



3.3/2 Eye Irrit. 2 H319
3.2/2 Skin Irrit. 2 H315
1-5 % Alcohol (C9-11) polyglycolether CAS: 68439-46-3
Xn,Xi; R22-41 3.1/4/Oral Acute Tox. 4 H302
3.3/1 Eye Dam. 1 H318
0.1-1.0 % Alkylamine oxide REACH N°: 01-2119490061-47, CAS: 61788-90-7, EC: 931-292-6 Xn,Xi,N; R22-38-41-50 3.1/4/Oral Acute Tox. 4 H302
3.2/2 Skin Irrit. 2 H315
3.3/1 Eye Dam. 1 H318
4.1/A1 Aquatic Acute 1 H400
4.1/C2 Aquatic Chronic 2 H411
Declaration of ingredients according to Detergent Regulation 648/2004: non-ionic surfactants < 5 %
For the complete text of the hazard and risk phrases refer to paragraph 16
SECTION 4: First aid measures
4.1. Description of first aid measures In case of skin contact:
Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed
immediately with plenty of running water and possibly with soap.
OBTAIN IMMEDIATE MEDICAL ATTENTION.
Wash thoroughly the body (shower or bath). Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.
In case of eves contact:
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Protect uninjured eye. In case of Ingestion:
Do NOT induce vomiting.
Give nothing to eat or drink. In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.
In case of inhalation, consult a doctor immediately and show him packing or label.
4.2. Most important symptoms and effects, both acute and delayed None
4.3. Indication of any immediate medical attention and special treatment needed
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
None
SECTION 5: Firefighting measures
5.1. Extinguishing media Suitable extinguishing media:
Water.
Carbon dioxide (CO2).
Extinguishing media which must not be used for safety reasons:
None in particular. 5.2. Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
5.3. Advice for firefighters
Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency proce	dures
Wear personal protection equipment.	
Remove persons to safety.	
See protective measures under point 7 and 8. 6.2. Environmental precautions	
Do not allow to enter into soil/subsoil. Do not allow to enter into	surface water or drains
Retain contaminated washing water and dispose it.	Surface water of drams.
In case of gas escape or of entry into waterways, soil or drains	inform the responsible authorities
Suitable material for taking up: absorbing material, organic, sa	
6.3. Methods and material for containment and cleaning up	
Wash with plenty of water.	
6.4. Reference to other sections	
See also section 8 and 13	
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Avoid contact with skin and eyes, inhalation of vapours and mi	sts.
Don't use empty container before they have been cleaned.	
Before making transfer operations, assure that there aren't any	
Contamined clothing should be changed before entering eating	j areas.
Do not eat or drink while working.	
See also section 8 for recommended protective equipment.	
7.2. Conditions for safe storage, including any incompatibilities Keep away from food, drink and feed.	
Incompatible materials:	
None in particular.	
Instructions as regards storage premises:	
Adequately ventilated premises.	
7.3. Specific end use(s)	
For more information see Technical date bulletin	
None in particular	
SECTION 8: Exposure controls/personal protection	
8.1. Control parameters	
Contained substances	
Potassium hydroxide - CAS: 1310-58-3	
<b>o</b> 11	Binding - Notes: Short: C. Irritation of the skin, respiratory and eye
irritation.	Poboviour: Pinding
EU - LTE mg/m3: 2 - STE mg/m3: 2 - STE ppm: 0.87	- Benaviour. Binding
DNEL Exposure Limit Values	
Potassium hydroxide - CAS: 1310-58-3	
Worker Professional: 1 mg/m3 - Consumer: 1 - U.M.: n	ng/m3 - Exposure: Human Inhalation - Frequency: Long Term, local
effects	
Sodium Xylenesulphonate - CAS: 1300-72-7	
Consumer: 3.8 - U.M.: mg/kg - Exposure: Human Oral	- Frequency: Long Term, systemic effects
	J.M.: mg/m3 - Exposure: Human Inhalation - Frequency: Long Term,
systemic effects	· ma/ka Exposure: Human Dormal Erequency: Long Torm
systemic effects	.: mg/kg - Exposure: Human Dermal - Frequency: Long Term,
Systemic enects	
PNEC Exposure Limit Values	
Sodium Xylenesulphonate - CAS: 1300-72-7	
Target: Fresh Water - Value: 0.23 mg/l	
Target: Occasional issue - Value: 2.3 mg/l	
Target: Sewerage treatment plants - Value: 100 mg/l	
8.2. Exposure controls	
Eye protection:	
Use close fitting safety goggles, don't use eye lens. Protection for skin:	
Use clothing that provides comprehensive protection to	o the skin, e.g. cotton, rubber, PVC or viton
Protection for hands:	
Use protective gloves that provides comprehensive pro	otection, e.g. P.V.C., neoprene or rubber.
Respiratory protection:	
Not needed for normal use.	
Thermal Hazards:	
Environmental exposure controls:	
None	
SECTION 9: Physical and chemical properties	
9.1. Information on basic physical and chemical properties	ve lleve figuriel
Appearance and colour: Odour:	yellow liquid
Odour: Odour threshold:	Negligible n.av. mg/m3
pH:	> 13
F	

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Melting point / freezing point:	initial 0 °C
Initial boiling point and boiling range:	initial 100 °C
Solid/gas flammability:	na
Upper/lower flammability or explosive limits:	na % v/v
Vapour density (air=1):	> 1
Flash point:	none °C
Evaporation rate:	na
Vapour pressure:	3.2 kPa
Relative density:	1.13 g/ml
Solubility in water:	complete
Solubility in oil:	na
Partition coefficient (n-octanol/water):	n.av.
Auto-ignition temperature:	none °C
Decomposition temperature:	n.av. °C
Viscosity:	n.av. mPa.s
Explosive properties:	none
Oxidizing properties:	none
9.2. Other information	
Miscibility:	complete in water
Fat Solubility:	na
Conductivity:	Not Relevant
Substance Groups relevant properties:	n.av.
SECTION 10: Stability and reactivity	
10.1. Reactivity	
Stable under normal conditions	
10.2. Chemical stability	
Stable under normal conditions	
10.3. Possibility of hazardous reactions	anatad arganic substances, and elementary motels
It may generate flammable gases on contact with haloge 10.4. Conditions to avoid	enated organic substances, and elementary metals.
Stable under normal conditions.	
10.5. Incompatible materials None in particular.	
10.6. Hazardous decomposition products	
None.	
SECTION 11: Toxicological information	
11.1. Information on toxicological effects	
	in the mixture:
Toxicological information of the main substances found i Potassium hydroxide - CAS: 1310-58-3	in the mixture:
Toxicological information of the main substances found i	in the mixture:
Toxicological information of the main substances found i Potassium hydroxide - CAS: 1310-58-3	in the mixture:
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Toxicological information of the main substances found i Potassium hydroxide - CAS: 1310-58-3 a) acute toxicity: LD50 Oral Rat = 333 mg/kg Sodium Xylenesulphonate - CAS: 1300-72-7 a) acute toxicity: LD50 Oral Rat > 7200 mg/kg LD50 Skin Rabbit > 2000 mg/kg LC50 Inhalation Rat > 6.41 mg/l 4 hours Vap Alcohol (C9-11) polyglycolether - CAS: 68439-46-3 a) acute toxicity: LD50 Oral Rat = 2000 mg/kg LC50 Inhalation > 5 mg/l Alkylamine oxide - CAS: 61788-90-7 a) acute toxicity: LD50 Oral Rat = 1064 mg/kg LD50 Oral Rat = 1064 mg/kg LD50 Skin Rabbit = 1.67 24 hours Skin Irritant Skin Rabbit = 4.72 hours c) serious eye damage/irritation: Skin Irritant Skin Rabbit = 4.72 hours c) serious eye damage/irritation: Skin Sensitization Skin Guinea-pig Negative g) reproductive toxicity: Reproductive Toxicity Oral Rat = 40 mg/kg If not differently specified, the information required in Regulation a) acute toxicity; b) skin corrosion/irritation; c) serious eye damage/irritation; c) serious eye damage/irritation;	pours
Toxicological information of the main substances found i Potassium hydroxide - CAS: 1310-58-3 a) acute toxicity: LD50 Oral Rat = 333 mg/kg Sodium Xylenesulphonate - CAS: 1300-72-7 a) acute toxicity: LD50 Oral Rat > 7200 mg/kg LD50 Skin Rabbit > 2000 mg/kg LC50 Inhalation Rat > 6.41 mg/l 4 hours Vap Alcohol (C9-11) polyglycolether - CAS: 68439-46-3 a) acute toxicity: LD50 Oral Rat = 2000 mg/kg LD50 Skin Rabbit > 2000 mg/kg LD50 Oral Rat = 2000 mg/kg LD50 Skin Rabbit > 2000 mg/kg LD50 Skin Rabbit > 2000 mg/kg LD50 Skin Rat > 2000 mg/kg Sodium e oxide - CAS: 61788-90-7 a) acute toxicity: LD50 Oral Rat = 1064 mg/kg LD50 Skin Rat > 2000 mg/kg Sodium Irritant Skin Rabbit = 1.67 24 hours Skin Irritant Skin Rabbit = 1.67 24 hours Skin Irritant Skin Rabbit = 4 72 hours Skin Irritant Skin Rabbit = 4 72 hours Skin Irritant Skin Rabbit = 4 72 hours Skin Sensitization: Skin Sensitization Skin Guinea-pig Negative g) reproductive toxicity: Reproductive Toxicity Oral Rat = 40 mg/kg If not differently specified, the information required in Regulation a) acute toxicity; b) skin corrosion/irritation; c) serious eye damage/irritation; d) respiratory or skin sensitisation; d) respiratory or skin sensitisation;	pours
Toxicological information of the main substances found i Potassium hydroxide - CAS: 1310-58-3 a) acute toxicity: LD50 Oral Rat = 333 mg/kg Sodium Xylenesulphonate - CAS: 1300-72-7 a) acute toxicity: LD50 Oral Rat > 7200 mg/kg LD50 Skin Rabbit > 2000 mg/kg LC50 Inhalation Rat > 6.41 mg/l 4 hours Vap Alcohol (C9-11) polyglycolether - CAS: 68439-46-3 a) acute toxicity: LD50 Oral Rat = 2000 mg/kg LD50 Skin Rabbit > 2000 mg/kg LD50 Skin Rat > 2000 mg/kg Skin lTritant Skin Rabbit = 1.67 24 hours Skin Irritant Skin Rabbit = 1.67 24 hours Skin Irritant Skin Rabbit = 4 72 hours c) serious eye damage/irritation: Skin Sensitization Skin Guinea-pig Negative g) reproductive toxicity: Reproductive Toxicity Oral Rat = 40 mg/kg If not differently specified, the information required in Regulation a) acute toxicity; b) skin corrosion/irritation; c) serious eye damage/irritation; d) respiratory or skin sensitisation; e) germ cell mutagenicity;	pours

	i) STOT-repeated exposure; j) aspiration hazard.
ECTION '	12: Ecological information
	Toxicity
	Based on the information available it is not expected that this product may cause any adverse environmental effect when use
	instructions and disposal recommendations are followed.
	Adopt good working practices, so that the product is not released into the environment.
List of	f substances hazardous to the environment and eco-toxicological information available:
	Potassium hydroxide - CAS: 1310-58-3
	a) Aquatic acute toxicity:
	LC50 Fish = 80 mg/l 96 Gambusia affinis
	LC50 Bacteria = 80 mg/l 24 Mosquito
	Sodium Xylenesulphonate - CAS: 1300-72-7
	a) Aquatic acute toxicity:
	LC50 Fish = 400 mg/l 98 Pimephales promelas LC50 Fish = 1000 mg/l 96 Oncorhynchus mykiss
	EC50 Daphnia = 1000 mg/l 48 Daphnia magna
	EC50 Algae > 230 mg/l 96 Selenastrum capricornutum
	b) Aquatic chronic toxicity:
	NOEC = 31 mg/l 96 Selenastrum capricornutum
	Alcohol (C9-11) polyglycolether - CAS: 68439-46-3
	a) Aquatic acute toxicity:
	EC50 Fish = 5 mg/l 96
	EC50 Daphnia = 5.3 mg/l 48 Alkylamine oxide - CAS: 61788-90-7
	a) Aquatic acute toxicity:
	LC50 Fish = 3.46 mg/l 96
	EC50 Daphnia = 3.1 mg/l 48
	EC50 Algae = 0.266 mg/l 72
	b) Aquatic chronic toxicity:
	NOEC Algae = 0.067 mg/l 72
10.0	NOEC Daphnia = 0.7 mg/l 504
12.2.	Persistence and degradability
	Potassium hydroxide - CAS: 1310-58-3 Biodegradability: Non-readily biodegradable - Test: Not applicable - Duration: Not applicable - %: Not applicable - Notes: N
	applicable
	Sodium Xylenesulphonate - CAS: 1300-72-7
	Biodegradability: Readily biodegradable - Test: CO2 production - Duration: Not applicable - %: Not applicable - Notes: Not
	applicable
	Alkylamine oxide - CAS: 61788-90-7
	Biodegradability: Readily biodegradable - Test: Not applicable - Duration: Not applicable - %: Not applicable - Notes: Not
	applicable Regulation (EC) No. 648/2004 on Detergents and amendments:
	Surfactant(s) contained in this preparation comply with biodegradability criteria as defined in (EC) regulations on detergent
12.3.	Bioaccumulative potential
	Sodium Xylenesulphonate - CAS: 1300-72-7
	Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient -3.12 - Duration: Not applicable - Notes: Not
	applicable
	Bioaccumulation: Not bioaccumulative - Test: BCF - Bioconcentrantion factor Not applicable - Duration: Not applicable -
12 /	Notes: Not applicable Mobility in soil
12.4.	Not applicable
12.5.	Results of PBT and vPvB assessment
	vPvB Substances: None - PBT Substances: None
12.6.	Other adverse effects
	None
	13: Disposal considerations
13.1.	Waste treatment methods
	Product and its residue:
	Do not dispose in the canals of wastewater, waterways and soil. The codes indicating the type of waste are considered based on the recommendations and scheduled use of this product.
	Different codes may be assigned bused on the end user's use and the characteristics of the disposal.
	Waste code CER/EWC (2000/532/CE), attributable to the product as:
	07 06 01* aqueous solution of washing and mother liquors
	H8 corrosive
	Any remaining product should be disposed of with the material.
	Containers/contaminated packaging
	Containers, even completely empty, must not be disposed in the environment. The packigings which can not be cleaned should be disposed of as the material.

national regulations currently in force.	
A Tansport mormation	
14.1. UN number	
ADR-UN Number:	1760
IATA-UN Number:	1760
IMDG-UN Number:	1760
14.2. UN proper shipping name	
ADR-Shipping Name:	CORROSIVE LIQUID, N.O.S. (potassium hydroxide, Alkyl betaine)
IATA-Shipping Name: IMDG-Shipping Name:	CORROSIVE LIQUID, N.O.S. (potassium hydroxide, Alkyl betaine) CORROSIVE LIQUID, N.O.S. (potassium hydroxide, Alkyl betaine)
14.3. Transport hazard class(es)	CORROSIVE LIQUID, N.O.S. (polassium hydroxide, Aikyr belaine)
ADR-Class:	8
ADR-Label:	8
ADR - Hazard identification number:	80
IATA-Class:	8
IATA-Label:	8
IMDG-Class:	8
14.4. Packing group ADR-Packing Group:	11
IATA-Packing group:	
IMDG-Packing group:	
14.5. Environmental hazards	
ADR-Enviromental Pollutant:	No
IMDG-Marine pollutant:	No
14.6. Special precautions for user ADR-Subsidiary risks:	
ADR-Subsidiary fisks.	- 274
ADR-Tunnel Restriction Code:	(E)
IATA-Passenger Aircraft:	851
IATA-Subsidiary risks:	-
IATA-Cargo Aircraft:	855
IATA-S.P.:	A3 A803
	8L
IMDG-EmS: IMDG-Subsidiary risks:	F-A , S-B
IMDG-Storage category:	Category B
IMDG-Storage notes:	Clear of living quarters.
14.7. Transport in bulk according to Annex II o	of MARPOL73/78 and the IBC Code
nd	
ECTION 15: Regulatory information	
	tions/legislation specific for the substance or mixture
	······································
	aging and labelling of dangerous substances)
Dir. 99/45/EC (Classification, packagir	ng and labelling of dangerous preparations)
Dir. 98/24/EC (Risks related to chemic	
Dir. 2000/39/EC (Occupational exposu Dir. 2006/8/EC	ire limit values)
Regulation (EC) n. 1907/2006 (REAC	н
Regulation (EC) n. 1907/2008 (CLP)	1)
Regulation (EC) n. 790/2009 (ATP 1 C	(EII) n 758/2013
Regulation (EU) n. 453/2010 (Annex I	
Regulation (EU) n. 286/2011 (ATP 2 C	
Regulation (EU) n. 618/2012 (ATP 3 C	
	tances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and
subsequent modifications:	
None	
Where applicable, refer to the following regula	
Regulation (EC) nr 648/2004 and CE	ed to risks of serious accidents') and subsequent amendments.
Directive 2003/105/EC ('Activities linke	1107.
	,
Directive 2003/105/EC ('Activities linke Regulation (EC) n° 648/2004 (deterge	,
Directive 2003/105/EC ('Activities linke Regulation (EC) n° 648/2004 (deterge 1999/13/EC (VOC directive)	
Directive 2003/105/EC ('Activities linke Regulation (EC) n° 648/2004 (deterge	VOCs = 2.00 %
Directive 2003/105/EC ('Activities linke Regulation (EC) n° 648/2004 (deterge 1999/13/EC (VOC directive) Volatile Organic compounds -	VOCs = 2.00 % VOCs = 22.60 g/l
Directive 2003/105/EC ('Activities linke Regulation (EC) n° 648/2004 (deterge 1999/13/EC (VOC directive) Volatile Organic compounds - Volatile Organic compounds - Volatile CMR substances = 0.	VOCs = 2.00 % VOCs = 22.60 g/l

Organic Carbon - C = 0.01

15.2. Chemical safety assessment Not available

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

Full text of phrases referred to in Section 3:

R22 Harmful if swallowed.

R35 Causes severe burns.

- R36/38 Irritating to eyes and skin.
- R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R50 Very toxic to aquatic organisms.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

This document was prepared by a competent person who has received appropriate training.

This MSDS cancels and replaces any preceding release.

Where applicable, refer to the following regulatory provisions :

Council Directive 67/548/EEC (Classification, packaging and labelling of dangerous substances) and subsequent amendments; Regulation (EC) n°1272/2008; Regulation (EC) N. 790/2009 (annex VI), Regulation (EC) n. 1907/2006 (REACH). Commmission Directive 1999/45/EC (Classification, packaging and labelling of dangerous preparation) and subsequent amendments; Commmission Directive n. 2006/8/CE.

Regulation (EC) nr 648/2004 and CE N. 907/2006 (Detergents). Directive 2003/105/EC ('Activities linked to risks of serious accidents') and subsequent amendments.

Directive 2013/10/EU (aerosols) amending Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers in order to adapt its labelling provisions to Regulation (EC) n° 1272/2008 on classification, labelling and packaging of substances and mixtures and subsequent amendments

Regulation (EC) No 1223/2009 on cosmetic products and subsequent amendments.

Regulation (EU) No 126/2013 amending Annex XVII to Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and subsequent amendments. Regulation (EC) N. 304/2003 and subsequent amendments. Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products and subsequent amendments.

Directives 91/156/CEE, 91/689/CEE, 94/62/CE (Disposal of waste ) and subsequent amendments.

The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), current edition.

regulations IATA/ICAO = Dangerous Goods Regulations by air, current edition.

RID = Regulations concerning the International Carriage of Dangerous Goods by Rail, current edition.

IMDG Code = International Maritime Dangerous Goods Code produced by the International Maritime Organization (IMO), current edition.

Directive 91/271/EEC and 91/676/CEE (protection of waters) and subsequent amendments.

Main bibliographic sources:

ESIS: European chemical Substances Information System and Environmental hazard classification.

Occupational exposure limit values (Commission Directives 2000/39/EC and 2006/15/CE)

ACGIH - TLV's for 2010

NIOSH - Registry of toxic effects of chemical substances (1983)

Material Safety Data Sheets of chemicals, REACH database

Material Safety Data Sheet and Technical Data of raw material as by Supplier

The ISS National Inventory of Chemical Substances (INSC)

Abbreviations and acronyms:

TLV-TWA = Threshold Limit Value- time-weighed average, 8-hour workday, 40-hour workweek; TLV-STEL-15 min = Threshold Limit Values - Short Term Exposure Limit; TLV-C = Ceiling exposure limit; Notes: IBE= Biological Exposure Indices; SEN= sensitizer; Skin= Can be absorbed through the skin. Carcinogenicity categories: A1 / A2 = confirmed / suspected human carcinogen; A3 = Animal carcinogen; A4 / A5 = Not Classificable/not suspected as a human carcinogen. ACGIH = American Conference on Governmental Industrial Hygienists. OEL =Occupational Exposure Limit. VLPE = Occupational Exposure Limit Values. LTE =long term exposure. STE=short term exposure.

n.av.= Not Available, n.a. = not applicable; LD50=lethal dose (solids and liquids), LC50=lethal concentration (gases) that will kill 50% of the test animals; ADR= European Agreement concerning the International Carriage of Dangerous Goods by Road. Regulations IATA/ICAO = Dangerous Goods Regulations by air, current edition.

RID = Regulations concerning the International Carriage of Dangerous Goods by Rail, current edition. IMDG Code = International Maritime Dangerous Goods Code produced by the International Maritime Organization (IMO), current edition.

PBT = Persistent, Bioaccumulative and Toxic substances. ; vPvB = very Persistent and very Bioaccumulative substances; CMR = Carcinogenic, mutagenic or reproduction toxic substances.

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.