## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 07/04/2017 Revision date: 07/04/2017 Version: 2.1

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

#### 1.1. Product identifier

: Mixtures Product form Trade name Det&Rinse Plus : DB1015A0 Product code

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

#### 1.2.1. Relevant identified uses

Main use category Detergents : Professional Industrial/Professional use spec Use of the substance/mixture Oven cleaners

#### 1.2.2. Uses advised against

Any use that is not described in this sheet and in the technical documentation is to be considered incorrect/not recommended

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

**UNOX SpA** VIA MAJORANA,22 35010 Cadoneghe - Italy T +39 049 86.57.511 - F +39 049 86.57.555

Det.Rinse@unox.it

#### 1.4. Emergency telephone number

Emergency number (24h/24) : Tel. (+)1 760 476 3961

Tel (+)0-800-680-0425 (only UK)

Access Code: 334577

National Poisons Information Service (NPIS) Email: director.birmingham.unit@npis.org

Website: http://www.npis.org/

#### SECTION 2: Hazards identification

#### Classification of the substance or mixture

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

Corrosive to metals, Category 1 H290 Skin corrosion/irritation, Category 1A H314 Serious eye damage/eye irritation, Category 1 H318

Full text of H statements : see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

Precautionary statements (CLP)

#### 2.2. Label elements

## Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

GHS05

Signal word (CLP) Danger

Hazardous ingredients potassium hydroxide, caustic potash : H290 - May be corrosive to metals Hazard statements (CLP)

H314 - Causes severe skin burns and eye damage

P264 - Wash hands, forearms and face thoroughly after handling P280 - Wear protective gloves/protective clothing/eye protection/face protection

P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

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contact lenses, if present and easy to do. Continue rinsing P310 - Immediately call a POISON CENTER or doctor P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

#### Other hazards

No additional information available

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

#### Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
potassium hydroxide, caustic potash	(CAS No) 1310-58-3 (EC no) 215-181-3 (EC index no) 019-002-00-8 (REACH-no) 01-2119487136-33	5 - 15	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314
D-Glucopyranose, oligomeric, decyl octyl glycosides	(CAS No) 68515-73-1 (EC no) 500-220-1 (REACH-no) 01-2119488530-36	5 - 15	Eye Dam. 1, H318
Dipropylene glycol monomethyl ether-	(CAS No) 34590-94-8 (EC no) 252-104-2 (REACH-no) 01-2119450011-60	5 - 15	Not classified
Alcohols, C12-14, ethoxylated propoxylated	(CAS No) 68439-51-0 (EC no) 614-484-1 (REACH-no) Not available	1 - 4	Aquatic Chronic 3, H412
Poly(oxy-1,2-ethanediyl), .alpha(carboxymethyl)omega(hexyloxy)	(CAS No) 105391-15-9 (EC no) 600-651-6 (REACH-no) Not available	1 - 4	Skin Irrit. 2, H315 Eye Dam. 1, H318
Poly(oxy-1,2-ethanediyl), .alpha(carboxymethyl)omega(octyloxy)	(CAS No) 53563-70-5 (EC no) 611-013-1 (REACH-no) Not available	1 - 4	Eye Dam. 1, H318

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits
potassium hydroxide, caustic potash	(CAS No) 1310-58-3	( 0.5 = <c 2)="" 2,="" <="" h315<="" irrit.="" skin="" th=""></c>
	(EC no) 215-181-3 (EC index no) 019-002-00-8	( 0.5 = <c 2)="" 2,="" <="" eye="" h319<br="" irrit.="">( 2 =<c 1b,="" 5)="" <="" corr.="" h314<="" skin="" td=""></c></c>
	(REACH-no) 01-2119487136-33	(C >= 5) Skin Corr. 1A, H314

Full text of H-statements; see section 16

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

#### 4.1. Description of first aid measures

First-aid measures general Self-protection of the first aider.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek First-aid measures after inhalation

medical attention immediately

First-aid measures after skin contact Immediately rinse with plenty of water (for at least 15 minutes). Remove contaminated clothing immediately and dispose of safely. Wash contaminated clothing before reuse. Seek medical

attention immediately.

: In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes First-aid measures after eye contact holding eyelids apart. Subsequently consult an ophthalmologist. Remove contact lenses, if

present and easy to do. Continue rinsing. Protect uninjured eve.

Immediately call a POISON CENTER or doctor/ physician. Never give anything by mouth to an First-aid measures after ingestion unconscious person. Do not induce vomiting.

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

Symptoms/injuries after inhalation : Corrosive to respiratory system. Causes burns.

Symptoms/injuries after skin contact : Causes severe burns.

Symptoms/injuries after eye contact : Causes serious eye damage. Corneal opacity. Iris lesions.

Symptoms/injuries after ingestion Severe irritation or burns to the mouth, throat, oesophagus, and stomach.

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

Keep under medical supervision for at least 48 hours. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

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#### 5.1. Extinguishing media

Suitable extinguishing media : Water fog. carbon dioxide (CO2), dry chemical powder, foam.

Unsuitable extinguishing media : Do not use water jet.

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

Fire hazard : On burning: release of (highly) toxic gases/vapours

Explosion hazard None known

Hazardous decomposition products in case of Hazardous combustion products. On combustion forms: carbon oxides (CO and CO2).

#### 5.3. Advice for firefighters

Precautionary measures fire Evacuate the personnel away from the fumes

Firefighting instructions Cool down the containers exposed to heat with a water spray. Move undamaged containers

from immediate hazard area if it can be done safely.

Protective equipment for firefighters Extra personal protection: complete protective clothing including self-contained breathing

Other information Do not allow run-off from fire fighting to enter drains or water courses.

#### SECTION 6: Accidental release measures

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

#### For non-emergency personnel

Protective equipment Wear personal protection equipment. Do not attempt to take action without suitable protective

Emergency procedures Immediately contact emergency personnel. Eliminate all ignition sources if safe to do so.

Spilled material may present a slipping hazard.

#### 6.1.2. For emergency responders

Protective equipment Wear suitable protective clothing, gloves and eye/face protection. Do not attempt to take action

without suitable protective equipment. In presence of product's residue, total impervious

protective suits, gloves, and boots must be worn.

: Evacuate unnecessary personnel. Eliminate all ignition sources if safe to do so. Spilled material Emergency procedures

may present a slipping hazard. Avoid inhalation of vapours. Ventilate affected area. Consult an

#### **Environmental precautions**

Avoid release to the environment. Avoid sub-soil penetration. Relevant water authorities should be notified of any large spillage to water course or

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

For containment Stop leak if safe to do so. Recover small spills with a suitable absorbent, like diatomaceous

earth. Recover large spills by pumping (use an explosion proof or hand pump)

Methods for cleaning up Ventilate affected area. Wear personal protection equipment. Collect in closed containers for

disposal. Wash with plenty of soap and water. Consult the appropriate authorities about waste disposal. Wash contaminated area with large amounts of water.

Other information Do not allow uncontrolled discharge of product into the environment.

#### 6.4. Reference to other sections

For disposal of residues refer to section 13: Disposal considerations. For further information refer to section 8: "Exposure controls/personal protection".

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

#### Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing mist or vapor . Keep away from sources of ignition - No smoking. Take any precaution to avoid mixing with Incompatible materials. Open

and handle container with care. Ensure operatives are trained to minimise exposures. Avoid

formation of vapours

Hygiene measures Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling

Contaminated work clothing should not be allowed out of the workplace.

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

Technical measures Provide adequate ventilation

Storage conditions : Store tightly closed in a dry, cool and well-ventilated place. Keep out of direct sunlight.

Acids. alkali. oxidizing agents. Flammable materials. Peroxides. Incompatible materials

Storage temperature

Heat and ignition sources Keep away from open flames, hot surfaces and sources of ignition.

Prohibitions on mixed storage : Keep away from food, drink and animal feeding stuffs.

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Storage area : Use explosion-proof lighting equipment.

: stainless steel. Polyvinylchloride (PVC) . Polyethylene. Teflon. Neoprene. Unsuitable material: Packaging materials Do not use aluminum, tin or zinc containers, Copper, Lead, Tin (inorganic compounds).

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

No additional information available

## SECTION 8: Exposure controls/personal protection

#### Control parameters

Dipropylene glycol monom	ethyl ether- (34590-94-8)	
EU	IOELV TWA (mg/m³)	308 mg/m³
EU	IOELV TWA (ppm)	50 ppm
Austria	MAK (mg/m³)	307 mg/m³ (mixed isomers)
Austria	MAK (ppm)	50 ppm (mixed isomers)
Austria	MAK Short time value (mg/m³)	614 mg/m³ (isomers mixtures)
Austria	MAK Short time value (ppm)	100 ppm (isomers mixtures)
Belgium	Limit value (mg/m³)	308 mg/m³
Belgium	Limit value (ppm)	50 ppm
Bulgaria	OEL TWA (mg/m³)	308 mg/m³
Bulgaria	OEL TWA (ppm)	50 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	308 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	50 ppm
Cyprus	OEL TWA (mg/m³)	308 mg/m³
Cyprus	OEL TWA (ppm)	50 ppm
Czech Republic	Expoziční limity (PEL) (mg/m³)	270 mg/m³
Denmark	Grænseværdie (langvarig) (mg/m³)	309 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	50 ppm
Estonia	OEL TWA (mg/m³)	308 mg/m³
Estonia	OEL TWA (ppm)	50 ppm
Finland	HTP-arvo (8h) (mg/m³)	310 mg/m³
Finland	HTP-arvo (8h) (ppm)	50 ppm
France	VME (mg/m³)	308 mg/m³ (restrictive limit)
France	VME (ppm)	50 ppm (restrictive limit)
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	310 mg/m³ (isomer mixture)
Germany	TRGS 900 Occupational exposure limit value (ppm)	50 ppm (isomer mixture)
Gibraltar	OEL TWA (mg/m³)	308 mg/m³
Gibraltar	OEL TWA (ppm)	50 ppm
Greece	OEL TWA (mg/m³)	600 mg/m³
Greece	OEL TWA (ppm)	100 ppm
Greece	OEL STEL (mg/m³)	900 mg/m³
Greece	OEL STEL (ppm)	150 ppm
Hungary	AK-érték	308 mg/m³
Hungary	CK-érték	308 mg/m² (Substances with European indicative limits (96/94/EC, 2000/39/EC, 2006/15/EC, 2009/161/EU), which currently has no peak limit concentration. In these cases, Annex 3.1. should be used exercised)
Ireland	OEL (8 hours ref) (mg/m³)	308 mg/m³
Ireland	OEL (8 hours ref) (ppm)	50 ppm
Ireland	OEL (15 min ref) (mg/m3)	924 mg/m³ (calculated)
Ireland	OEL (15 min ref) (ppm)	150 ppm (calculated)
Italy	OEL TWA (mg/m³)	308 mg/m³
Italy	OEL TWA (ppm)	50 ppm
Latvia	OEL TWA (mg/m³)	308 mg/m³
Latvia	OEL TWA (ppm)	50 ppm
Lithuania	IPRV (mg/m³)	300 mg/m³
Lithuania	IPRV (ppm)	50 ppm

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Dipropylene glycol mor	nomethyl ether- (34590-94-8)	
Lithuania	TPRV (mg/m³)	450 mg/m³
Lithuania	TPRV (ppm)	75 ppm
Malta	OEL TWA (mg/m³)	308 mg/m³
Malta	OEL TWA (ppm)	50 ppm
Netherlands	Grenswaarde TGG 8H (mg/m³)	300 mg/m³
Poland	NDS (mg/m³)	240 mg/m³ (mixture of isomers)
Poland	NDSCh (mg/m³)	480 mg/m³ (mixture of isomers: Propanol, 1(or 2)-(2-methoxymethylethoxy)-, Propanol, 1-(1-methoxymethylethoxy)
Portugal	OEL TWA (mg/m³)	308 mg/m³ (indicative limit value)
Portugal	OEL TWA (ppm)	50 ppm (indicative limit value)
Portugal	OEL STEL (ppm)	150 ppm
Romania	OEL TWA (mg/m³)	308 mg/m³
Romania	OEL TWA (ppm)	50 ppm
Slovakia	NPHV (priemerná) (mg/m³)	308 mg/m³
Slovakia	NPHV (priemerná) (ppm)	50 ppm
Slovakia	NPHV (Hraničná) (mg/m³)	568 mg/m³
Slovenia	OEL TWA (mg/m³)	308 mg/m³
Slovenia	OEL TWA (ppm)	50 ppm
Spain	VLA-ED (mg/m³)	308 mg/m³ (indicative limit value)
Spain	VLA-ED (mg/m²) VLA-ED (ppm)	50 ppm (indicative limit value)
Sweden	nivågränsvärde (NVG) (mg/m³)	300 mg/m³
Sweden		· · · · · · · · · · · · · · · · · · ·
	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	450 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	75 ppm
United Kingdom	WEL TWA (mg/m³)	308 mg/m³
United Kingdom	WEL TWA (ppm)	50 ppm
United Kingdom	WEL STEL (mg/m³)	924 mg/m³ (calculated)
United Kingdom	WEL STEL (ppm)	150 ppm (calculated)
Norway	Grenseverdier (AN) (mg/m³)	300 mg/m³
Norway	Grenseverdier (AN) (ppm)	50 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	300 mg/m³
Norway	Grenseverdier (Korttidsverdi) (ppm)	50 ppm
Switzerland	VME (mg/m³)	300 mg/m³
Switzerland	VME (ppm)	50 ppm
Switzerland	VLE (mg/m³)	300 mg/m³
Switzerland	VLE (ppm)	50 ppm
Australia	TWA (mg/m³)	308 mg/m³
Australia	TWA (ppm)	50 ppm
Canada (Quebec)	VECD (mg/m³)	909 mg/m³
Canada (Quebec)	VECD (ppm)	150 ppm
Canada (Quebec)	VEMP (mg/m³)	606 mg/m³
Canada (Quebec)	VEMP (ppm)	100 ppm
USA - ACGIH	ACGIH TWA (ppm)	100 ppm
USA - ACGIH	ACGIH STEL (ppm)	150 ppm
USA - IDLH	US IDLH (ppm)	600 ppm
USA - NIOSH	NIOSH REL (TWA) (mg/m³)	600 mg/m³
USA - NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
USA - NIOSH	NIOSH REL (STEL) (mg/m³)	900 mg/m³
USA - NIOSH	NIOSH REL (STEL) (ppm)	150 ppm
USA - OSHA	OSHA PEL (TWA) (mg/m³)	600 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	100 ppm
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#### 8.2. Exposure controls

#### Appropriate engineering controls:

Provide adequate ventilation

#### Personal protective equipment:

Safety glasses. Gloves. Protective clothing. An approved organic vapour respirator/supplied air or self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits.

#### Materials for protective clothing:

Rubbers. PVC (Polyvinyl chloride). Natural fibres (e.g. cotton)

#### Hand protection:

Chemical resistant gloves (according to European standard NF EN 374 or equivalent). Break through time: ≥ 480 min. Thickness of glove material: 0.4-0.5 mm. Chemical resistant gloves (nitrile-rubber, PVC, neoprene)

#### Eye protection:

Wear eye glasses with side protection according to EN 166. Do not wear contact lenses

#### Skin and body protection:

Chemical resistant protective apron/clothing (tested to EN 14605 or equivalent)

#### Respiratory protection:

An approved organic vapour respirator/supplied air or self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits. Wear a respirator conforming to EN140 with Type A/P2 filter or better. EN 14387. Combination filtering device (DIN EN 141)







#### SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : straw yellow.
Odour : characteristic.
Odour threshold : No data available
pH : 14 at 20°C
Relative evaporation rate (butylacetate=1) : No data available

Relative evaporation rate (butylacetate=1) : No data available Freezing point : No data available : No dat

Flash point : No data available
Auto-ignition temperature : No data available

Decomposition temperature : No data available Flammability (solid, gas) : Not flammable : No data available Vapour pressure Relative vapour density at 20 °C : No data available : No data available Relative density Density : 1.1 - 1.25 kg/l Solubility : soluble in water. Log Pow : No data available Viscosity, kinematic : No data available

Explosive properties : Not expected to be explosive as none of the components is classified as explosive.

: No data available

Oxidising properties : Not oxidising.

Explosive limits : No data available

#### 9.2. Other information

Viscosity, dynamic

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VOC content : 5.5 %

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## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Reacts exothermically with (some) acids. Reacts with (strong) oxidizers.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

None under normal conditions.

## 10.4. Conditions to avoid

Keep away from acids. Oxidizing agent. Peroxides.

#### 10.5. Incompatible materials

Acids. Oxidizing agent. Peroxides. Flammable materials.

#### 10.6. Hazardous decomposition products

On combustion or on thermal decomposition (pyrolysis) releases: Nitrogen oxides (NOx). Carbon dioxide (CO2). Phosphorus oxides. Sulfur oxides. Pyrolysis products, toxic.

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

potassium hydroxide, caustic potash (1310-58-3)			
LD50 oral rat	333 mg/kg		
Alcohols, C12-14, ethoxylated	Alcohols, C12-14, ethoxylated propoxylated (68439-51-0)		
LD50 oral rat	> 2000 mg/kg		
D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1)			
LD50 oral rat	> 2000 mg/kg (OECD 423 method)		
LD50 dermal rat	> 2000 mg/kg (OECD 402 method)		
Dipropylene glycol monometh	Dipropylene glycol monomethyl ether- (34590-94-8)		
LD50 oral rat	5400 mg/kg		
LD50 dermal rat	> 13000 mg/kg		
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Skin corrosion/irritation : Causes severe skin burns and eye damage.

pH: 14 at 20°C

Serious eye damage/irritation : Causes serious eye damage.

pH: 14 at 20°C : Not classified

Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified Reproductive toxicity : Not classified STOT-single exposure : Not classified STOT-repeated exposure : Not classified Aspiration hazard : Not classified : Not classified

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

potassium hydroxide, caustic potash (1310-58-3)			
LC50 fish 1	80 mg/l Gambusia affinis		
Alcohols, C12-14, ethoxylated propoxylated (68439-51-0)			
LC50 fish 1	1 - 10 mg/l (OECD 203 method)		
EC50 Daphnia 1	1 - 10 (OECD 202 method)		
EC50 other aquatic organisms 1	> 10000 mg/l Bacteria toxicity		
EC50 72h algae (1)	0.1 - 1 mg/l (OECD 201 method)		
EC50 72h algae (2)	1 - 10 mg/l (OECD 201 method)		
D-Glucopyranose, oligomeric, decyl octy	D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1)		
LC50 fish 1	> 100 mg/l Brachydario rerio		
EC50 Daphnia 1	10 - 100 mg/l		
EC50 72h algae (1)	10 - 100 mg/l Scenedesmus subspicatus		
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D-Glucopyranose, oligomeric, decyl octyl glycosides (68515-73-1)		
NOEC chronic fish	1.8 mg/l Brachydanio rerio	
NOEC chronic crustacea	1 mg/l Daphinia Magna	
Dipropylene glycol monomethyl ether- (34590-94-8)		
LC50 fish 1	> 10000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])	
EC50 Daphnia 1	1919 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
EC50 other aquatic organisms 1	4168 mg/l Active sludge	
EC50 72h algae (1)	> 969 mg/l Pseudokirchneriella subcapitata	

#### 12.2. Persistence and degradability

potassium hydroxide, caustic potash (1310-58-3)		
Persistence and degradability	The methods for determining the biological degradability are not applicable to inorganic substances.	
Dipropylene glycol monomethyl ether- (34590-94-8)		
Persistence and degradability	Readily biodegradable.	
Biodegradation	96 % 28 day	

Biodegradation	96 % 28 day				
12.3. Bioaccumulative potential					
Det&Rinse Plus					
Bioaccumulative potential	Low bioaccumulation potential.				
potassium hydroxide, caustic potash (1310-58	3-3)				
Bioaccumulative potential	No bioaccumulation.				
Alcohols, C12-14, ethoxylated propoxylated (6	68439-51-0)				
Log Pow	< 1.77				
Bioaccumulative potential	No bioaccumulation.				
Dipropylene glycol monomethyl ether- (34590-94-8)					
Log Pow	0.004				
Bioaccumulative potential	No bioaccumulation.				
12.4. Mobility in soil					

Det&Rinse Plus	
Ecology - soil E	Expected to be highly mobile in soil.

## 2.5. Results of PBT and vPvB assessment

Det&Rinse Plus				
Results of PBT assessment	The components in this formulation do not meet the criteria for classification as PBT or vPvB.			

## 12.6. Other adverse effects

No additional information available

## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste treatment methods : Reuse or recycle following decontamination. External recovery and recycling of waste should comply with applicable local and/or national regulations. Recycling is preferred to disposal or incineration.

Waste disposal recommendations : Dispose of this material and its container at hazardous or special waste collection point.

HP Code : HP4 - "Irritant — skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye

HP8 - "Corrosive:" waste which on application can cause skin corrosion

## **SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID			
14.1. UN number							
1814	1814	1814	1814	1814			
14.2. UN proper shipping name							
POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION	Potassium hydroxide solution	POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION			
Transport document description							
UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II, (E)	UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II	UN 1814 Potassium hydroxide solution, 8, II	UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II	UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II			

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ADR IMDG		IATA	ADN	RID			
14.3. Transport hazard class(es)							
8	8	8	8	8			
				8			
14.4. Packing group							
II	II	II	II	II			
14.5. Environmental hazards							
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No			
No supplementary information available							

#### 14.6. Special precautions for user

- Overland transport

Limited quantities (ADR) : 1L Transport category (ADR) : 2 Tunnel restriction code (ADR) : E

- Transport by sea

Limited quantities (IMDG) : 1L : F-A EmS-No. (Fire) : S-B EmS-No. (Spillage)

- Air transport

PCA Limited quantities (IATA) : Y840 PCA packing instructions (IATA) : 851 PCA max net quantity (IATA) : 1L CAO packing instructions (IATA) : 855

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 5.5 %

Contains: 5% - 15 % non-ionic surfactants

Contains: < 5% anionic surfactants, amphoteric surfactants, phosphonates

Seveso Information : None

#### 15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

Netherlands

: None of the components are listed SZW-liist van kankerverwekkende stoffen SZW-lijst van mutagene stoffen : None of the components are listed NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen – Borstvoeding

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NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen - Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen - Ontwikkeling

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

For the following substances of this mixture a chemical safety assessment has been carried out

For the following substances of this mixture a chemical safety assessment has been carried out

potassium hydroxide, caustic potash

15.2. Chemical safety assessment

D-Glucopyranose, oligomeric, decyl octyl glycosides

#### **SECTION 16: Other information**

#### Abbreviations and acronyms:

SDS	Safety Data Sheet
	CAS - Chemical Abstracts Service
	GHS - Globally Harmonised System
	CSR - Chemical Safety Report
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
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
	PVC (Polyvinyl chloride).
PNEC	Predicted No-Effect Concentration
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

Other information

: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. It is the user's responsibility to take mentioned precaution measures and ensure that this information is complete and sufficient for the use of this product.

#### Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Met. Corr. 1	Corrosive to metals, Category 1	
Skin Corr. 1A	Skin corrosion/irritation, Category 1A	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
H290	May be corrosive to metals	
H302	Harmful if swallowed	
H314	Causes severe skin burns and eye damage	
H315	Causes skin irritation	
H318	Causes serious eye damage	
H412	Harmful to aquatic life with long lasting effects	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

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Met. Corr. 1	H290	Calculation method
Skin Corr. 1A	H314	Calculation method
Eye Dam. 1	H318	Calculation method

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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## ANNEX. Exposure scenario for ingredients

Sector of use (SU).	SU 22		
Product category (PC).	PC35		
Process category (PROC).	PROC2		
Environment release category (ERC).	ERC8a		
Contributing scenario controlling environmental exposure			
Product characteristics.	Covers concentrations up to 100%		
Frequency and duration of use.	Continued exposure		
Technical and specific conditions on-site to reduce or limit the drainage, emissions to the air and discharge to the earth.	A regular check of the pH is required in case of drainage into open waters. In general the drainage should take place in such a way as to minimize ar modifications to the pH of the surface water. In general the majority of aqual organisms are able to tolerate pH values between 6-9, as reported in the description of the OECD standard tests on aquatic organisms. The measures risk management for the environment are aimed at avoiding drainage into publidrainage systems or surface water, in the event in which such discharges wou be able to cause significant changes to the pH.		
Conditions and measures regarding the external treatment of waste for disposal.	The waste must be reused or discharged into industrial water drains and neutralized, if necessary.		
Contributing scenario controlling worker exposure			
Product characteristics	Covers concentrations up to 100%		
Quantity used	0,6 kg		
Duration of exposure (per day)	>240 min		
Technical conditions and measures at process level (source) to prevent release	Substitute manual procedures with automatic procedures where possible. Use closed systems or covered open systems. Use suction pumps. Transfer via closed circuit lines. Ensure that the transfer of materials is subject to containment measures or under suction ventilation. Adopt good standards of general ventilation. Natural ventilation comes from doors, windows. Controlled ventilation means air that is supplied from or extracted from an electrically powered ventilator. Avoid spray. Reduction of volumes of liquid in wells to prevent/collect any possible spills.		
Organizational measures to prevent /limit releases, dispersion and exposure	Workers present in areas of risk or involved in working processes that are at risk must be training to: a) avoid working without protection of the respiratory tract, b) understand the corrosive properties and, particularly the effects of inhalation, of follow the safety instructions given by the employer.  The employer must make sure that the required PPE are available and are used according to their relative instructions. Substitute, where possible, manual processes with automatic processes and/or closed circuits. This would prevent the formation of fogs and aerosols that are irritants and potential sprays. Check the potential exposure using measures such as closed or autonomous systems, well equipped and maintained equipment and a plentiful general ventilation, discharge the systems and empty the pipelines before opening the installation. As far as possible, empty and rinse the equipment before carrying out any maintenance work. In case there is potential for exposure, ensure that the workers involved are informed on the nature of the exposure and on the fundamental methods to minimize the exposure. Ensure that the required personal protective equipment is available. Collect the spilled material and dispose of the waste according to the precautions foreseen by the law. Monitor the effectiveness of the contro measures. Evaluare the necessity of monitoring health. Identify and implement collective measures. Ensure that the control measures are egularly checked and respected. On-site checks to make sure that the risk managements measures are used in the correct way and that the operative conditions are followed.		
Conditions and measures related to personal protection, hygiene and health evaluation	In the event of the formation of powders or aerosols use PPE to protect the respiratory tract with the appropriate filter (P2). Wear suitable EN374 approved gloves. Wear safety glasses with side protection according to EN 166. Wear suitable protective clothing, aprons, shields and overalls. In the event of risk o spray: wear rubber boots.		

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			The substance dissociates on contact with water, the only effect is an increase in pH, therefore after having passed through the water treatment plant the exposure is to be considered negligible and without any risk.			
Workers (ECETOC TRA model)						
Contributing scenario	Specific conditions	Method of exposure		Level of exposure	PNEC	RCR
PROC2	Liquid	Inhalation		0,23 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	0,23

#### Guidance to DU to evaluate whether he works inside the boundaries set by the ES

If no measured data is available, the downstream user can use scaling instrument such as ECETOC TRA.

Important note: showing a safe use, with respect to the estimated exposure with DNEL in the long term, the acute DNEL is also covered (according to

guide R.14, it is possible to deduce the acute levels of exposure by multiplying the estimate long term exposure by a factor of 2).

The exposure by inhalation is estimated with ECETOC TRA. For the scaling see: <a href="http://ecetoc.org/tra">http://ecetoc.org/tra</a>.

Only correctly trained personnel should use scaling methods to see if the operative conditions and risk management are within the limits indicated in the exposure scenario.

## Additional advice for good practice

It is assumed that adequate standards for hygiene in the workplace are adopted.

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