

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

- **Version number:** 4.1/D-EN
- **Creation date:** 27.02.2018
- **1.1 Product identifier**
- **Trade name:** Mould Exterminator
Schimmel Vernichter
- **Assortment:** MELLERUD CLASSIC
- **Article number:** 2056042004
- **EAN-Code:** 4004666042004
- **Type of packaging:**
0,5 l oblong HD-PE-bottle with childresistant sprayer (certified according to EN 862 / ISO 8317)
- **Registration number** This Product is a mixture. REACH Registration Number see chapter 3.
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Mould Remover Spray. Intended for general public.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
MELLERUD CHEMIE GmbH
Bernhard-Röttgen-Waldweg 20
41379 Brüggen
Germany

Phone: +49 (0)2163 / 950 90 - 0
Fax: +49 (0)2163 / 950 90 - 227
E-mail: service@mellerud.de
www.mellerud.de
- **Informing department:**
Department Regulatory Affairs
e-mail: labor@mellerud.de
- **1.4 Emergency telephone number:**
- **Advisory office in case of poisoning:**
Poison Emergency Call Berlin (24 h)
Phone: + 49 (0)30/30686700
- **Telephone number of the company in case of emergencies:**
SERVICE-HOTLINE
Phone: +49 (0) 2163 / 950 90 - 999
during Office Hours: Monday to Thursday 08:00 - 17:00, Friday 8:00-15:00

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
- Met. Corr. 1 H290 May be corrosive to metals.
- Skin Corr. 1C H314 Causes severe skin burns and eye damage.
- Eye Dam. 1 H318 Causes serious eye damage.
- Aquatic Acute 1 H400 Very toxic to aquatic life.
- Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

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· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008** The product is labelled according to the CLP regulation.

· **Hazard pictograms**



GHS05

GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**

sodium hypochlorite

sodium hydroxide

· **Hazard statements**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P260 Do not breathe mist.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P405 Store locked up.

P501 Dispose of contents/container to a household waste recycling centre as hazardous waste except for empty containers which can be disposed of by recycling. Contact your local council for details.

· **Additional information:**

EUH031 Contact with acids liberates toxic gas.

EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).

· **2.3 Other hazards** None if used properly.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.1 Substances** This product is a mixture.

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· **3.2 Mixtures**

· **Description:** Waterbased mixture of chlorine based bleaching agent, nonionic surfactants and buffer substances

· **Dangerous components:**

CAS: 7681-52-9 EINECS: 231-668-3 Reg.nr.: 01-2119488154-34-XXXX	sodium hypochlorite Met. Corr. 1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1)	≥ 3 - < 5%
CAS: 497-19-8 EINECS: 207-838-8 Reg.nr.: 01-2119485498-19-XXXX	sodium carbonate Eye Irrit. 2, H319	2.5 - < 5%
CAS: 1310-73-2 EINECS: 215-185-5 Reg.nr.: 01-2119457892-27-XXXX	sodium hydroxide Met. Corr. 1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318	≥ 0.5 - < 1%

· **SVHC**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of ≥ 0.1 % (w/w).

· **Regulation (EC) No 648/2004 on detergents / Labelling for contents**

chlorine-based bleaching agents, phosphonates, non-ionic surfactants <5%

· **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information**

Instantly remove any clothing soiled by the product.
Show safety data sheet if possible.

· **After inhalation**

Supply fresh air; consult doctor in case of symptoms.
If unconscious but breathing normally, place in recovery position.

· **After skin contact**

Instantly rinse with water.
If skin irritation continues, consult a doctor.
Cover wound with a sterile dressing.

· **After eye contact**

Risk of blindness!
Remove contact lenses, if present and easy to do.
Rinse immediately carefully and thoroughly with eye-bath or water for 15 minutes. Seek medical advice immediately.
Protect uninjured eye.

· **After swallowing**

Do not induce vomiting; instantly call for medical help.
Rinse mouth immediately and drink plenty of water (only if the person is conscious).

· **4.2 Most important symptoms and effects, both acute and delayed**

Causes severe skin burns and eye damage.

· **Information for doctor** Inhalation exposure of sodium hypochlorite is only possible if aerosols are formed.

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- **4.3 Indication of any immediate medical attention and special treatment needed**
Treat symptomatically and directed to relieving any effects.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
Water spray jet (if possible, avoid full jet). Adapt the fire-fighting measures to the environmental conditions. Commercially available extinguishers are suitable for fighting incipient fires. The product itself does not burn.
- **For safety reasons unsuitable extinguishing agents**
For this mixture no limitations of extinguishing agents are given.
- **5.2 Special hazards arising from the substance or mixture**
Can be released in case of fire:
Chlorine.
Hydrogen chloride (HCl)
Chlordioxid
Nitrogen oxides (NOx)
Carbon monoxide (CO) and Carbon dioxide (CO₂)
Reacts with base metals, forming combustible gas (hydrogen).
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear a self-contained breathing apparatus.
Wear chemical protective clothing.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Cool endangered containers with water spray jet.
Container explosions may occur under fire conditions. May explode by heat.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Put on breathing apparatus.
Ensure adequate ventilation of the area.
Keep people at a distance and stay on the windward side.
Special danger of slipping by leaking/spilling product.
- **6.2 Environmental precautions:**
Do not allow to enter into surface water or drains.
Inform respective authority in case of product reaches water or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Absorb spillage to prevent material damage.
Do not try to neutralize spilled product with any acid.
Wipe up with absorbent material (eg. cloth, fleece, sand, diatomite, acid binders, universal binders).
Collect in closed and suitable containers for disposal.

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· **6.4 Reference to other sections**

- See Section 7 for information on safe handling
- See Section 8 for information on personal protection equipment.
- See Section 13 for information on disposal.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

- Always read the label and product information before use.
- Provide adequate ventilation.
- Any mixing with acids/acid-containing products must be avoided.
- Emergency shower when working with large quantities.

· **Information about protection against explosions and fires:**

- The product is not flammable.
- Under fire conditions, this product may emit toxic and/or irritating fumes and gases, including chlorine, hydrogen chloride and chlorine dioxide.
- Keep breathing equipment ready.

· **General protective and hygienic measures**

- When handling with chemical substances, the usual precautionary measures should be adhered.
- Keep away from foodstuffs, beverages and food.
- Remove contaminated, saturated clothing immediately.
- Wash hands before breaks and after work.
- Do not inhale dust / smoke / mist.
- Avoid contact with the eyes and skin.
- Do not wear arm or hand jewellery (rings) at work.
- Clean skin thoroughly immediately after handling the product.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and containers:**

- Keep/store only in labeled original container.
- Transport upright and store in a cool, dark places.
- Store in a well-ventilated place. Keep container tightly closed.

· **Information about storage in one common storage facility:**

- Do not store together with: Acids.
- Do not store together with: Foodstuffs.
- Do not store together with: Metals.
- Do not store together with textiles.
- Store away from reducing agents.
- Store away from flammable substances.

· **Further information about storage conditions:**

- Protect from contamination
- Store in a cool place. Heat will increase pressure and may lead to the container exploding.

· **Recommended storage temperature:** +5 °C up to +20 °C

· **Storage class** LGK 8B: Non-combustible corrosive substances

· **7.3 Specific end use(s)**

- See Section 1.2.1
- For more MELLERUD products please visit www.mellerud.de.

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· **GISCODES:** GS90 Sanitary cleaner, based on hypochlorite

SECTION 8: Exposure controls/personal protection

· **Remark:** Only relevant for professional/industrial use

· **8.1 Control parameters**

· **8.1.1 Components with critical values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Occupational exposure limits of decomposition products:**

CAS: 7782-50-5 chlorine

AGW (Germany)	Long-term value: 1.5 mg/m ³ , 0.5 ppm 1(l);DFG, EU, Y
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MAK (Germany)	Long-term value: 1.5 mg/m ³ , 0.5 ppm
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IOELV (European Union)	Short-term value: 1.5 mg/m ³ , 0.5 ppm
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CAS: 10049-04-4 chlorine dioxide

AGW (Germany)	Long-term value: 0.28 mg/m ³ , 0.1 ppm 1(l);DFG
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MAK (Germany)	Long-term value: 0.28 mg/m ³ , 0.1 ppm
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CAS: 7647-01-0 hydrogen chloride

AGW (Germany)	Long-term value: 3 mg/m ³ , 2 ppm 2(l);DFG, EU, Y
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MAK (Germany)	Long-term value: 3.0 mg/m ³ , 2 ppm
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IOELV (European Union)	Short-term value: 15 mg/m ³ , 10 ppm Long-term value: 8 mg/m ³ , 5 ppm
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· **8.1.2 DNELs**

· **Workers**

· **Long-term-systemic effects:**

CAS: 7681-52-9 sodium hypochlorite

Inhalative	DNEL	1.55 mg/m ³
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· **Long-term – local effects:**

CAS: 1310-73-2 sodium hydroxide

Inhalative	DNEL	1 mg/m ³
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· **Acute - systemic effects :**

CAS: 7681-52-9 sodium hypochlorite

Inhalative	DNEL	1.55 mg/m ³
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· **8.1.3 PNECs**

CAS: 7681-52-9 sodium hypochlorite

PNEC fresh water	0.00021 mg/l
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PNEC sewage treatment plant	4.69 mg/l
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- **8.1.4 Ingredients with biological limit values:** No data available.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **8.2.1 Engineering Controls:**
Technical measures and the application of suitable work processes have priority over personal protection equipment. See section 7.1.
- **8.2.2 Personal protective equipment**
For special purposes, it is recommended to check the resistance to chemicals of the protective clothing/gloves mentioned below together with the supplier of the PPE.
- **Breathing equipment:**
Not required at determined application.
Wear breathing apparatus if exposed to vapours or aerosols.
- **Recommended filter device for short term use:**
Combination filter B-P (grey-white)
Respirator with combination filter for vapour/particulate (EN 141). ABEK-P-filter.
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. The measures have to be properly documented.
For Germany the rules for the use of respirators as well as the wearing time limit in accordance with the Employer's Liability Insurance Association rule (BGR) 190 are to be observed!
- **Protection of hands:**
Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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.
- **Material of gloves**
Natural rubber, NR
Recommended thickness of the material: ≥ 0.4 mm
For instance Vital 117 (Mapa GmbH)
- **Penetration time of glove material**
>480 min
In the case of longer and repeated exposure, please note that in practice the penetration times may be considerably shorter than those determined according to EN374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. We recommend to change single-use protective gloves periodically and a hand care plan in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.
- **Not suitable are gloves made of the following materials:**
Leather gloves
Rigid gloves
- **Eye protection:**
Gauze goggles
Face protection
- **Body protection:** Alkaline resistant protective clothing
- **8.2.3 Limitation and supervision of exposure into the environment** See sections 6 and 7.

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SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **9.1.1 Appearance:**

Form:	Fluid
Colour:	Yellow
· Smell:	Chlorine-like

· **9.1.2 Safety relevant basic data:**

pH-value at 20 °C:	12.0<pH≤13.0 (DIN 19268)
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· **Change in condition**

Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	100 °C

· Flash point:	Not applicable
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· Inflammability (solid, gaseous)	Not applicable.
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· Ignition temperature:	Not determined.
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· Decomposition temperature:	Not determined.
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· Self-inflammability:	Product is not selfigniting.
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· Explosive properties:	Product is not explosive.
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· **Critical values for explosion:**

Lower:	Not applicable.
Upper:	Not applicable.

· Oxidising properties	Not applicable.
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· Steam pressure at 20 °C:	23 hPa
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· Density at 20 °C	1130 kg/m ³ (ISO 387)
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· Relative density at 20 °C	1.130 (ISO 15212-1)
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· Evaporation rate	Not determined.
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· **Solubility in / Miscibility with**

Water:	Fully miscible
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· Partition coefficient: n-octanol/water:	Not applicable.
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· **Viscosity:**

dynamic:	Not determined.
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kinematic:	Not determined.
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VOC (EU)	0 %
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- **9.1.3 Physical properties**
- **Corrosiveness to metals**
Conclusion/Classification May be corrosive to metals.
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** See section 10.3.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
 No decomposition if used and stored according to specifications.
- **Decomposition will begin at:** >40 °
- **10.3 Possibility of hazardous reactions**
 Corrosive action on metals
 May cause light formation of hydrogen by contact with light metals (e.g. alumina).
 Reacts with acids releasing chlorine
- **10.4 Conditions to avoid** Warming.
- **10.5 Incompatible materials:**
 Acids (violent decomposition with release of chlorine)
 Reducing agent
 combustible materials
- **10.6 Hazardous decomposition products:** In case of fire: See section 5.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**

· **Hazardous substances:**

CAS: 7681-52-9 sodium hypochlorite

Oral	LD50	> 2000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)

CAS: 497-19-8 sodium carbonate

Oral	LD50	2800 mg/kg (rat) (OECD 401 Acute Oral Toxicity) 1978; IUCLID; Reliability: 2
Dermal	LD50	> 2000 mg/kg (rabbit) (EPA 16 CFR 1500.40) Testsubstance: sodium carbonate monohydrate; 1978; IUCLID; Reliability: 1
Inhalative	LC50/2h	2300 mg/l (rat) (OECD403 Acute Inhalation Toxicity) 1983; IUCLID; Reliability:2

CAS: 1310-73-2 sodium hydroxide

Oral	LD50	mg/kg (study scientifically not necessary)
Dermal	LD50	mg/kg (study scientifically not necessary)

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Inhalative	LC50/4h/Stäube/Nebel	mg/l (study scientifically not necessary)
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· **Product/Mixture:**

Oral	ATE mix	> 5000 mg/kg (calculation method)
Dermal	ATE mix	> 5000 mg/kg (calculation method)
Inhalative	ATE mix dust/mist	> 5000 mg/l/4h (calculation method)

· **Assessment / Classification:** Based on available data, the classification criteria are not met.

· **Skin corrosion/irritation**

· **Hazardous substances:**

CAS: 7681-52-9 sodium hypochlorite

Result: Category 1B (Corrosive) (Source: Supplier safety data sheet)

CAS: 497-19-8 sodium carbonate

Result: No irritation 4 (rabbit) (OECD404 Acute Dermal Irritation/Corrosion)
 IUCLID; Reliability: 24

CAS: 1310-73-2 sodium hydroxide

Result: Category 1A (Corrosive) (IUCLID)
 Skin Corr. 1A, H314: C ≥ 5 %
 Skin Corr. 1B, H314: 2 % ≤ C < 5 %
 Skin Irrit. 2, H315: 0,5 % ≤ C < 2 %

· **Product/Mixture:**

Result: Category 1C (Corrosive) > 30 min (Human skin model) (OECD435 in vitro Membrane Barrier Test)

· **Assessment / Classification:**

Causes severe skin burns and eye damage.

· **Serious eye damage/irritation**

· **Hazardous substances:**

CAS: 7681-52-9 sodium hypochlorite

Result: Category 1 (Irreversible effects on the eye) (Source: Supplier safety data sheet)

CAS: 497-19-8 sodium carbonate

Result: Irritant (rabbit) (EPA 16 CFR 1500.42)
 IUCLID; Reliability: 1

CAS: 1310-73-2 sodium hydroxide

Result: Category 1 (Irreversible effects on the eye) (IUCLID)
 Eye Dam. 1; H318 C ≥ 2 %
 Eye Irrit.2; H319: 0,5% ≤ C < 2 %

· **Product/Mixture:**

Result: - (Not tested)

· **Assessment / Classification:**

Skin corrosive products category 1 may also cause serious eye damages.
 Causes serious eye damage.

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· **Respiratory or skin sensitisation**

· **Hazardous substances:**

CAS: 7681-52-9 sodium hypochlorite

Result: Does not cause skin sensitisation (Source: Supplier safety data sheet)

CAS: 497-19-8 sodium carbonate

Result: Does not cause skin sensitisation (study scientifically not necessary)

CAS: 1310-73-2 sodium hydroxide

Result: Does not cause skin sensitisation (Human) (Human Patch Test)

· **Product/Mixture:**

Result: - (Not tested)

· **Assessment / Classification:** Based on available data, the classification criteria are not met.

· **Acute effects (acute toxicity, irritation and corrosivity)**

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

· **Germ cell mutagenicity**

Product/Mixture:

Assessment / Classification:

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

· **Carcinogenicity**

Product/Mixture:

Assessment / Classification:

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

· **Reproductive toxicity**

Product/Mixture:

Assessment / Classification:

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

· **STOT-single exposure**

Product/Mixture:

Assessment / Classification:

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

· **STOT-repeated exposure**

Product/Mixture:

Assessment / Classification:

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

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- **Aspiration hazard**
- Product/Mixture:**
- Assessment / Classification:**
 Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**

· **Hazardous substances:**

CAS: 7681-52-9 sodium hypochlorite

NOEC/21d	0.01 mg/l (Epioblasma capsaeformis) (No guideline followed) Valenti et al. (2006); REACH, 2014, Reliability:2
NOEC/28d	0.04 mg/l (fish) (No guideline followed) Goodman et al. (1983)
ErC50/24h	< 0.024 mg/l (Pseudokirchneriella subcapitata) (OECD201 Algae Growth Inhibition Test) Liedtke(2013); GLP; Reliability:1;
EC50/48 h	< 0.0271 mg/l (Daphnia magna (water flea)) (OECD202 Daphnia sp. Acute Immobilisation Test) Gallagher, et al. (2011); GLP; REACH,2014; Reliability: 1
LC50/96 h	0.034 mg/l (rainbow trout (Oncorhynchus mykiss)) (No guideline followed) Thatcher, 1978; RAR,2007; DAR,2008; Reliability: 2

CAS: 497-19-8 sodium carbonate

EC50/48 h	265 mg/l (Daphnia magna (water flea)) IUCLID
LC50/96 h	300 mg/l (Lepomis macrochirus (bluegill)) IUCLID

CAS: 1310-73-2 sodium hydroxide

EC50/48 h	40.4 mg/l (Daphnia magna (water flea)) Warne et al. (1999); Reliability: 2
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· **Product/Mixture:**

Result: (Not tested)

- **Assessment / Classification:** Very toxic to aquatic life with long lasting effects.

· **12.2 Persistence and degradability**

· **Hazardous substances:**

CAS: 7681-52-9 sodium hypochlorite

Biodegradability	% (non applicable) The methods for determining biodegradability are not applicable to inorganic substances.
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CAS: 497-19-8 sodium carbonate

Biodegradability	% (non applicable) The methods for determining biodegradability are not applicable to inorganic substances.
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CAS: 1310-73-2 sodium hydroxide

Biodegradability % (non applicable)

The methods for determining biodegradability are not applicable to inorganic substances.

- **Product/Mixture:** Test data are not available for the complete mixture.
- **Conclusions:**
Anorganic product, is not eliminable from water by means of biological cleaning processes.
The contained surfactants are easily biodegradable.

· **12.3 Bioaccumulative potential**

· **Hazardous substances:**

CAS: 7681-52-9 sodium hypochlorite

Biocoaccumulative potential (study scientifically not necessary)
sodium hypochlorite does not bioaccumulate (log Pow = -0.87 at pH 7; rapid degradation in the environment)

CAS: 497-19-8 sodium carbonate

Biocoaccumulative potential Does not bioaccumulate. The substance dissociates fully on introduction to water. Log Po/w is not applicable for an inorganic compound which dissociates.

CAS: 1310-73-2 sodium hydroxide

Biocoaccumulative potential Bioaccumulation is not expected.
log P(o/w) < 1

- **Product/Mixture:** Remarks: No data available
- **Conclusions:** Bioaccumulation is not expected.

· **12.4 Mobility in soil**

· **Hazardous substances:**

CAS: 7681-52-9 sodium hypochlorite

Distribution among environmental compartments: Can be leached out from soil. Transport to air is not expected.

CAS: 497-19-8 sodium carbonate

Distribution among environmental compartments: Remarks: No data available

CAS: 1310-73-2 sodium hydroxide

Distribution among environmental compartments: Remarks: No data available

- **Product/Mixture:** No information available.

· **Ecotoxicological effects:**

- **Remark:**
Harmful effect on fish, planktonic and sessile organisms is possible due to pH shift.
Very toxic to aquatic life with long lasting effects.
Very toxic for fish
- **Behaviour in sewage processing plants:** Remarks: No data available
- **Respiratory inhibition of communal activated sludge EC 20 (mg/l according to ISO 8192 B):**
Remarks: No data available

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· **Additional ecological information:**

· **BSB5-value:** Remarks: No data available

· **General notes:**

The surfactants contained in this preparation 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.

Avoid entering sewage water or drainage ditch undiluted or unneutralised.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

Water hazard class 2 (Self-assessment): hazardous for water.

Danger to drinking water if even small quantities leak into soil.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **13.1.1 Appropriate disposal / Product/Mixture:**

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to enter sewage system.

Hand over to disposers of hazardous waste.

Dispose of in accordance with local and national regulations.

· **List of proposed waste codes/waste designations in accordance with EWC:**

07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 04 00	wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides
07 04 01*	aqueous washing liquids and mother liquors
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by hazardous substances
HP 12	Release of an acute toxic gas
HP 14	Ecotoxic

· **13.1.2 Appropriate disposal / Package:**

· **Recommendation:**

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

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· **Recommended cleaning agent:** Use water, if necessary with cleaning agent.

SECTION 14: Transport information

· **UN-Number**
 · **ADR/RID/ADN, IMDG, IATA** UN1719

· **14.2 UN proper shipping name**
 · **ADR/RID/ADN** UN1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, HYPOCHLORITE SOLUTION), ENVIRONMENTALLY HAZARDOUS
 · **IMDG** CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, HYPOCHLORITE SOLUTION), MARINE POLLUTANT
 · **IATA** CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, HYPOCHLORITE SOLUTION)

· **14.3 Transport hazard class(es)**

· **ADR/RID/ADN**



· **Class** 8 (C5) Corrosive substances.
 · **Label** 8
 · **IMDG**



· **Class** 8 Corrosive substances.
 · **Label** 8
 · **IATA**



· **Class** 8 Corrosive substances.
 · **Label** 8

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· 14.4 Packing group	
· ADR/RID/ADN, IMDG, IATA	III
· Environmental hazards:	Product contains environmentally hazardous substances: sodium hypochlorite
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR/RID/ADN):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Corrosive substances.
· Kemler Number:	80
· EMS Number:	F-A,S-B
· Segregation groups	(8) Hypochlorites
· Stowage Category	A
· Segregation Code	SG22 Stow "away from" ammonium salts SG35 Stow "separated from" acids.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Excepted quantities (EQ):	E2
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, HYPOCHLORITE SOLUTION), 8, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **European Regulations and Directives:**
Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
Regulation (EC) No. 1272/2008 (CLP, EU GHS)
- **Directive 1999/13/EC:** Not applicable.
- **2004/42/EC, Deco-Paint Directive:** Not applicable.

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- **Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products:**
This product is a biocide in the sense of the Regulation (EU) No 528/2012. Use biocides safely. Always read the label and product information before use.
- **Type of formulation:** Ready to use liquid - trigger spray
- **Authorisation Number:**
This biocidal product can be placed on the German market and used without being authorised as long as no decision on approval or non-approval of the respective active substances has been taken.
- **Active substance:** sodium hypochlorite 55,4 g/l (4,7% as active chlorine)
- **Biocidal Product-Type:**
Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals
- **Categories of users to which the biocidal product is restricted:** General public
- **Directive 2012/18/EU**
- **Seveso category**
41 Mixtures of sodium hypochlorite classified as Aquatic Acute Category 1 [H400] containing less than 5 % active chlorine and not classified under any of the other hazard categories in Part 1 of Annex I.
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations**
Law for Detergents and Cleaning Products in German Federal Legislation (Wasch- und Reinigungsmittelgesetz, WRMG)
Act on the Protection Against Hazardous Substance (Chemicals Act- ChemG)
Poisoning information ordinance - ChemGiftInfoV
Ordinance on Hazardous Substances - GefStoffV
German Food and Feed Code (LFGB)
Act on making products available on the market (Product Safety Act)
- **Biocide Notification Ordinance:**
- **BAuA-Reg.No. (Germany):**
N-16665
Notification date: 12.07.2005
- **Information about limitation of use:**
Observe restrictions to employment for juveniles.
Observe employment restrictions for pregnant and nursing mothers.
- **Ordinance on Hazardous Substances (12. BImSchV):**
2.30 Mixtures of sodium hypochlorite classified as Aquatic Acute Category 1 [H400] containing less than 5 % active chlorine and not classified under any of the other hazard categories
- **Solvent Ordinance (31. BImSchV):** not applicable.
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

- **16.1 Indication of changes:** The safety data sheet were checked/revised.
- **Replaces version of:** 09.01.2015 (V3.0)
- **16.2 Relevant R-, H- and EUH-phrases (number and full text):**
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

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H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

· **16.3 Training hints**

Employers must ensure that, prior to commencement to their work and then at least once every year, workers carrying out activities using hazardous substances be given verbal instruction relating to the workplace or the activity, on the basis of the working instruction. (TRGS 555) Additional details for intended use, please find in the technical Informations and internet under www.mellerud.de In case of doubt please use our product hotline - +49 (0)2163 / 950 90 - 999.

· **16.4 Sources of key data used to compile the data sheet:**

Data arise from reference works and literature.

Raw material SDS

Hazardous materials information system GisChem (www.gischem.de)

Classification & labelling inventory of ECHA (http://echa.europa.eu/clp/c_l_inventory_en.asp)

eChemPortal (http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

TOXNET (<http://toxnet.nlm.nih.gov/index.html>)

International Chemical Safety Cards (ICSC) (<http://www.ilo.org/dyn/icsc/showcard.home>)

GESTIS database (www.dguv.de/bgia/de/gestis/stoffdb/index.jsp)

Registered substances by ECHA (<http://echa.europa.eu/en/information-on-chemicals/registered-substances>)

CheLIST (<http://chelist.jrc.ec.europa.eu/>)

· **16.5 Additional Information:**

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.

· **Classification for mixtures and used evaluation method according to regulation (EC)1207/2008 [CLP]:**

Met. Corr. 1, H290: On basis of test data

Skin Corr. 1C, H314: On basis of test data

Eye Dam. 1, H318: Expert judgement

Aquatic Acute 1, H400: Calculation method

Aquatic Chronic 2, H411: Calculation method

· **Department issuing data specification sheet:** Department Regulatory Affairs

· **Contact:**

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· **16.6 Any Abbreviations and acronyms used in this document:**

ATE Acute Toxicity Estimate

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

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

CEN European Committee for Standardisation

C&L Classification and Labelling

CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

CAS Chemical Abstracts Service number

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COM European Commission
 CMR Carcinogen, Mutagen, or Reproductive Toxicant
 CSA Chemical Safety Assessment
 CSR Chemical Safety Report
 DNEL Derived No Effect Level
 DPD Dangerous Preparations Directive 1999/45/EC
 DSD Dangerous Substances Directive 67/548/EEC
 DU Downstream User
 DUCC Downstream Users of Chemicals Co-ordination platform
 EEA European Economic Area (EU + Iceland, Liechtenstein and Norway)
 ECB European Chemicals Bureau
 ECHA European Chemicals Agency
 EC-Number EINECS and ELINCS Number (see also EINECS and ELINCS)
 EINECS European Inventory of Existing Commercial Substances
 ELINCS European List of notified Chemical Substances
 EN European Standard
 ext-SDS Extended Safety Data Sheet (SDS with ES attached)
 EU European Union
 Euphrac European Phrase Catalogue
 EWC European Waste Catalogue (replaced by LoW – see below)
 GES Generic Exposure Scenario
 GHS Globally Harmonized System
 HH Human Health
 IATA International Air Transport Association
 ICAO-TI Technical Instructions for the Safe Transport of Dangerous Goods by Air
 IMDG International Maritime Dangerous Goods
 IMSBC International Maritime Solid Bulk Cargoes
 IT Information Technology
 IUCLID International Uniform Chemical Information Database
 IUPAC International Union for Pure Applied Chemistry
 JRC Joint Research Centre
 Kow octanol-water partition coefficient
 LC50 Lethal Concentration to 50 % of a test population
 LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)
 LoW List of Wastes (see ec.europa.eu/environment/waste/framework/list.htm)
 MS Member States
 MSDS Material Safety Data Sheet
 OC Operational Conditions
 OECD Organization for Economic Co-operation and Development
 OECD-WPMNM OECD Working Party on Manufactured Nanomaterials
 OEL Occupational Exposure Limit
 OH Occupational Health
 OSHA European Agency for Safety and Health at work
 PBT Persistent, Bioaccumulative and Toxic substance
 PEC Predicted Effect Concentration
 PNEC(s) Predicted No Effect Concentration(s)
 PPE Personal Protection Equipment
 (Q)SAR Qualitative Structure Activity Relationship
 REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No1907/2006

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RID Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP REACH Implementation Project
RMM Risk Management Measure
SC Supply Chain
SCBA Self-Contained Breathing Apparatus
SDS Safety Data Sheet
STOT Specific Target Organ Toxicity
(STOT) RE Repeated Exposure
(STOT) SE Single Exposure
SVHC Substances of Very High Concern
UN United Nations
VCI Verband der Chemischen Industrie
vPvB Very Persistent and Very Bioaccumulative

DE/EN