> | Widespread use by professional workers   |
| <b>PC</b>   | <b>35</b> | Washing and cleaning products  |
| <b>PROC</b> | <b>8b</b> | Transfer of substance or mixture (charging and discharging) at dedicated facilities        |

#### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value



UNOX S.p.A.

Revision n. 3  
Dated 16/01/2023  
Printed on 16/01/2023  
Page n. 14/14  
Replaced version:2 (Printed on: 22/05/2017)

DET & RINSE ECO

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

#### CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11. Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

#### Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 05 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.