

	UNOX S.p.A.	Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 1/16 Replaced version:2 (Printed on: 05/04/2017)	
	DET & RINSE		

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:
Product name
UFI:

DB1016A0
DET&RINSE
PE00-G05A-G008-YH6D

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. PROC: 8b. PC: 35. LCS: PW.	-

Uses Advised Against

Any use other than those identified.

1.3. Details of the supplier of the safety data sheet

Name
Full address
District and Country

Unox S.p.A.
Via Majorana, 22
35010 Cadoneghe (Padova)
Italia

tel. +39 049 86 57 511
fax +39 049 86 57 555

e-mail address of the competent person responsible for the Safety Data Sheet

det.rinse@unox.com

1.4. Emergency telephone number

For urgent inquiries refer to

Verisk-3E
Tel. (+)1-760-476-3961
Tel. (+)0-800-680-0425 (UK)
Access code: 334577
24h/24h

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 1B	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. 2/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE	

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
H314

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

Precautionary statements:

P264
P280
P301+P330+P331
P303+P361+P353
P305+P351+P338

Wash hands thoroughly after handling.
Wear protective gloves / protective clothing / eye protection / face protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER.

Contains: POTASSIUM HYDROXIDE

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

Less than 5%
5% or over but less than 15%

anionic surfactants, amphoteric surfactants, non-ionic surfactants
phosphates

2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification

DIPROPYLENE GLYCOL MONOMETHYL ETHER

CAS 34590-94-8

EC 252-104-2

INDEX -

REACH Reg. 01-2119450011-60-XXXX

x = Conc. %

1 ≤ x < 5

Classification (EC) 1272/2008 (CLP)

Substance with a community workplace exposure limit.

	UNOX S.p.A.		Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 3/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE		

POTASSIUM HYDROXIDE

CAS 1310-58-3	1 ≤ x < 4,5	Met. Corr. 1 H290, Acute Tox. 4 H302, Skin Corr. 1A H314, Eye Dam. 1 H318
EC 215-181-3		Skin Corr. 1B H314: ≥ 2%, Skin Irrit. 2 H315: ≥ 0,5%, Eye Dam. 1 H318: ≥ 2%, Eye Irrit. 2 H319: ≥ 0,5%
INDEX 019-002-00-8		LD50 Oral: 333 mg/kg
REACH Reg. 01-2119487136-33-XXXX		

D-GLUCOPYRANOSE, OLIGOMER C8-C10 GLUCOSIDE

CAS 68515-73-1	1 ≤ x < 3	Eye Dam. 1 H318
EC 500-220-1		
INDEX -		
REACH Reg. 01-2119488530-36-XXXX		

ALCOHOLS, C12-14 ETHOXYLATES / PROPOXYLATES (> 2.5 EO)

CAS 68439-51-0	1 ≤ x < 3	Aquatic Chronic 3 H412
EC 931-986-9		
INDEX -		
REACH Reg. *		

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

ALCOHOLS, C12-14 ETHOXYLATES / PROPOXYLATES (> 2.5 EO)

* 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. 4/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE	

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.

UNOX

UNOX S.p.A.

Revision n. 3
Dated 16/01/2023
Printed on 16/01/2023
Page n. 5/16
Replaced version:2 (Printed on: 05/04/2017)

DET & RINSE

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

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.)
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
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 μεταλλαζιόνους παράγοντες κατά την εργασία ``»
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemičkaljama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados a exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	308	50			SKIN
AGW	DEU	310	50	310	50	
MAK	DEU	310	50	310	50	
VLA	ESP	308	50			SKIN
VLEP	FRA	308	50			SKIN
TLV	GRC	600	100	900	150	
GVI/KGVI	HRV	308	50			
VLEP	ITA	308	50			SKIN

		UNOX S.p.A.				Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 6/16 Replaced version:2 (Printed on: 05/04/2017)			
		DET & RINSE							
VLE	PRT	308	50	SKIN					
NDS/NDSch	POL	240	480						
TLV	ROU	308	50	SKIN					
MV	SVN	308	50	SKIN					
WEL	GBR	308	50	SKIN					
OEL	EU	308	50	SKIN					
TLV-ACGIH		606	100	909 (C)	150 (C)				
Predicted no-effect concentration - PNEC									
Normal value in fresh water				19	mg/l				
Normal value in marine water				1,9	mg/l				
Normal value for fresh water sediment				70,2	mg/kg				
Normal value for marine water sediment				7,02	mg/kg				
Normal value for water, intermittent release				190	mg/l				
Normal value of STP microorganisms				4168	mgl				
Normal value for the terrestrial compartment				2,74	mg/kg				
Health - Derived no-effect level - DNEL / DMEL									
	Effects on consumers				Effects on workers				
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic	
Inhalation			VND	37,2 mg/m3			VND	310 mg/m3	
Skin			VND	15 mg/kg/d			VND	65 mg/kg/d	
POTASSIUM HYDROXIDE									
Threshold Limit Value									
Type	Country	TWA/8h		STEL/15min	Remarks / Observations				
		mg/m3	ppm	mg/m3	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									
	Effects on consumers				Effects on workers				
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic	
Inhalation			1 mg/m3	VND			1 mg/m3	VND	
D-GLUCOPYRANOSE, OLIGOMER C8-C10 GLUCOSIDE									
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				0,487	mg/kg				
Normal value for marine water sediment				0,048	mg/kg				
Normal value for water, intermittent release				0,27	mg/l				

	UNOX S.p.A.	Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 7/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE	

Normal value of STP microorganisms				560	mg/l			
Normal value for the terrestrial compartment				0,654	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
Oral				37,5 mg/kg/d	VND			
Inhalation				VND	420 mg/m3			
Skin				VND	357000 mg/kg/d		VND	595000 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 II 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 airtight protective 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	straw yellow	
Odour	characteristic	
Odour threshold	not applicable	Reason for missing data:Not applicable to

	UNOX S.p.A.	Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 8/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE	

Melting point / freezing point	not determined	mixtures. Reason for missing data:no test available
Initial boiling point	> 100 °C	
Flammability	not applicable (liquid product).	Reason for missing data:The product is not explosive. Reason for missing data:The product is not explosive.
Lower explosive limit	not applicable	
Upper explosive limit	not applicable	
Flash point	> 60 °C	
Auto-ignition temperature	not available	Temperature: 20 °C
Decomposition temperature	not available	
pH	14	
Kinematic viscosity	not available	
Solubility	soluble in water	
Partition coefficient: n-octanol/water	not applicable	
Vapour pressure	not available	
Density and/or relative density	1,10-1,25	Reason for missing data:Not applicable to mixtures.
Relative vapour density	not available	
Particle characteristics	not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	4,60 %
VOC (volatile carbon)	2,61 %
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. 9/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE	
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		
<u>Metabolism, toxicokinetics, mechanism of action and other information</u> Information not available		
<u>Information on likely routes of exposure</u> Dermal. Inhalation (in case of aerosol formation only - use not recommended).		
<u>Delayed and immediate effects as well as chronic effects from short and long-term exposure</u> 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.		
<u>Interactive effects</u> No other adverse effects 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)	
DIPROPYLENE GLYCOL MONOMETHYL ETHER		
LD50 (Dermal):	9500 mg/kg rabbit	
LD50 (Oral):	5660 mg/kg rat	
POTASSIUM HYDROXIDE		
LD50 (Oral):	333 mg/kg rat (OECD method 425 - Bruce R.D., Fund. Appl. Toxicol., 8, 97-100).	
D-GLUCOPYRANOSE, OLIGOMER C8-C10 GLUCOSIDE		
LD50 (Dermal):	> 2000 mg/kg Coniglio, equivalente o simile a OECD linea guida 402	
LD50 (Oral):	> 2000 mg/kg Ratto - OECD linea guida 423	
ALCOHOLS, C12-14 ETHOXYLATES / PROPOXYLATES (> 2.5 EO)		
LD50 (Oral):	> 2000 mg/kg	
SKIN CORROSION / IRRITATION		
Corrosive for the skin		

	UNOX S.p.A.	Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 10/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE	
POTASSIUM HYDROXIDE Corrosive (OECD method 431 - Perkins M.A. et al., Fund. Appl. Toxicol., 31, 9-18).		
<u>SERIOUS EYE DAMAGE / IRRITATION</u> Causes serious eye damage		
POTASSIUM HYDROXIDE Corrosive (OECD method 405 - Johnson g.t. et al, Toxicol. Appl. Pharmacol., 32, 239-245).		
<u>RESPIRATORY OR SKIN SENSITISATION</u> Does not meet the classification criteria for this hazard class		
POTASSIUM HYDROXIDE Not sensitizing (Johnson G.T. et al, Toxicol. Applied Pharmacol., 32, 239-245).		
<u>Respiratory sensitization</u> Information not available		
<u>Skin sensitization</u> Information not available		
<u>GERM CELL MUTAGENICITY</u> Does not meet the classification criteria for this hazard class		
<u>CARCINOGENICITY</u> Does not meet the classification criteria for this hazard class		
<u>REPRODUCTIVE TOXICITY</u> Does not meet the classification criteria for this hazard class		
<u>Adverse effects on sexual function and fertility</u> Information not available		
<u>Adverse effects on development of the offspring</u> Information not available		
<u>Effects on or via lactation</u> Information not available		
<u>STOT - SINGLE EXPOSURE</u> Does not meet the classification criteria for this hazard class		
<u>Target organs</u> Information not available		
<u>Route of exposure</u> Information not available		
<u>STOT - REPEATED EXPOSURE</u> Does not meet the classification criteria for this hazard class		
<u>Target organs</u> Information not available		
<u>Route of exposure</u> Information not available		

	UNOX S.p.A.	Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 11/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE	
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.		
SECTION 12. Ecological information		
12.1. Toxicity		
DIPROPYLENE GLYCOL MONOMETHYL ETHER LC50 - for Fish > 10000 mg/l/96h Pesce EC50 - for Crustacea 1919 mg/l/48h Daphnia magna EC50 - for Algae / Aquatic Plants > 969 mg/l/72h Alga D-GLUCOPYRANOSE, OLIGOMER C8-C10 GLUCOSIDE LC50 - for Fish > 100 mg/l/96h Brachidanio rerio EC50 - for Crustacea > 10 mg/l/48h Daphnia magna EC50 - for Algae / Aquatic Plants > 10 mg/l/72h Scenedesmus subspicatus Chronic NOEC for Fish 1,8 mg/l Brachydanio rerio Chronic NOEC for Crustacea 1 mg/l Scenedesmus subspicatus ALCOHOLS, C12-14 ETHOXYLATES / PROPOXYLATES (> 2.5 EO) EC50 - for Crustacea > 1 mg/l/48h Daphnia magna EC50 - for Algae / Aquatic Plants > 1 mg/l/72h Desmodesmus subspicatus EC10 for Algae / Aquatic Plants > 0,1 mg/l/72h Desmodesmus subspicatus POTASSIUM HYDROXIDE LC50 - for Fish 80 mg/l/96h Gambusia affinis		
12.2. Persistence and degradability		
POTASSIUM HYDROXIDE Biodegradability: methods for the determination of biodegradability are not applicable to inorganic substances. DIPROPYLENE GLYCOL MONOMETHYL ETHER Rapidly degradable D-GLUCOPYRANOSE, OLIGOMER C8-C10 GLUCOSIDE Rapidly degradable ALCOHOLS, C12-14 ETHOXYLATES / PROPOXYLATES (> 2.5 EO) Rapidly degradable		
12.3. Bioaccumulative potential		
D-GLUCOPYRANOSE, OLIGOMER C8-C10 GLUCOSIDE Partition coefficient: n-octanol/water < 1,77		
12.4. Mobility in soil		
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 ≥ than 0,1%.		
12.6. Endocrine disrupting properties		

	UNOX S.p.A.	Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 12/16 Replaced version:2 (Printed on: 05/04/2017)										
	DET & RINSE											
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)												
<table><tr><td>ADR / RID:</td><td>Class: 8</td><td>Label: 8</td><td rowspan="3"></td></tr><tr><td>IMDG:</td><td>Class: 8</td><td>Label: 8</td></tr><tr><td>IATA:</td><td>Class: 8</td><td>Label: 8</td></tr></table>			ADR / RID:	Class: 8	Label: 8		IMDG:	Class: 8	Label: 8	IATA:	Class: 8	Label: 8
ADR / RID:	Class: 8		Label: 8									
IMDG:	Class: 8		Label: 8									
IATA:	Class: 8		Label: 8									
14.4. Packing group												
ADR / RID, IMDG, IATA: III												
14.5. Environmental hazards												
ADR / RID: NO IMDG: NO												

	UNOX S.p.A.		Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 13/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE		

IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80	Limited Quantities: 5 L	Tunnel restriction code: (E)
	Special provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities: 5 L	
		Maximum quantity: 60 L	
IATA:	Cargo:	Maximum quantity: 5 L	Packaging instructions: 856
	Pass.:	A3, A803	Packaging instructions: 852
	Special provision:		

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 1907/2006

Product Point	3
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 ≥ 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

UNOX

<

	UNOX S.p.A.	Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 15/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE	

- CE: Identifier in EHS (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
- 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.

	UNOX S.p.A.	Revision n. 3 Dated 16/01/2023 Printed on 16/01/2023 Page n. 16/16 Replaced version:2 (Printed on: 05/04/2017)
	DET & RINSE	

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.