Dr. Grogg Chemie AG
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COVER SHEET FOR THE SAFETY DATA SHEET

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Item number: G320

Trade name: Javel water 13/14%

Supplier:
Dr. Grogg Chemie AG
Gümligentalstrasse 83
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Emergency number:
24-hour emergency number: 145
Help with poisoning. Tox Info Suisse provides free medical advice round the clock in cases of poisoning or suspected poisoning.

Tox Info Suisse
Freiestrasse 16
8032 Zürich
Tel. +41 (0) 44 251 51 51
www.toxinfo.ch

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006, as amended

SODIUM HYPOCHLORITE SOLUTION 13/14%

Version 3.0 Print Date 24.11.2026

Revision date / valid from 23.06.2026

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

1.1. Product identifier

Trade name	:	SODIUM HYPOCHLORITE SOLUTION 13/14%
Substance name	:	sodium hypochlorite, solution
Index-No.	:	017-011-00-1
CAS-No.	:	7681-52-9
EC-No.	:	231-668-3
EU REACH-Reg. No.	:	01-2119488154-34-xxxx
UFI	:	R7KM-70NA-7008-S09P
UFI code notified in	:	Austria, Germany, Denmark, Estonia, Spain, France, Croatia, Ireland, Iceland, Liechtenstein, Lithuania, Latvia, Malta, Netherlands, Norway, Portugal, Sweden

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

Use of the Substance/Mixture	:	Identified use: See table in front of appendix for a complete overview of identified uses.
Uses advised against	:	Not to be used as a biocidal product.

1.3. Details of the supplier of the safety data sheet

Company	:	Brenntag Schweizerhall AG Elsässerstrasse 231 CH 4002 Basel
Telephone	:	+41 (0)58 344 80 00
Telefax	:	+41 (0)58 344 82 08
E-mail address	:	doku@brenntag.ch
Responsible/issuing person	:	Abteilung Produktsicherheit

1.4. Emergency telephone number

Emergency telephone number	:	Swiss Toxicological Information Centre CH-8032 ZÜRICH Tel.: +41 (0) 44 251 51 51 National emergency call: 145

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	**Hazard category**	**Target Organs**	**Hazard statements**
Corrosive to metals	Category 1	---	H290
Skin corrosion	Category 1B	---	H314
Serious eye damage	Category 1	---	H318
Short-term (acute) aquatic hazard	Category 1	---	H400
Long-term (chronic) aquatic hazard	Category 2	---	H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

Most important adverse effects

Human Health	:	See section 11 for toxicological information.
Physical and chemical hazards	:	See section 9/10 for physicochemical information.
Potential environmental effects	:	See section 12 for environmental information.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols :



Signal word : Danger

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

Prevention :

P273	Avoid release to the environment.
P260	Do not breathe gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response :

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing.

			Rinse skin with water or shower.
		P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P308 + P310	IF exposed or concerned: Immediately call a POISON CENTER/doctor.
Storage	:	P406	Store in a corrosion resistant container with a resistant inner liner.

Additional Labelling:

EUH031 Contact with acids liberates toxic gas.

Hazardous components which must be listed on the label:

- sodium hypochlorite, solution

2.3. Other hazards

The PBT or vPvB criteria of Annex XIII to the REACH Regulation does not apply to inorganic substances.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical nature : Aqueous solution

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)	
		Hazard class / Hazard category	Hazard statements
sodium hypochlorite, solution			
Index-No. : 017-011-00-1 CAS-No. : 7681-52-9 EC-No. : 231-668-3	>= 12 - <= 15	Met. Corr.1 Skin Corr.1B Eye Dam.1 STOT SE3 Aquatic Acute1 Aquatic Chronic1	H290 H314 H318 H335 H400 H410

EU REACH-Reg. No. : 01-2119488154-34-xxxx		M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1 specific concentration limit EUH031 >= 5 %	EUH031

sodium hydroxide

Index-No. : 011-002-00-6 CAS-No. : 1310-73-2 EC-No. : 215-185-5 EU REACH-Reg. No. : 01-2119457892-27-xxxx	<= 1	Met. Corr.1 Skin Corr.1A Eye Dam.1 specific concentration limit Skin Irrit. 2; H315 0,5 - < 2 % Eye Irrit. 2; H319 0,5 - < 2 % Skin Corr. 1A; H314 >= 5 % Skin Corr. 1B; H314 2 - < 5 %	H290 H314 H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : Take off all contaminated clothing immediately.

If inhaled : In case of accident by inhalation: remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

In case of skin contact : Wash off immediately with plenty of water. If irritation appears or if the contamination is extensive, seek medical advice. Wash off immediately with soap and plenty of water.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.

If swallowed : Rinse mouth with water. Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting - seek medical advice. If a person vomits when lying on his back, place him in the recovery position.

Protection of First Aid Responders : First Aid responders should pay attention to self-protection and use the recommended protective clothing.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	: See Section 11 for more detailed information on health effects and symptoms.;
Effects	: See Section 11 for more detailed information on health effects and symptoms.

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

Treatment	: No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.
Unsuitable extinguishing media	:	High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Hazardous decomposition products formed under fire conditions.
Hazardous combustion products	:	Chlorine, Hydrogen chloride gas, chlorine oxides

5.3. Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.Wear appropriate body protection (full protective suit)
Further advice	:	Cool closed containers exposed to fire with water spray.Heating will cause a pressure rise - with risk of bursting.Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Wear respiratory protection. Keep away unprotected persons. Provide adequate ventilation. Danger of slipping if spilled Avoid contact with skin and eyes. Do not breathe vapor.

6.2. Environmental precautions

Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up	:	Absorb with liquid-binding material (sand, diatomite, universal binders). Keep in suitable, closed containers for disposal. Do not keep the container sealed.
Further information	:	Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on personal protective equipment.
See Section 13 for waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	:	Do not keep the container sealed. Handle and open container with care. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist. Use respirator with appropriate filter if vapours or aerosol are released. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.
Hygiene measures	:	Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep in an area equipped with alkali resistant flooring. Keep only in the original container. Store in a receptacle equipped with a vent.
Advice on protection against fire and explosion	:	The product is not flammable. Normal measures for preventive fire protection.
Fire-fighting class	:	strong oxydativ material
Further information on storage conditions	:	Keep in a well-ventilated place. Protect against light. Store in cool place.
Advice on common storage	:	Keep away from food, drink and animal feeding stuffs. Do not store together with acids and ammonium salts.
German storage class	:	8B Non-combustible corrosive substances
Suitable packaging materials	:	Polyethylene, Polyvinylchloride

Unsuitable packaging materials	:	Iron, Copper, Aluminium, Stainless steel

7.3. Specific end use(s)

Specific use(s)	:	Identified use: See table in front of appendix for a complete overview of identified uses.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component:	sodium hypochlorite, solution	CAS-No. 7681-52-9

Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

DNEL Workers, Acute - systemic effects, Acute - local effects, Inhalation	:	3,1 mg/m3
DNEL Workers, Long-term - systemic effects, Long-term - local effects, Inhalation	:	1,55 mg/m3
DNEL Workers, Long-term - local effects, Skin contact	:	0,5 %
DNEL Consumers, Long-term - systemic effects, Long-term - local effects, Inhalation	:	1,55 mg/m3
DNEL Consumers, Acute - local effects, Acute - systemic effects, Inhalation	:	3,1 mg/m3
DNEL Consumers, Long-term - systemic effects, Ingestion	:	0,26 mg/kg bw/day

Predicted No Effect Concentration (PNEC)

Fresh water	:	0,21 µg/l
Marine water	:	0,042 µg/l
Sewage treatment plant (STP)	:	4,69 mg/l
Intermittent releases	:	0,26 µg/l
Soil Exposition is not expected.	:	
Marine sediment Exposition is not expected.	:	

Fresh water sediment :
Exposition is not expected.

Secondary poisoning : 11,1 mg/kg food

Component:	sodium hydroxide	CAS-No. 1310-73-2
Other Occupational Exposure Limit Values		

Switzerland. OELs. Limit Values at the Workplace, as per SUVA, as amended, Inhalable fraction.
If in compliance with the OEL and BEL values, then there should be no risk of reproductive damage.

Switzerland. OELs. Limit Values at the Workplace, as per SUVA, as amended, Time Weighted Average (TWA):, Inhalable fraction.
2 mg/m3

Switzerland. OELs. Limit Values at the Workplace, as per SUVA, as amended, Short Term Exposure Limit (STEL):, Inhalable fraction.
2 mg/m3

Component:	chlorine	CAS-No. 7782-50-5
Other Occupational Exposure Limit Values		

EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended, Short Term Exposure Limit (STEL):
0,5 ppm, 1,5 mg/m3
Indicative

Switzerland. OELs. Limit Values at the Workplace, as per SUVA, as amended, Time Weighted Average (TWA):
0,5 ppm, 1,5 mg/m3

Switzerland. OELs. Limit Values at the Workplace, as per SUVA, as amended, Short Term Exposure Limit (STEL):
0,5 ppm, 1,5 mg/m3

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice : Use respirator with appropriate filter if vapours or aerosol are released.

Recommended Filter type:
Combination filter:B-P2
Combination filter:B-P3
In case of intensive or longer exposure use self-contained breathing apparatus.
Equipment should conform to EN 14387

Hand protection

Advice	:	Protective gloves complying with EN 374. The glove material has to be impermeable and resistant to the product / the substance / the preparation. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Protective gloves should be replaced at first signs of wear.
Material	:	butyl-rubber
Break through time	:	8 h
Glove thickness	:	0,5 mm

Material	:	Polyvinylchloride
Break through time	:	8 h
Glove thickness	:	0,5 mm

Material	:	polychloroprene
Break through time	:	8 h
Glove thickness	:	0,5 mm

Eye protection

Advice	:	Safety glasses with side-shields conforming to EN166

Skin and body protection

Protecting Clothes	:	alkali resistant protective clothing

Environmental exposure controls

General advice	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	:	liquid
Physical state	:	liquid
Colour	:	yellow, green
Odour	:	of, Chlorine

Odour Threshold	:	No data available
Melting point/ range	:	ca. -30 - -20 °C 13 - 16% solution
Boiling point/boiling range	:	ca. 100 °C (1013 hPa) 13 - 16% solution
Flammability (solid, gas)	:	Product is a liquid, see section 9.2.
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	> 111 °C
Self-Accelerating decomposition temperature (SADT)	:	No data available
pH	:	12 - 13 Concentration: 100 % (formulated product)
Viscosity		
Viscosity, dynamic	:	3 - 4 mPa.s (20 °C)
Viscosity, kinematic	:	No data available
Flow time	:	No data available
Solubility(ies)		
Water solubility	:	completely miscible
Solubility in other solvents	:	No data available
Dissolution Rate	:	No data available
Partition coefficient: n-octanol/water	:	log Pow: -3,42 (20 °C)
Dispersion Stability	:	No data available
Vapour pressure	:	ca. 20 hPa (20 °C) 13 - 16% solution
Relative density	:	No data available
Density	:	1,21 - 1,23 g/cm3 (20 °C)
Bulk density	:	No data available

Relative vapour density	:	No data available
Particle characteristics		
Assessment	:	This substance/ mixture does not contain nanoforms (according to REACH Regulation)
Particle size	:	Not applicable

9.2 Other information

Explosives	:	Product is not explosive.
Oxidizing properties	:	Oxidizing agents
Flammability (liquids)	:	non-combustible
Corrosion to metals	:	Corrosive to metals

SECTION 10: Stability and reactivity

10.1. Reactivity

Advice	:	Contact with acids liberates toxic gas. Is corrosive to metals.

10.2. Chemical stability

Advice	:	Decomposes on heating. Decomposes on exposure to light.

10.3. Possibility of hazardous reactions

Hazardous reactions	:	May develop chlorine if mixed with acidic solutions.

10.4. Conditions to avoid

Conditions to avoid	:	Heat
Thermal decomposition	:	> 111 °C

10.5. Incompatible materials

Materials to avoid	:	Acids, ammonium compounds, Acetic anhydride, Organic materials, Hydrogen peroxide, metal salts, Copper, Nickel, Iron

10.6. Hazardous decomposition products

Hazardous decomposition products	:	Hydrogen chloride gas, Chlorine, chlorine oxides

SECTION 11: Toxicological information

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

Data for the product

Acute toxicity

Oral

Not classified based on the calculation method according to CLP regulation.

Inhalation

Not classified based on the calculation method according to CLP regulation.

Dermal

Not classified based on the calculation method according to CLP regulation.

Irritation

Skin

Result : Classified based on the calculation method according to CLP regulation.

Eyes

Result : Classified based on the calculation method according to CLP regulation.

Sensitisation

Result : Not classified based on the calculation method according to CLP regulation.

CMR effects

CMR Properties

Carcinogenicity : Not classified based on the calculation method according to CLP regulation.

Mutagenicity : Not classified based on the calculation method according to CLP regulation.

Teratogenicity : Not classified based on the calculation method according to CLP regulation.

Reproductive toxicity : Not classified based on the calculation method according to CLP regulation.

Specific Target Organ Toxicity

Single exposure

Remarks : Not classified based on the calculation method according to CLP regulation.

Repeated exposure

Remarks	:	Not classified based on the calculation method according to CLP regulation.

Other toxic properties

Repeated dose toxicity

No data available

Aspiration hazard

Not applicable,

Component:	**sodium hypochlorite, solution**	**CAS-No. 7681-52-9**

Acute toxicity

Oral

LD50	:	> 1100 mg/kg (Rat; Test substance: Chlorine) (OECD Test Guideline 401)

Inhalation

LC50	:	> 10,5 mg/l (Rat; 1 h; Test substance: Chlorine) (OECD Test Guideline 403)

Dermal

LD50	:	> 20000 mg/kg (Rabbit; Test substance: Chlorine) (OECD Test Guideline 402)

Irritation

Skin

Result	:	corrosive effects (Human)

Eyes

Result	:	Causes serious eye damage. (Rabbit) (OECD Test Guideline 405)

Sensitisation

Result	:	not sensitizing (Buehler Test; Guinea pig) (OECD Test Guideline 406)

CMR effects

CMR Properties

Carcinogenicity	:	Animal testing did not show any carcinogenic effects.
Mutagenicity	:	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects
Teratogenicity	:	Did not show teratogenic effects in animal experiments.
Reproductive toxicity	:	Animal testing did not show any effects on fertility.

Genotoxicity in vitro

Result	:	negative (Ames test; Salmonella typhimurium) (OECD Test Guideline 471) ambiguous (Chromosome aberration test in vitro; Chinese hamster fibroblasts) (OECD Test Guideline 473)

Genotoxicity in vivo

Result	:	negative (Chromosome aberration test in vivo; Mouse) (OECD Test Guideline 474) negative (Chromosome aberration test in vivo; Mouse) (OECD Test Guideline 475) ambiguous (Effects on sperm morphology and melotic micronuclei; Mouse)

Teratogenicity

NOAEL Teratog.	:	5,7 mg/kg (Rat)Test Substance Chlorine

Reproductive toxicity

NOAEL Parent	:	5 mg/kg (Rat)(Oral)Effects on fertilityTest Substance Chlorine

Specific Target Organ Toxicity

Single exposure

Inhalation	:	Target Organs: Respiratory systemMay cause respiratory irritation.Experience with human exposure

Repeated exposure

Remarks	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Other toxic properties

Repeated dose toxicity		
NOAEL	:	50 mg/kg (Rat)(Oral; 90 Days) (OECD Test Guideline 408)

Aspiration hazard
No aspiration toxicity classification,

Further information		
Other relevant toxicity information	:	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

11.2. Information on other hazards

Data for the product

Endocrine disrupting properties		
Assessment Endocrine Disrupting Properties	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Component:	sodium hypochlorite, solution	CAS-No. 7681-52-9

Endocrine disrupting properties		
Assessment Endocrine Disrupting Properties	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1. Toxicity

Component:	sodium hypochlorite, solution	CAS-No. 7681-52-9

Acute toxicity

Fish		
LC50	:	0,06 mg/l (Salmo gairdneri; 96 h)
NOEC		0,04 mg/l (Menidia peninsulae (tidewater silverside); 96 h)

Toxicity to daphnia and other aquatic invertebrates		
EC50	:	0,141 mg/l (Daphnia magna (Water flea); 48 h)

algae		
NOEC	:	0,0021 mg/l (algae; 7 Days) Fresh water

Bacteria		
EC50	:	> 3 mg/l (activated sludge; 3 h)

Chronic toxicity		
Fish		
NOEC	:	0,04 mg/l (Menidia peninsulae (tidewater silverside); 28 d)
Aquatic invertebrates		
NOEC		0,007 mg/l (Eastern oyster (Crassostrea virginica); 15 d) Marine water

M-Factor		
M-Factor (Acute Aquat. Tox.)	:	10
M-Factor (Chron. Aquat. Tox.)	:	1

12.2. Persistence and degradability

Component:	sodium hypochlorite, solution	CAS-No. 7681-52-9
Persistence and degradability		
Persistence		

Result	:	The product can be degraded by abiotic (e.g. chemical or photolytic) processes. decomposition by hydrolysis. Half-life in fresh-water < 1 day

Biodegradability

Result	:	The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Component:	**sodium hypochlorite, solution**	**CAS-No. 7681-52-9**

Bioaccumulation

Result	:	log Kow -3,42 (20 °C)
	:	Does not bioaccumulate.

12.4. Mobility in soil

Component:	**sodium hypochlorite, solution**	**CAS-No. 7681-52-9**

12.5. Results of PBT and vPvB assessment

Data for the product

Results of PBT and vPvB assessment

Result	:	The PBT or vPvB criteria of Annex XIII to the REACH Regulation does not apply to inorganic substances.

Component:	**sodium hypochlorite, solution**	**CAS-No. 7681-52-9**

Results of PBT and vPvB assessment

Result	:	The PBT or vPvB criteria of Annex XIII to the REACH Regulation does not apply to inorganic substances.

12.6. Endocrine disrupting properties

Data for the product

Assessment Endocrine Disrupting	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article

Properties	57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Component:	**sodium hypochlorite, solution**	**CAS-No. 7681-52-9**

Assessment Endocrine Disrupting Properties	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects

Component:	**sodium hypochlorite, solution**	**CAS-No. 7681-52-9**
Additional ecological information		

Result	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	:	Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services. This product shall be disposed of or recovered in compliance with Directive 2008/98/EC on waste as lastly amended.
Contaminated packaging	:	Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
European Waste Catalogue Number	:	No waste code can be defined for this product in accordance with the Ordinance on the Movement of Waste (VeVA), as the intended use dictates the assignment. The waste code is established in consultation with a regional waste disposer, such as: Brenntag Schweizerhall AG Lohnmatte 1 4573 Lohn-Ammannsegg Switzerland Phone: +41 58 344 84 00 infolohn@brenntag.ch

SECTION 14: Transport information

14.1. UN number or ID number

1791

14.2. UN proper shipping name

ADR	:	HYPOCHLORITE SOLUTION
RID	:	HYPOCHLORITE SOLUTION
IMDG	:	HYPOCHLORITE SOLUTION (Sodium hypochlorite)

14.3. Transport hazard class(es)

ADR-Class (Labels; Classification Code; Hazard Identification Number; Tunnel restriction code)	:	8 8; C9; 80; (E)
RID-Class (Labels; Classification Code; Hazard Identification Number)	:	8 8; C9; 80
IMDG-Class (Labels; EmS)	:	8 8; F-A, S-B

14.4. Packaging group

ADR	:	II
RID	:	II
IMDG	:	II

14.5. Environmental hazards

Environmentally hazardous according to ADR	:	yes
Environmentally hazardous according to RID	:	yes
Marine Pollutant according to IMDG-Code	:	yes

14.6. Special precautions for user

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Data for the product

EU. REACH, Annex XVII, Restrictions on manufacture, placing on the market and use of certain dangerous substances, 1907/2006/EC, as amended	:	Point Nos.: , 3; Listed Point Nos.: , 75; Listed
EU. Directive 2012/18/EU on major accident hazards involving dangerous substances, Annex I, as amended	:	Qualifying quantity for the application of Lower-tier requirements: 100 tonnes; Part 1: Categories of dangerous substances; Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1
Threshold quantity MAO	:	2.000 kg (2015 determined by law SR814.012 Ann. 1 ch. 4)

Ordinance on Chemical Risik Reduction:

Annex	:	Annex 1.11: Hazardous liquids
Other regulations	:	Article 4 paragraph 1bis, Article 4 paragraph 4 of the Youth Employment Protection Ordinance (SR 822.115); articles 5 and 6 of the EAER Ordinance on Hazardous Work for Young People (SR 822.115.2): Young people undergoing basic vocational training may only work with this product (substance/preparation) if the relevant training ordinance makes provision for them to do so with a view to enabling them to achieve their training objectives and if the preconditions for the training plan have been met and the applicable age restrictions have been complied with. Young people who are not undergoing any basic vocational training are not permitted to work with this product (substance/preparation). Young people with a Federal vocational education and training (VET) Certificate or a Federal VET Diploma may carry out hazardous work with this product (substance/preparation) within the profession they have learned. Male and female employees who are under 18 years old are classed as young people. Article 4 paragraph 1bis, Article 4 paragraph 4 of the Youth Employment Protection Ordinance (SR 822.115); articles 5 and 6 of the EAER Ordinance on Hazardous Work for Young People (SR 822.115.2): Young people undergoing basic vocational training may only work with this product (substance/preparation) if the relevant training ordinance makes provision for them to do so with a view to enabling them to achieve their training objectives and if the preconditions for the training plan have been met and the applicable age restrictions have been complied with. Young people who are not undergoing any basic vocational training are not permitted to work with this product (substance/preparation). Young people with a Federal vocational education and training (VET)

Certificate or a Federal VET Diploma may carry out hazardous work with this product (substance/preparation) within the profession they have learned. Male and female employees who are under 18 years old are classed as young people.
The product belongs to group 2 according to the Swiss Chemicals Ordinance (ChemO 813.11).

Component:	**sodium hypochlorite, solution**	**CAS-No. 7681-52-9**

EU. Chemicals Subject to Export Notification: Annex 1, Part 1, Regulation 649/2012/EU on export and import of dangerous chemicals, as amended	:	; The substance/mixture does not fall under this legislation.
EU. REACH, Annex XVII, Restrictions on manufacture, placing on the market and use of certain dangerous substances, 1907/2006/EC, as amended	:	Point Nos.: , 75; Listed Point Nos.: , 3; Listed
EU. Directive 2012/18/EU on major accident hazards involving dangerous substances, Annex I, as amended	:	Qualifying quantity for the application of Lower-tier requirements: 100 tonnes; Part 1: Categories of dangerous substances; Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1 Qualifying quantity for the application of Upper-tier requirements: 200 tonnes; Part 1: Categories of dangerous substances; Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Notification status
sodium hypochlorite, solution:

Regulatory List	Notification	Notification number
EINECS	YES	231-668-3
DSL	YES	
KECI (KR)	YES	KE-31506
ENCS (JP)	YES	(1)-237
ISHL (JP)	YES	(1)-237
NZIOC	YES	HSR003698
IECSC	YES	

INSQ	YES	
ONT INV	YES	
TCSI	YES	
PICCS (PH)	YES	
TSCA	YES	
PHARM (JP)	YES	
VN INVL	YES	
TH INV	YES	55-1-05972
TH INV	YES	2828.90
AU AIICL	YES	

Component:	**sodium hydroxide**	**CAS-No. 1310-73-2**

EU. Chemicals Subject to Export Notification: Annex 1, Part 1, Regulation 649/2012/EU on export and import of dangerous chemicals, as amended : ; The substance/mixture does not fall under this legislation.

EU. REACH, Annex XVII, Restrictions on manufacture, placing on the market and use of certain dangerous substances, 1907/2006/EC, as amended : Point Nos.: , 75; Listed

EU. Directive 2012/18/EU on major accident hazards involving dangerous substances, Annex I, as amended : ; The substance/mixture does not fall under this legislation.

Notification status sodium hydroxide:

Regulatory List	Notification	Notification number
EINECS	YES	215-185-5
DSL	YES	
KECI (KR)	YES	97-1-136
KECI (KR)	YES	KE-31487
ENCS (JP)	YES	(1)-410
ISHL (JP)	YES	(1)-410
NZIOC	YES	HSR001547
INSQ	YES	

IECSC	YES	
ONT INV	YES	
TCSI	YES	
PICCS (PH)	YES	
TSCA	YES	
VN INVL	YES	
TH INV	YES	2815.11
TH INV	YES	2815.12
TH INV	YES	55-1-01354
PHARM (JP)	YES	
AU AIICL	YES	

15.2. Chemical safety assessment

No data available

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of the Notes referred to under section 3.

Abbreviations and Acronyms

AU AIICL	Australia. Industrial Chemicals Act (AIIC) List
BCF	bioconcentration factor
BOD	biochemical oxygen demand
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	carcinogenic, mutagenic or toxic to reproduction
COD	chemical oxygen demand
DNEL	derived no-effect level
DSL	Canada. Environmental Protection Act, Domestic Substances List
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ENCS (JP)	Japan. Kashin-Hou Law List
GHS	Globally Harmonized System of Classification and Labelling of Chemicals

IECSC	China. Inventory of Existing Chemical Substances
INSQ	Mexico. National Inventory of Chemical Substances
ISHL (JP)	Japan. Inventory of Industrial Safety & Health
KECI (KR)	Korea. Existing Chemicals Inventory
LC50	median lethal concentration
LOAEC	lowest observed adverse effect concentration
LOAEL	lowest observed adverse effect level
LOEL	lowest observed effect level
NDSL	Canada. Environmental Protection Act. Non-Domestic Substances List
NLP	no-longer polymer
NOAEC	no observed adverse effect concentration
NOAEL	no observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
NZIOC	New Zealand. Inventory of Chemicals
OECD	Organisation for Economic Cooperation and Development
OEL	occupational exposure limit
ONT INV	Canada. Ontario Inventory List
PBT	persistent, bioaccumulative and toxic
PHARM (JP)	Japan. Pharmacopoeia Listing
PICCS (PH)	Philippines. Inventory of Chemicals and Chemical Substances
PNEC	predicted no-effect concentration
REACH Auth. No.:	REACH Authorisation Number
REACH AuthAppC. No.	REACH Authorisation Application Consultation Number
UK REACH Auth. No.:	UK REACH Authorisation Number
UK REACH AuthAppC. No.	UK REACH Authorisation Application Consultation Number
UK REACH-Reg.No	UK REACH Registration Number
STOT	specific target organ toxicity
SPM	Synthetic Polymer Microparticles
SVHC	substance of very high concern
TCSI	Taiwan. Existing Chemicals Inventory
TH INV	Thailand. Existing Chemicals Inventory from FDA
TSCA	US. Toxic Substances Control Act
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
VN INVL	Vietnam. National Chemical Inventory
vPvB	very persistent and very bioaccumulative

Further information

Key literature references : Supplier information and data from the "Database of registered

and sources for data		substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
Methods used for product classification	:	The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
Hints for trainings	:	The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.
Other information	:	The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

|| Indicates updated section.