	fety Data She		07/2006 (REACH)	(EN / D)
acc	orang to Regulat		, / 2000 (NEACH)	
Tr	ade name :	Lithofin M	N Outdoor Cleaner	
Revi	sion date :	30.01.2019	Version (Revision) :	4.0.2 (4.0.1)
Print	: date :	06.02.2019		
SEC	TION 1: Identific	ation of the subs	stance/mixture and of the company/ un	dertaking
1.1	Product identifie	er		
	Lithofin MN Outdoor			_
1.2	Relevant identi	fied uses	ubstance or mixture and uses advised ag	gainst
1 2	-	d cleaning products, alk		(dictributor)
1.3	Contact :	acturer/importe	r/only representative/downstream user	alstributor)
	Supplier :		Lithofin AG	
	Street :		Heinrich-Otto-Str. 36	
	Postal code/city :		73240 Wendlingen	
	Telephone :		+49 (0)7024 9403-0	
	Telefax :		+49 (0)7024 9403-40	
	Contact :		Technical Department E-mail: info@lithofin.de	
			Emergency telephone number: +49 (0)7024 9403-0	
1.4	Emergency telep	phone number	(Only available during office hours)	
	see section 1.3			
SEC	TION 2: Hazards	identification		
2.1	Classification a Aquatic Acute 1 ; H4 Eye Dam. 1 ; H318 - Skin Corr. 1B ; H314 Met. Corr. 1 ; H290	400 - Hazardous to the a - Serious eye damage/e 4 - Skin corrosion/irritati - Corrosive to metals : (r mixture Ilation (EC) No 1272/2008 [CLP] aquatic environment : Acute 1 ; Very toxic to aquatic life. eye irritation : Category 1 ; Causes serious eye damage. ion : Category 1B ; Causes severe skin burns and eye dan Category 1 ; May be corrosive to metals.	
	Additional infor The mixture is classi		rding to regulation (EC) No 1272/2008 [CLP].	
	Remark	UH-phrases: see section	n 16	
2.2	Label elements	or privases. see sector		
		ding to Regulatio	on (EC) No. 1272/2008 [CLP]	
	Hazard pictogram			
		¥2		
		• Environment (GHS09))	
	Signal word Danger			
	Hazard componen	ts for labelling		

Hazard components for labelling SODIUM HYPOCHLORITE 5 % ; CAS No. : 7681-52-9 SODIUM HYDROXIDE ; CAS No. : 1310-73-2 Hazard statements

according to Regulati	et (EN / ion (EC) No. 1907/2006 (REACH)
Trade name :	Lithofin MN Outdoor Cleaner 30.01.2019 Version (Revision): 4.0.2 (4.0.1
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H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.
Precautionary state	ements
P102	Keep out of reach of children.
P234	Keep only in original packaging.
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 contact lenses, if prese and easy to do. Continue rinsing.
P405	Store locked up.
Due to its pH value (s Additional inform	health effects and symptoms see section 9), irritation of the skin and eyes cannot be ruled out. nation mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
The substances in the	· · · · · · · · · · · · · · · · · · ·
	tion/information on ingredients
ECTION 3: Composit	tion/information on ingredients
ECTION 3: Composit	
SECTION 3: Composit 3.2 Mixtures Hazardous ingredier	
SECTION 3: Composit 3.2 Mixtures Hazardous ingredier	nts
SECTION 3: Composit 3.2 Mixtures Hazardous ingredien SODIUM HYPOCHLORI	nts ITE ; REACH registration No. : 01-2119488154-34-xxxx ; EC No. : 231-668-3; CAS No. : 7681-52-9 ≥ 3 - < 5 %
SECTION 3: Composit 3.2 Mixtures Hazardous ingredien SODIUM HYPOCHLORI Weight fraction : Classification 1272/20	nts ITE ; REACH registration No. : 01-2119488154-34-xxxx ; EC No. : 231-668-3; CAS No. : 7681-52-9 ≥ 3 - < 5 % 008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Aquatic Acute 1 ; H40
SECTION 3: Composit 3.2 Mixtures Hazardous ingredien SODIUM HYPOCHLORI Weight fraction : Classification 1272/20	nts ITE ; REACH registration No. : 01-2119488154-34-xxxx ; EC No. : 231-668-3; CAS No. : 7681-52-9 ≥ 3 - < 5 % 008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Aquatic Acute 1 ; H40 Aquatic Chronic 2 ; H411
SECTION 3: Composit 3.2 Mixtures Hazardous ingredien SODIUM HYPOCHLORI Weight fraction : Classification 1272/20 SODIUM CARBONATE	nts ITE ; REACH registration No. : 01-2119488154-34-xxxx ; EC No. : 231-668-3; CAS No. : 7681-52-9 ≥ 3 - < 5 % 008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Aquatic Acute 1 ; H40 Aquatic Chronic 2 ; H411 ; REACH registration No. : 01-2119485498-19-xxxx ; EC No. : 207-838-8; CAS No. : 497-19-8 ≥ 1 - < 5 %
SECTION 3: Composit 3.2 Mixtures Hazardous ingredien SODIUM HYPOCHLORI Weight fraction : Classification 1272/20 SODIUM CARBONATE Weight fraction : Classification 1272/20	nts ITE ; REACH registration No. : 01-2119488154-34-xxxx ; EC No. : 231-668-3; CAS No. : 7681-52-9 ≥ 3 - < 5 % 008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Aquatic Acute 1 ; H40 Aquatic Chronic 2 ; H411 ; REACH registration No. : 01-2119485498-19-xxxx ; EC No. : 207-838-8; CAS No. : 497-19-8 ≥ 1 - < 5 %
SECTION 3: Composit 3.2 Mixtures Hazardous ingredien SODIUM HYPOCHLORI Weight fraction : Classification 1272/20 SODIUM CARBONATE Weight fraction : Classification 1272/20	nts ITE ; REACH registration No. : 01-2119488154-34-xxxx ; EC No. : 231-668-3; CAS No. : 7681-52-9 ≥ 3 - < 5 %
SECTION 3: Composit 3.2 Mixtures Hazardous ingredien SODIUM HYPOCHLORI Weight fraction : Classification 1272/20 SODIUM CARBONATE Weight fraction : Classification 1272/20 SODIUM HYDROXIDE	nts ITE ; REACH registration No. : 01-2119488154-34-xxxx ; EC No. : 231-668-3; CAS No. : 7681-52-9 \geq 3 - < 5 %
SECTION 3: Composit 3.2 Mixtures Hazardous ingredien SODIUM HYPOCHLORI Weight fraction : Classification 1272/20 SODIUM CARBONATE Weight fraction : Classification 1272/20 SODIUM HYDROXIDE Weight fraction : Classification 1272/20	nts ITE ; REACH registration No. : 01-2119488154-34-xxxx ; EC No. : 231-668-3; CAS No. : 7681-52-9 \geq 3 - < 5 %

Additional information

Classification 1272/2008 [CLP] :

All ingredients of this mixture are (pre)registered according to REACH regulation. Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps. If unconscious place in recovery position and seek medical advice.

Aquatic Chronic 2; H411

Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Aquatic Acute 1 ; H400

Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Immediately remove any contaminated

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clothing, shoes or stockings. Do not wash with: Cleaning agent, acidic Cleaning agent, alkaline Solvents/Thinner

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.

After ingestion

Call a physician immediately. Keep at rest. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting.

Self-protection of the first aider

First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor

Treat symptomatically.

Special treatment

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray ABC-powder Foam

Unsuitable extinguishing media

Full water jet Strong water jet

5.2 Special hazards arising from the substance or mixture Hazardous combustion products

Carbon monoxide Carbon dioxide (CO2) Hydrogen chloride (HCl) Chlorine (Cl2)

5.3 Advice for firefighters

Use suitable breathing apparatus.

Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4 Additional information

Use water spray jet to protect personnel and to cool endangered containers. Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment (refer to section 8). Provide adequate ventilation. Remove persons to safety.

6.2 Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For cleaning up

Suitable material for taking up: Universal binder Clean contaminated articles and floor according to the environmental legislation. Retain contaminated washing water and dispose it. Dispose of waste according to applicable legislation.

6.4 Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

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Print	t date :	06.02.2019		
SEC	CTION 7: Handling	g and storage		
7.1	Precautions for	safe handling		
	When using do not ea	at, drink, smoke, sniff.		
	Protective mea	sures		
	Skin contact Eye cor the removal of produ- ventilation is not pos measures and the ap Measures to preve	ntact Wear personal protecti uct. Do not breathe gas/fun ssible or not sufficient, the e oplication of suitable work p	that the following is excluded: Inhalation of vapours ion equipment (refer to section 8). Always close conta hes/vapour/spray. Use only in well-ventilated areas. If entire working area must be ventilated by technical m processes have priority over personal protection equip s for fire prevention.	ainers tightly after f local exhaust eans. Technical
	Fire class :	-		
	Shake well befor			
	-	eral occupational hy		
		off contaminated clothing ar		
7.2			ng any incompatibilities	
	•	or storage rooms a		
	absorbent. Ensure a	dequate ventilation of the s	n original container. The floor should be leak tight, joi torage area.	intless and not
	Hints on joint s	-		
	Storage class (TR	-		
	Protect from frost		20 °C	
		ation on storage co		
		-	ep container tightly closed in a cool, well-ventilated p	lace
7.3	Specific end use		ep container lightly closed in a cool, weir ventilated p	lace.
/.5	•	• •		
	Recommendati	on ata sheet. Observe instructio		
	Observe technical da		JIS TOF USE.	
SEC	CTION 8: Exposure	e controls/personal	protection	
8.1	Control paramet	ers		
	None			
8.2	Exposure contro	ls		
	Appropriate en	gineering controls		
		ntilation of the storage area		
			ble work processes have priority over personal protec	tion equipment.
	-	tion equipment		
	Eye/face prote			
	Suitable eye prot	tection side protection goggles		
	Required proper DIN EN 166			
	Skin protectio	n		
	Hand protection			
	-	type : Gloves with long cut	ffs	

Suitable gloves type : Gloves with long cuffs

Suitable material : NBR (Nitrile rubber), 0,4mm, >8h; Butyl caoutchouc, 0,5mm, >8h; FKM (fluoro rubber), 0,7mm, >8h;

Recommended glove articles : Manufacturer KCL GmbH/Eichenzell-Germany; Ansell/Yarra City-Australia Or comparable articles from other companies.

Additional hand protection measures : Check leak tightness/impermeability prior to use.

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Remark : Breakthrough times and swelling properties of the material must be taken into consideration. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Barrier creams are not substitutes for body protection.

Body protection

Protective clothing.

Suitable protective clothing : Chemical protection clothing Chemical resistant safety shoes

Required properties : alkali-resistant.

Protective clothing. : DIN EN ISO 20345 DIN EN 13034 DIN EN 14605

footwear : DIN EN 14404

Remark : Barrier creams are not substitutes for body protection.

Respiratory protection

Usually no personal respirative protection necessary. Respiratory protection necessary at: insufficient ventilation aerosol or mist formation. high concentrations spray application

Suitable respiratory protection apparatus

Combination filtering device (EN 14387) Half-face mask (DIN EN 140) ABEK-P1

Remark

Use only respiratory protection equipment with CE-symbol including four digit test number. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

General health and safety measures

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. When using do not eat, drink, smoke, sniff. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing immediately. Wash contaminated clothing prior to reuse. Wash hands before breaks and after work. Apply skin care products after work. Do not breathe gas/fumes/vapour/spray.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Liquid Colour : light yellow

Odour : Chlorine

Safety relevant basis data

(1013 hPa)	approx.	-11	°C	
(1013 hPa)	approx.	102	°C	
(1013 hPa)		not determined		
		not applicable		closed cup (EN ISO 3679)
		not determined		
		No		UN Test L2:Sustained combustibility test
		not determined		
		not determined		
(50 °C)	<	3000	hPa	
(20 °C)		1,11	g/cm ³	Pyknometer (DIN EN ISO 2811-1)
(20 °C)	<	3	%	Test L1: Solvent separation test (UN)
(20 °C)		miscible		
	approx.	13		DIN 19268
		not determined		(Mixture)
(23 ℃)	<	15	S	ISO cup 4 mm (DIN EN ISO 2431)
		not determined		
		not determined		
	approx.	0	Wt %	*
	(1013 hPa) (1013 hPa) (1013 hPa) (50 °C) (20 °C) (20 °C) (20 °C)	(1013 hPa) approx. (1013 hPa) approx. (1013 hPa) (1013 hPa) (50 °C) (20 °C)	(1013 hPa) approx. -11 (1013 hPa) approx. 102 (1013 hPa) not determined not applicable (1013 hPa) not determined not determined (1013 hPa) not determined not determined (1013 hPa) not determined (1013 hPa) not determined (1013 hPa) 3000 (20 °C) 31 (20 °C) 33 (20 °C) 13 (20 °C) 13 (23 °C) 15 not determined not determined not determined not determined	(1013 hPa) approx. -11 °C (1013 hPa) approx. 102 °C (1013 hPa) not determined not applicable not determined not determined not determined not determined not determined not determined (50 °C) < 3000 hPa (20 °C) < 3 % (20 °C) < 3 % (20 °C) < 3 % (20 °C) 13 not determined (23 °C) 15 s not determined not determined not determined not determined

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levision date :	30.01.2019	Version (Revision) :	4.0.2 (4.0.1)
rint date :	06.02.2019		
VOC-France		not applicable	Décret no 2011-321 d 23 mars 2011
		eans any organic compound having an initi e of 101,3 kPa; VOC-value in g/L)	ial boiling point less tha
.2 Other informatic	•		
ECTION 10: Stabilit	y and reactivity		
0.1 Reactivity			
-	elated to reactivity available for	r this product or its ingredients.	
0.2 Chemical stabilit			
		d conditions of storage, use and temperatu	ire.
0.3 Possibility of haz			
	when handled and stored acc	ording to provisions.	
0.4 Conditions to av			
Stable under recomme	ended storage and handling co	nditions.	
0.5 Incompatible ma	aterials		
The product develops	hydrogen in an aqueous solution	on in contact with metals.	
0.6 Hazardous deco	nposition products		
Does not decompose	when used for intended uses.		
ECTION 11: Toxicol	ogical information		
1.1 Information on t	ovicological offects		
Acute effects			
	vailable on the proparation/mixed	ture itself. Data apply to the main compone	ant
Acute oral toxicity			ent.
Parameter :		M CARBONATE ; CAS No. : 497-19-8)	
Exposure route :	Oral		
Species :	Rat		
Effective dose :	2800 mg/kg		
LITCUIVE UDGE .	2000 mg/ kg		
Parameter :	5. 5	DIMETHYLAMINE OXIDE ; CAS No. : 308062-2	28-4)
	5. 5	DIMETHYLAMINE OXIDE ; CAS No. : 308062-2	28-4)
Parameter : Exposure route : Species :	LD50 (COCO E	DIMETHYLAMINE OXIDE ; CAS No. : 308062-2	28-4)
Parameter : Exposure route : Species : Effective dose :	LD50 (COCO E Oral Rat > 300 - 2000 n		28-4)
Parameter : Exposure route : Species : Effective dose : Method :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401	ng/kg	28-4)
Parameter : Exposure route : Species : Effective dose : Method : Parameter :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUM		28-4)
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral	ng/kg	28-4)
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral Rat	ng/kg	28-4)
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg	ng/kg	28-4)
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg OECD 401	ng/kg	28-4)
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method : Acute dermal toxic	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg OECD 401	ng/kg M HYPOCHLORITE ; CAS No. : 7681-52-9)	
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method : Acute dermal toxio Parameter :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg OECD 401	ng/kg	
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method : Acute dermal toxic	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg OECD 401 city LD50 (COCO E	ng/kg M HYPOCHLORITE ; CAS No. : 7681-52-9)	
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg OECD 401 city LD50 (COCO E Dermal	ng/kg M HYPOCHLORITE ; CAS No. : 7681-52-9)	
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg OECD 401 city LD50 (COCO E Dermal Rat	ng/kg M HYPOCHLORITE ; CAS No. : 7681-52-9)	
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg OECD 401 City LD50 (COCO E Dermal Rat > 5000 mg/kg OECD 402	ng/kg M HYPOCHLORITE ; CAS No. : 7681-52-9)	
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method :	LD50 (COCO E Oral Rat > 300 - 2000 n OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg OECD 401 City LD50 (COCO E Dermal Rat > 5000 mg/kg OECD 402	ng/kg M HYPOCHLORITE ; CAS No. : 7681-52-9) DIMETHYLAMINE OXIDE ; CAS No. : 308062-2	
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method : Parameter : Parameter : Exposure route : Species : Effective dose : Method : Parameter :	LD50 (COCO E Oral Rat > 300 - 2000 m OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg OECD 401 City LD50 (COCO E Dermal Rat > 5000 mg/kg OECD 402 LD50 (SODIUN	ng/kg M HYPOCHLORITE ; CAS No. : 7681-52-9) DIMETHYLAMINE OXIDE ; CAS No. : 308062-2	
Parameter : Exposure route : Species : Effective dose : Method : Parameter : Exposure route : Species : Effective dose : Method :	LD50 (COCO E Oral Rat > 300 - 2000 m OECD 401 LD50 (SODIUN Oral Rat > 1100 mg/kg OECD 401 City LD50 (COCO E Dermal Rat > 5000 mg/kg OECD 402 LD50 (SODIUN Dermal	ng/kg M HYPOCHLORITE ; CAS No. : 7681-52-9) DIMETHYLAMINE OXIDE ; CAS No. : 308062-2	

> 20000 OECD 402

Method :

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		0. 1907/2000 (REACH)	
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Parameter :		LD50 (SODIUM CARBONATE ; CAS No. : 497-19-8)	
Exposure route :		Dermal	
Species :		Rabbit	
Effective dose :		> 2000 mg/kg	
Acute inhalation t	oxicity		
Parameter :	•	LC50 (SODIUM CARBONATE ; CAS No. : 497-19-8)	
Exposure route :		Inhalation	
Species :		Rat	
Effective dose :		2,3 mg/l	
Method :		OECD 403	
Parameter :		LC50 (SODIUM HYPOCHLORITE ; CAS No. : 7681-52-9)	
Exposure route :		Inhalation	
Species :		Rat	
Effective dose :		> 10,5 mg/l	
Exposure time :		1 h	
Method :		OECD 403	
Specific sympto	oms in aniı	nal studies	
		preparation/mixture itself.	
Assessment/class Causes serious eye Sensitisation		ses severe burns.	
	vailable on the	preparation/mixture itself.	
		ubacute, subchronic, chronic)	
-			
		preparation/mixture itself.	、
-	arcinogeni	city, mutagenicity and toxicity for reproductio	n)
Carcinogenicity			
There are no data a Other informatio		e preparation/mixture itself.	
No indication of h	uman carcinog	enicity.	
Germ cell mutage	nicity		
		e preparation/mixture itself. I mutagenicity exist.	
Reproductive toxi	city		
There are no data a	available on th	e preparation/mixture itself.	
Other informatio			
No indications of I	human reprodu	ictive toxicity exist.	
Overall Assessme	•		
	-	not meet the criteria for classification as CMR category 1A or 1B	according to CLP.
STOT-single ex			j
See SECTION 2.1 (cl			
STOT-repeated	-		
See SECTION 2.1 (c	lassification).		
Aspiration haza	rd		
See SECTION 2.1 (cl			
ECTION 12: Ecologi	cal inform	ation	
2.1 Toxicity		There are no data available on the preparation/mixture itself.	

Chronic (long-term) fish toxicity
Parameter : NOEC (SODIUM HYPOCHLORITE ; CAS No. : 7681-52-9)

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	00.02.2013
Species :	Fish
Effective dose :	0,04 mg/l
Exposure time :	96 h
Acute (short-term	1) algae toxicity
Parameter :	EC50 (COCO DIMETHYLAMINE OXIDE ; CAS No. : 308062-28-4)
Species :	Fish
Effective dose :	> 1 - 10 mg/l
Exposure time :	96 h
Parameter :	EC50 (COCO DIMETHYLAMINE OXIDE ; CAS No. : 308062-28-4)
Species :	Daphnia
Effective dose :	> 1 - 10 mg/l
Exposure time :	48 h
Method :	OECD 202
Parameter :	EC50 (SODIUM HYPOCHLORITE ; CAS No. : 7681-52-9)
Species :	Daphnia
Effective dose :	0,141 mg/l
Exposure time :	48 h
Parameter :	EC50 (SODIUM CARBONATE ; CAS No. : 497-19-8)
Species :	Daphnia
Effective dose :	200 - 227 mg/l
Exposure time :	48 h
Chronic (long-ter	
Parameter :	NOEC (SODIUM HYPOCHLORITE ; CAS No. : 7681-52-9)
Species :	Algae
Effective dose :	0,0021 mg/l
Exposure time :	7 d
Bacteria toxicity	. •
Parameter :	EC50 (SODIUM HYDROXIDE ; CAS No. : 1310-73-2)
Species :	Bacteria toxicity
Effective dose :	22 mg/l
Exposure time :	15 min
Parameter :	EC50 (SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE ; CAS No. : 7681-52-9)
Species :	Bacteria toxicity
Effective dose :	> 3 mg/l
Exposure time :	3 h
Parameter :	EC50 (COCO DIMETHYLAMINE OXIDE ; CAS No. : 308062-28-4)
Species :	Bacteria toxicity
Effective dose :	190 mg/l
Exposure time :	16 h
Method :	DIN 38412 / part 8
Effects in sewa	

Observe local regulations concerning effluent treatment. Before discharge into sewage plants the product normally needs to be neutralised.

12.2 Persistence and degradability

There are no data available on the preparation/mixture itself.

Biodegradation

The surfactant contained in this mixture complies 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.

12.3 Bioaccumulative potential

There are no data available on the preparation/mixture itself.

12.4 Mobility in soil

There are no data available on the preparation/mixture itself.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

Safety Data She according to Regulat		907/2006 (REACH)	(EN / D)
Trade name : Revision date : Print date :	Lithofin I 30.01.2019 06.02.2019	MN Outdoor Cleaner Version (Revision) :	4.0.2 (4.0.1)
 12.6 Other adverse eff There are no data avain 12.7 Additional ecoto Additional information The product has not 	ailable on the prepara xicological infe- tion		
SECTION 13: Disposa	al consideratio	ns	
Product/Packag Waste codes/was Waste code prod Waste code (EWC Waste code packa Waste code packa Waste code packa Waste treatment of 29/35 - Do not emp waste disposal com Appropriate dispo Contaminated pac cannot be properl 13.2 Additional inform	legislation. ling to directive 2008 ging disposal te designations ac uct /AVV) : 16 03 03* aging liging: 15 01 10* options oty into drains; dispo upany. osal / Package skages must be comp y cleaned must be d mation uned based upon the	8/98/EC, covering waste and dangerous waste. coording to EWC/AVV ose of this material and its container in a safe way. Delivery pletely emptied and can be re-used following proper cleanir isposed of.	ng. Packing which
SECTION 14: Transpo	ort informatior	1	
Sea transport (IMD CAUSTIC ALKALI LIQU Air transport (ICAO	R/RID) JID, N.O.S. (SODIU JG) JID, N.O.S. (SODIU I-TI / IATA-DGR)	Im Hypochlorite · Sodium Hydroxide) Im Hypochlorite · Sodium Hydroxide) Im Hypochlorite · Sodium Hydroxide)	
14.3 Transport hazar	d class(es)	(MITPOCHLORITE SODIOM ITDROADE)	
Land transport (AD Class(es) : Classification code Hazard identification No.) : Tunnel restriction of Special provisions Hazard label(s) : Sea transport (IMD Class(es) :	: on number (Kemler code : :	80 E LQ 1 · E 2 8 / N 8	
EmS-No. : Special provisions : Hazard label(s) : Air transport (ICAC Class(es) :		F-A / <u>S-B</u> LQ 1 I · E 2 · IMDG-Code segregation group 8 - Hypochlorites 8 / N 8	5
		Page: 9 / 12	(EN / D)

Safety Data Sh according to Regula		a 1007/2006 (P	EACH)	(EN / D
Frade name :	Lithof	in MN Outdo	oor Cleaner	
evision date : rint date :	30.01.2019 06.02.2019		Version (Revision) :	4.0.2 (4.0.1)
Special provision	s :	E 2		
Hazard label(s) :		8		
4.4 Packing group				
4.5 Environmental	hazards			
Land transport (A		S		
Sea transport (IM Air transport (ICA	• • • •	GR) · Yes		
4.6 Special precau	-	-		
None				
•	Ik according	g to Annex II of I	Marpol and the IBC Code	
not required.				
ECTION 15: Regul	atory inform	nation		
	-			
3.1	and environ	mental regulatio	ns/legislation specific for the	e substance o
EU legislation				
-	No 1907/2006 c	concerning the Registrat	ion, Evaluation, Authorisation and Restric	tion of Chemicals
(REACH)				
			g and packaging of substances and mixtu ne Council on waste (2000/532/EC)	ıres (clp)
EN 2:1992 (DIN E			le council on waste (2000/332/EC)	
Authorisations a	nd/or restriction	ons on use		
Restrictions on				
Use restriction a Restrictions of		CH annex XVII, no. : No	one, if handled according to order.	
Observe restrict Observe employ	ions to employme		ng to the 'juvenile work protection guideli rotection Directive (92/85/EEC) for expec	
mothers. Other regulation	is (EU)			
Regulation (EC) N	lo. 648/2004 (De	etergents regulation)		
chemical agents a	at work. (Directiv J) No 649/2012 C	ve 2000/39/EC, Directive OF THE EUROPEAN PAR	e health and safety of workers from the 2006/15/EC, Directive 2009/161/EC) LIAMENT AND OF THE COUNCIL concerr	
			of explosives precursors: Not applicable	
) No. 1005/200	09 on substances tha	t lead to the depletion of the ozone	layer
Not applicable.	lowing substance	es that deplete the ozon	e laver: -	
	5	[POP-Regulation]	e layer.	
Not applicable.				
	rsistent organic p	ollutant (POP): -		
National regulation Observe in addition		aulations!		
Germany:	,	•		
TRGS 400 (Risk as TRGS 500 (Protect		ivities involving hazardo	ous substances)	
TRGS 510 (Storage	e of hazardous su	ubstances in non-station		
Water hazard cla		l information for workers	s)	
	• •	water) Classification	according to AwSV	
-	s, restrictions a	and prohibition regul	lations	
Switzerland VOCV-Regulat	ion			
-		rland): < 3 Wt %	according to VOCV	
	-			
		Page : 10	/ 12	
			, -	(EN / D

(EN/D)

Safety Data She		(EN / I
according to Regula	tion (EC) No. 1907/2006 (REACH)	
Frade name :	Lithofin MN Outdoor Cleaner	
levision date :	30.01.2019 Version (Revision) :	4.0.2 (4.0.1
Print date :	06.02.2019	
15.2 Chemical safety For this substance/m	assessment xture a chemical safety assessment has not been carried out.	
SECTION 16: Other i	nformation	
6.1 Indication of ch	anges	
07. Hints on joint sto	rage - Storage class	
6.2 Abbreviations a	nd acronyms	
ABC-Pulver	Extinguishing powder for fire class A, B and C	
ABEK-P1	combination filter	
ADR	European Agreement concerning the International Carriage of Dang	erous Goods by Road
AVV	Abfallverzeichnis-Verordnung (Waste Regulation)	
AWSV	Ordinance on facilities for the handling of substances hazardous to v	water
BGR	BG rules and regulations	
ca.	circa	
CAS	Chemical Abstract Service	
CLP	classification, labelling and packaging	
CMR	Carcinogen, mutagen or toxic for reproduction	
DIN	German Institute for Standardization	
DNEL	Derived No-Effect Level	
EAK/EWC/EAC/CWR,	CER European Waste Catalogue	
EC50 / CE50	Effective Concentration 50%	
EG / EC / CE	European Community	
EN	European Standard	
EUH	supplemental hazard statement of the european union	
GefStoffV	Gefahrstoffverordnung (Hazardous Substances Ordinance)	
GHS / SGH	Globally Harmonised System	
H-Sätze	hazard statements	
IATA-DGR	International Air Transport Association-Dangerous Goods Regulation	S
IBC-Code	International Code for the Construction and Equipment of Ships carr Chemicals in Bulk	ying Dangerous
ICAO-TI	International Civil Aviation Organization-Technical Instructions	
IMDG-Code	International Maritime Dangerous Goods Code	
ISO	International Organization for Standardization	
LC50 / CL50	Lethal Concentration 50%	
LD50 / DL50	Lethal Dose 50%	
log P O/W	Partition coefficient n-octanol/water	
MARPOL	International Convention for the Prevention of Pollution from Ships (marine pollution)
NOAEL (DSET)	No observed adverse effect level	
NOEC (CSEO)	No observed effect concentration	
Nr.	Number	
OECD	Organisation for Economic Co-operation and Development	
PBT	persistent, bioaccumulative and toxic	
pН	Potentia hydrogenii	
PIC	prior informed consent	
PNEC	Predicted No-Effect Concentration	
POP	Persistent organic pollutants	
P-Sätze	precautionary statements	

	ety Data She ording to Regulat	ion (EC) No. 1907/2006 (REACH)	
		Lithofin MN Outdoor Cleaner 30.01.2019 Version (Revision) :	4.0.2 (4.0.1)
Print c		06.02.2019	1.0.2 (1.0.1
	REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals	
	RID	International Carriage of Dangerous Goods by Rail	
	STEL / LECT	short-term exposure limit	
	TRGS	Technische Regeln für Gefahrstoffe (Technical Rules for Hazardous Substar	nces)
	TWA / MPT	time-weighted average	ices)
	UN/ONU	United Nations	
	VOC/COV/VOS/LZO	Volatile Organic Compound	0)
	VOCV	Ordinance on the Incentive Tax on Volatile Organic Compounds (SR 814.01	18)
	vPvB	very persistent and very bioaccumulative	
	WGK	Wassergefährdungsklasse (Water hazard class)	
	REACH Art. 59: -Candi	stances (https://echa.europa.eu/information-on-chemicals/registered-substance idate List of substances of very high concern for Authorisation	25)
.0.4	Classification for No 1272/2008 [Hazard statements for Hazard statements for Hazard statements for Relevant H- and	 physical hazards : On basis of test data. health hazards : Calculation method. environmental hazards : Calculation method. EUH-phrases (Number and full text) 	ulation (EC)
.0.4	Classification for No 1272/2008 [C Hazard statements for Hazard statements for Hazard statements for	mixtures and used evaluation method according to reg CLP] physical hazards : On basis of test data. health hazards : Calculation method. environmental hazards : Calculation method.	ulation (EC)
.0.4	Classification for No 1272/2008 [4 Hazard statements for Hazard statements for Hazard statements for Relevant H- and H290 H302 H314	 mixtures and used evaluation method according to reg physical hazards : On basis of test data. health hazards : Calculation method. environmental hazards : Calculation method. EUH-phrases (Number and full text) May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. 	ulation (EC)
.0.4	Classification for No 1272/2008 [4 Hazard statements for Hazard statements for Hazard statements for Relevant H- and H290 H302 H314 H315	 mixtures and used evaluation method according to reg CLP] physical hazards : On basis of test data. health hazards : Calculation method. environmental hazards : Calculation method. EUH-phrases (Number and full text) May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes skin irritation. 	ulation (EC)
.0.4	Classification for No 1272/2008 [4 Hazard statements for Hazard statements for Hazard statements for Relevant H- and H290 H302 H314 H315 H318	 mixtures and used evaluation method according to reg CLP] physical hazards : On basis of test data. health hazards : Calculation method. environmental hazards : Calculation method. EUH-phrases (Number and full text) May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. 	ulation (EC)
.0.4	Classification for No 1272/2008 [4 Hazard statements for Hazard statements for Hazard statements for Relevant H- and H290 H302 H314 H315 H318 H319	 mixtures and used evaluation method according to reg CLP] physical hazards : On basis of test data. health hazards : Calculation method. environmental hazards : Calculation method. EUH-phrases (Number and full text) May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Causes serious eye damage. Causes serious eye irritation. 	ulation (EC)
.0.4	Classification for No 1272/2008 [4 Hazard statements for Hazard statements for Hazard statements for Relevant H- and H290 H302 H314 H315 H318 H319 H400	 mixtures and used evaluation method according to reg physical hazards : On basis of test data. health hazards : Calculation method. environmental hazards : Calculation method. EUH-phrases (Number and full text) May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Causes serious eye damage. Causes serious eye irritation. Very toxic to aquatic life. 	ulation (EC)
.6.5	Classification for No 1272/2008 [4 Hazard statements for Hazard statements for Hazard statements for Relevant H- and H290 H302 H314 H315 H318 H319	 mixtures and used evaluation method according to reg CLP] physical hazards : On basis of test data. health hazards : Calculation method. environmental hazards : Calculation method. EUH-phrases (Number and full text) May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Causes serious eye damage. Causes serious eye irritation. 	ulation (EC)
.6.5	Classification for No 1272/2008 [C Hazard statements for Hazard statements for Hazard statements for Relevant H- and H290 H302 H314 H315 H318 H319 H400 H411 Training advice	 mixtures and used evaluation method according to reg CLP] physical hazards : On basis of test data. health hazards : Calculation method. environmental hazards : Calculation method. EUH-phrases (Number and full text) May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Causes serious eye irritation. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. 	ulation (EC)