according to Regulation (EC) No. 1907/2006 (REACH)

Trade name: Lithofin MN Outdoor Cleaner

Revision date: 03.03.2021 **Version (Revision):** 5.1.0 (5.0.0)

Print date : 13.04.2021

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

1.1 Product identifier

Lithofin MN Outdoor Cleaner

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

Mixture Washing and cleaning products, alkaline

1.3 Supplier

Distributor: Casdron Enterprises Ltd.
Street: Wood End, Prospect Road

Postal code/city: GB- New Alresford, Hants SO 24 9QF

 Telephone :
 +44 1962 732126

 Telefax :
 +44 1962 735373

 Contact :
 Technical Department E-mail: sales@lithofin.co.uk

Emergency telephone number:

0196 2732126

(Only available during office hours)

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

(Only available during office hours)

1.4 Emergency telephone number

see section 1.3

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Met. Corr. 1; H290 - Corrosive to metals: Category 1; May be corrosive to metals.

Skin Corr. 1A ; H314 - Skin corrosion/irritation : Category 1A ; Causes severe skin burns and eye damage.

Eye Dam. 1; H318 - Serious eye damage/eye irritation: Category 1; Causes serious eye damage.

Aquatic Acute 1; H400 - Hazardous to the aquatic environment: Acute 1; Very toxic to aquatic life.

Aquatic Chronic 2; H411 - Hazardous to the aquatic environment: Chronic 2; Toxic to aquatic life with long lasting effects.

Additional information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Remark

Full text of H- and EUH-statements: see section 16.

2.2 Label elements

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

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Corrosion (GHS05) · Environment (GHS09)

Signal word

Danger

Hazard components for labelling

SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE; CAS No.: 7681-52-9

SODIUM HYDROXIDE; CAS No.: 1310-73-2

Hazard statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

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 present

and easy to do. Continue rinsing.

P405 Store locked up.

2.3 Other hazards

None

2.4 Additional information

see section 12.5

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE; EC No.: 231-668-3; CAS No.: 7681-52-9

Weight fraction : $\geq 3 - < 5 \%$

Classification 1272/2008 [CLP]: Met. Corr. 1; H290 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400

Aquatic Chronic 1; H410 EUH031

Specific Conc. Limits : EUH031: $C \ge 5 \% \bullet (M Chronic=1) \bullet (M Acute=10)$

SODIUM HYDROXIDE; REACH No.: 01-2119457892-27-xxxx; EC No.: 215-185-5; CAS No.: 1310-73-2

Weight fraction : \geq 1 - < 2 %

Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1A ; H314 Eye Dam. 1 ; H318

Specific Conc. Limits : Skin Corr. 1A; H314: $C \ge 5\%$ • Eye Dam. 1; H318: $C \ge 2\%$ • Skin Corr. 1B; H314: $C \ge 5\%$ • Eye Dam. 1; H318: $C \ge 2\%$ • Skin Corr. 1B; H314:

 $C \ge 2$ % • Skin Corr. 1C; H314: $C \ge 2$ % • Eye Irrit. 2; H319: $C \ge 0.5$ % • Skin Irrit.

2 ; H315: C ≥ 0,5 %

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH

None (below the concentration limit)

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH

None (below the concentration limit)

Additional information

All ingredients of this mixture are (pre)registered according to REACH regulation.

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

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according to Regulation (EC) No. 1907/2006 (REACH)

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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.

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 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 jet 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.

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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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

When using do not eat, drink, smoke, sniff.

Protective measures

All work processes must always be designed so that the following is excluded: Inhalation of vapours or spray/mists Skin contact Eye contact Wear personal protection equipment (refer to section 8). Always close containers tightly after the removal of product. Do not breathe gas/fumes/vapour/spray. Use only in well-ventilated areas. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Technical measures and the application of suitable work processes have priority over personal protection equipment.

Measures to prevent fire

The product is not: Flammable Usual measures for fire prevention.

Fire class:

Advices on general occupational hygiene

P362+P364 - Take off contaminated clothing and wash it before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep/Store only in original container. The floor should be leak tight, jointless and not absorbent. Ensure adequate ventilation of the storage area.

Hints on joint storage

Storage class (TRGS 510): 8B

Recommended storage temperature 5 - 25 °C

Further information on storage conditions

Keep locked up and out of reach of children. Keep container tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)

Recommendation

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL-/PNEC-values

DNEL/DMEL

SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE; CAS No.: 7681-52-9

Limit value type : DNEL Consumer (local)

Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 1,55 mg/m³

Limit value type : DNEL Consumer (systemic)

Exposure route: Oral
Exposure frequency: Long-term
Limit value: 0,26 mg/kg
Limit value type: DNEL worker (local)

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Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Lithofin MN Outdoor Cleaner Trade name:

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> Exposure route: Inhalation Exposure frequency: Short-term Limit value: $3,1 \text{ mg/m}^3$ Limit value type:

DNEL worker (local)

Exposure route: Inhalation Long-term Exposure frequency: 1,55 mg/m³ Limit value: DNEL worker (local) Limit value type:

Exposure route: Dermal Exposure frequency: Long-term Limit value: 0,5 % SODIUM HYDROXIDE; CAS No.: 1310-73-2

Limit value type: **DNEL Consumer (local)**

Exposure route: Inhalation Short-term Exposure frequency: $2 - 2.5 \text{ mg/m}^3$ Limit value:

Limit value type: **DNEL Consumer (local)**

Exposure route: Inhalation Long-term Exposure frequency: Limit value: 1 mg/m^3

Limit value type : **DNEL Consumer (systemic)**

Exposure route: Dermal Long-term Exposure frequency: Limit value: 11717 ma/ka

Limit value type: **DNEL Consumer (systemic)**

Exposure route: Inhalation Exposure frequency: Short-term Limit value: 1 mg/kg

DNEL Consumer (systemic) Limit value type:

Exposure route: Inhalation Exposure frequency: Long-term 5,7 mg/m³ Limit value: DNEL worker (local) Limit value type:

Exposure route: Inhalation Exposure frequency: Short-term Limit value: 1 mg/m^3

Limit value type: DNEL worker (local)

Exposure route: Inhalation Exposure frequency: Long-term 1 mg/m^3 Limit value:

Limit value type: DNEL worker (systemic)

Exposure route: Oral Exposure frequency: Long-term 2,3 mg/kg/d Limit value:

DNEL worker (systemic) Limit value type:

Exposure route: Dermal Exposure frequency: Long-term Limit value: 11718 mg/kg

Limit value type: DNEL worker (systemic)

Exposure route: Inhalation Exposure frequency: Short-term Limit value: 1 mg/m^3

Limit value type: DNEL worker (systemic)

Exposure route: Inhalation Exposure frequency: Long-term 2,1 mg/m3 Limit value:

PNFC

SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE; CAS No.: 7681-52-9

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Limit value type : PNEC (Aquatic, freshwater)

Limit value : $0,21 \mu g/l$

Limit value type : PNEC (Aquatic, marine water)

Limit value : $0,042 \mu g/I$

Limit value type : PNEC (Sewage treatment plant)

Limit value : 0,03 mg/l

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation of the storage area.

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Personal protection equipment

Eye/face protection

Suitable eye protection

Eye glasses with side protection goggles

Required properties

DIN EN 166

Skin protection

Hand protection

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.

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 13034 DIN EN 14605 Chemical resistant safety shoes : DIN EN ISO 20345

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 information

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing immediately. Wash contaminated clothing prior to re-use. 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

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Colour: light yellow
Odour: Chlorine
Safety characteristics

Freezing point : (1013 hPa) < -10 °C Initial boiling point and boiling range : (1013 hPa) approx. 99 °C

Decomposition temperature : (1013 hPa) not determined

Flash point : not applicable closed cup (EN ISO 3679)

Auto-ignition temperature : not determined

Sustaining combustion No $\frac{\text{UN Test L2:Sustained}}{\text{combustibility test}}$

Lower explosion limit: not determined
Upper explosion limit: not determined

 Vapour pressure :
 (50 °C)
 3000 hPa

 Pensity :
 (20 °C)
 1.1 g/cm³ Pyknometer (DIN EN

Density: $(20 \, ^{\circ}\text{C})$ 1,1 g/cm^3 Pyriometer (DIN EN ISO 2811-1)Solvent separation test: $(20 \, ^{\circ}\text{C})$ <3%Test L1: Solvent separation test (UN)Water solubility $(20 \, ^{\circ}\text{C})$ miscible

 pH:
 approx.
 13
 DIN 19268

 log P O/W:
 not determined
 (Mixture)

 Flow time:
 (23 °C)
 approx.
 12
 s
 ISO cup 4 mm (DIN EN ISO 2431)

Odour threshold: not determined Vapourisation rate: not determined

VOC content-EC 0 Wt % *

VOC-France not applicable Décret no 2011-321 du 23 mars 2011

(* VOC-EC = "Volatile organic compound (VOC)" means any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101,3 kPa; VOC-value in q/L)

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Stable under recommended storage and handling conditions.

10.5 Incompatible materials

The product develops hydrogen in an aqueous solution in contact with metals.

10.6 Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

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

Based on available data, the classification criteria are not met.

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Safety Data Sheet

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Acute oral toxicity

Parameter: LD50 (SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE ; CAS No. : 7681-52-9)

Exposure route : Oral Species : Rat

Effective dose : > 1100 mg/kg Method : OECD 401

Parameter: LD50 (SODIUM HYDROXIDE ; CAS No. : 1310-73-2)

Exposure route: Oral
Species: Rat
Effective dose: 500 mg/kg

Acute dermal toxicity

Parameter: LD50 (SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE ; CAS No. : 7681-52-9)

Exposure route: Dermal
Species: Rabbit
Effective dose: > 20000
Method: OECD 402

Parameter: LD50 (SODIUM HYDROXIDE ; CAS No. : 1310-73-2)

Exposure route : Dermal
Species : Rabbit
Effective dose : 1350 mg/kg

Acute inhalation toxicity

Parameter: LC50 (SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE ; CAS No. : 7681-52-9)

Exposure route: Inhalation
Species: Rat
Effective dose: > 10,5 mg/l
Exposure time: 1 h
Method: OECD 403

Specific effects (Longterm animal experiment)

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

Corrosion

Causes severe skin burns and eye damage.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

Repeated dose toxicity (subacute, subchronic, chronic)

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

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

No information available.

SECTION 12: Ecological information

12.1 Toxicity

according to Regulation (EC) No. 1907/2006 (REACH)

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Aquatic toxicity

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chronic (long-term) fish toxicity

Parameter: NOEC (SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE ; CAS No. : 7681-52-9)

Species: Fish
Effective dose: 0,04 mg/l
Exposure time: 96 h

Acute (short-term) toxicity to aquatic algae and cyanobacteria

Parameter: EC50 (SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE ; CAS No. : 7681-52-9)

Species: Daphnia
Effective dose: 0,141 mg/l
Exposure time: 48 h

Parameter: EC50 (SODIUM HYDROXIDE ; CAS No. : 1310-73-2)

 $\begin{array}{lll} \mbox{Species:} & \mbox{Daphnia} \\ \mbox{Effective dose:} & > 100 \mbox{ mg/l} \\ \mbox{Exposure time:} & 48 \mbox{ h} \\ \end{array}$

Chronic (long-term) algae toxicity

Parameter: NOEC (SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE ; CAS No. : 7681-52-9)

Species: Algae
Effective dose: 0,0021 mg/l
Exposure time: 7 D

Toxicity to microorganisms

Parameter: EC50 (SODIUM HYPOCHLORITE, SOLUTION CL ACTIVE ; CAS No. : 7681-52-9)

Species: Toxicity to microorganisms

Effective dose : > 3 mg/lExposure time : 3 h

Sewage treatment plant

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

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.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

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

12.8 Additional ecotoxicological information

Additional information

The product has not been tested.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of waste according to applicable legislation.

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Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste codes/waste designations according to EWC/AVV

Waste code (EWC/AVV): 16 03 03* (inorganic wastes containing hazardous substances)

After intended use

Do not allow to enter into surface water or drains. Non-contaminated packages may be recycled. Packing which cannot be properly cleaned must be disposed of. Delivery to an approved waste disposal company.

Disposal operations

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of.

Waste codes/waste designations according to EWC/AVV

Waste code packaging: 15 01 10*

13.2 Additional information

These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use.

SECTION 14: Transport information

14.1 UN number

UN 1719

14.2 UN proper shipping name

Land transport (ADR/RID)

CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYPOCHLORITE · SODIUM HYDROXIDE)

Sea transport (IMDG)

CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYPOCHLORITE · SODIUM HYDROXIDE)

Air transport (ICAO-TI / IATA-DGR)

CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYPOCHLORITE · SODIUM HYDROXIDE)

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es): 8
Classification code: C5
Hazard identification number (Kemler No.): 80
Tunnel restriction code: E
Special provisions: LQ 1 | E 2
Hazard label(s): 8 / N

Sea transport (IMDG)

Class(es): 8 **EmS-No.:** F-A / S-B

Special provisions : LQ 1 | · E 2 · IMDG-Code segregation group 18 - Alkalis

Hazard label(s): 8 / N

Air transport (ICAO-TI / IATA-DGR)

Class(es): 8
Special provisions: E 2
Hazard label(s): 8

14.4 Packing group

Π

14.5 Environmental hazards

Land transport (ADR/RID): Yes
Sea transport (IMDG): Yes (P)
Air transport (ICAO-TI / IATA-DGR): Yes

14.6 Special precautions for user

None

according to Regulation (EC) No. 1907/2006 (REACH)

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14.7 Maritime transport in bulk according to IMO instruments

Not required.

SECTION 15: Regulatory information

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

EU legislation

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures (clp)

DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on waste (2000/532/EC) EN 2:1992 (DIN EN 2:2005-01)

Authorisations and/or restrictions on use

Restrictions on use

Use restriction according to REACH annex XVII, no.: 3

Restrictions of occupation

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Other regulations (EU)

Regulation (EC) No. 648/2004 (Detergents regulation)

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work. (Directive 2000/39/EC, Directive 2006/15/EC, Directive 2009/161/EC)

REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the export and import of hazardous chemicals [PIC-Regulation]: Not listed.

REGULATION (EU) No 98/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the marketing and use of explosives precursors: Not listed.

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer

Not listed

Contains the following substances that deplete the ozone layer: -

Regulation (EC) No 850/2004 [POP-Regulation]

Not listed.

Name of the persistent organic pollutant (POP): -

National regulations

Observe in addition any national regulations!

Germany:

TRGS 400 (Risk assessment for activities involving hazardous substances)

TRGS 500 (Protective measures)

TRGS 510 (Storage of hazardous substances in non-stationary containers)

TRGS 555 (Working instruction and information for workers)

Water hazard class (WGK)

Classification according to AwSV - Class: 2 (Obviously hazardous to water)

Other regulations, restrictions and prohibition regulations

Switzerland

VOCV-Regulation

Maximum VOC content (Switzerland): < 3 Wt % according to VOCV

Austria

Regulation on Flammable Liquids - VbF

VbF-Class: NU

15.2 Chemical safety assessment

For this substance/mixture a chemical safety assessment has not been carried out.

15.3 Additional information

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according to Regulation (EC) No. 1907/2006 (REACH)

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SECTION 16: Other information

16.1 Indication of changes

02. Label elements · 07. Hints on joint storage - Storage class

16.2 Abbreviations and acronyms

ABC-Pulver Extinguishing powder for fire class A, B and C

ABEK-P1 combination filter

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

AVV Abfallverzeichnis-Verordnung (Waste Regulation)

AWSV Ordinance on facilities for the handling of substances hazardous to water

BGR BG rules and regulations

ca. circa

CAS Chemical Abstracts 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 Regulations

International Code for the Construction and Equipment of Ships carrying Dangerous

Chemicals in Bulk

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

pH Potentia hydrogenii PIC prior informed consent

PNEC Predicted No-Effect Concentration
POP Persistent organic pollutants
P-Sätze precautionary statements

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID International Carriage of Dangerous Goods by Rail

STEL / LECT short-term exposure limit

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according to Regulation (EC) No. 1907/2006 (REACH)

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TRGS Technische Regeln für Gefahrstoffe (Technical Rules for Hazardous Substances)

TWA / MPT time-weighted average

UN/ONU United Nations

VOC/COV/VOS/LZO Volatile Organic Compound

VOCV Ordinance on the Incentive Tax on Volatile Organic Compounds (SR 814.018)

vPvB very persistent and very bioaccumulative
WGK Wassergefährdungsklasse (Water hazard class)

For abbreviations and acronyms, see table at http://abbrev.esdscom.eu. For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

16.3 Key literature references and sources for data

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ECHA: Registered substances (https://echa.europa.eu/information-on-chemicals/registered-substances) REACH Article 59: Candidate List of substances of very high concern for Authorisation (https://echa.europa.eu/candidate-list-table)

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard statements for physical hazards: On basis of test data. Hazard statements for health hazards: Calculation method. Hazard statements for environmental hazards: Calculation method.

16.5 Relevant H- and EUH-phrases (Number and full text)

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage. H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

EUH031 Contact with acids liberates toxic gas.

16.6 Training advice

None

16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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