

**Natronbleichlauge**

Version number: 3.0  
Replaces version of: 17.08.2021 (2)

Revision: 26.06.2023

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

**1.1 Product identifier**

Trade name **Natronbleichlauge**  
Registration number (REACH) Not relevant (mixture)

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

Relevant identified uses Industrial use  
Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin.

**1.3 Details of the supplier of the safety data sheet**

FRIEDRICH SCHARR KG  
Liebknechtstraße 50  
70565 Stuttgart  
Germany

Telephone: +49 711 7868-0  
Telefax: +49 711 7868-489  
e-mail: info@scharr.de  
Website: www.scharr.de

e-mail (competent person) produktsicherheit@scharr.de

**1.4 Emergency telephone number**

Poison centre			
Country	Name	Postal code/city	Telephone
Germany	Giftinformation Freiburg	79106 Freiburg im Breisgau	+49 (0)761 19240

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

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

Hazard class	Category	Hazard class and category	Hazard statement
substance or mixture corrosive to metals	1	Met. Corr. 1	H290
skin corrosion/irritation	1B	Skin Corr. 1B	H314
hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400
hazardous to the aquatic environment - chronic hazard	2	Aquatic Chronic 2	H411

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. Spillage and fire water can cause pollution of watercourses.

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**2.2 Label elements**

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- signal word danger

- pictograms

GHS05, GHS09



- 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

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....  
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.  
P390 Absorb spillage to prevent material damage.  
P391 Collect spillage.  
P501 Dispose of contents/container to industrial combustion plant.

- supplemental hazard information

EUH031 Contact with acids liberates toxic gas.

- hazardous ingredients for labelling

sodium hypochlorite, solution ... % Cl active, sodium hydroxide

**2.3 Other hazards**

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

Not relevant (mixture)

**3.2 Mixtures**

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
sodium hypochlorite, solution ... % Cl active	CAS No 7681-52-9  EC No 231-668-3  Index No 017-011-00-1	10 - < 25	Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	

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Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
	REACH Reg. No 01-2119488154-34-xxxx			
sodium hydroxide	CAS No 1310-73-2  EC No 215-185-5  Index No 011-002-00-6  REACH Reg. No 01-2119457892-27-xxxx	1 – < 5	Met. Corr. 1 / H290 Skin Corr. 1A / H314 Eye Dam. 1 / H318	

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
sodium hypochlorite, solution ... % Cl active	-	M-factor (acute) = 10 M-factor (chronic) = 1	1.100 mg/kg	oral
sodium hydroxide	Skin Corr. 1A; H314: C ≥ 5 % Skin Corr. 1B; H314: 2 % ≤ C < 5 % Skin Irrit. 2; H315: 0,5 % ≤ C < 2 % Eye Dam. 1; H318: C ≥ 2 % Eye Irrit. 2; H319: 0,5 % ≤ C < 2 %	-	-	

For full text of abbreviations: see SECTION 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Self-protection of the first aider.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air. Call a physician immediately.

Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of propylene glycol. After contact with skin, wash immediately with plenty of water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. Call a physician immediately.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Call a physician immediately.

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

Breathing difficulties. Headache. Vertigo.

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

Subsequent observance for pneumonia and pulmonary oedema. Supervise the blood circulation.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>), Sand

Unsuitable extinguishing media

Water jet

### 5.2 Special hazards arising from the substance or mixture

Danger of bursting container. Substance or mixture corrosive to metals.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Hydrogen chloride (HCl), Chlorine (Cl<sub>2</sub>)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Ventilate affected area. Avoidance of ignition sources.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Provision of sufficient ventilation.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

### 6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

- handling of incompatible substances or mixtures

Do not mix with acids.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

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

Managing of associated risks

- corrosive conditions

Store in corrosive resistant container with a resistant inner liner.

- incompatible substances or mixtures

- do not mix with

Acids

Shelf-life

Protect against external exposure, such as

Heat, Frost, Light

Do not keep the container sealed.

- Lagerklasse (storage class according to TRGS 510, 8 B (non-combustible corrosive materials (except Germany) only corrosive to metals))

- packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

**7.3 Specific end use(s)**

See section 16 for a general overview.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

Occupational exposure limit values (Workplace Exposure Limits)								
Country	Name of substance	CAS No	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Source
AT	sodium hydroxide	1310-73-2	MAK		2			GKV
CH	sodium hydroxide	1310-73-2	MAK		2		2	SUVA

Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute peri-

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Notation

TWA od (unless otherwise specified)  
time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours  
time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
sodium hypochlorite, solution ... % Cl active	7681-52-9	DNEL	1,55 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
sodium hypochlorite, solution ... % Cl active	7681-52-9	DNEL	3,1 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic effects
sodium hypochlorite, solution ... % Cl active	7681-52-9	DNEL	1,55 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
sodium hypochlorite, solution ... % Cl active	7681-52-9	DNEL	3,1 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects
sodium hydroxide	1310-73-2	DNEL	1 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
sodium hypochlorite, solution ... % Cl active	7681-52-9	PNEC	0,21 µg/l	aquatic organisms	freshwater	short-term (single instance)
sodium hypochlorite, solution ... % Cl active	7681-52-9	PNEC	0,042 µg/l	aquatic organisms	marine water	short-term (single instance)
sodium hypochlorite, solution ... % Cl active	7681-52-9	PNEC	4,69 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)

**8.2 Exposure controls**

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

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- hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

- type of material

PVC: polyvinyl chloride, CR: chloroprene (chlorobutadiene) rubber, NBR: acrylonitrile-butadiene rubber, IIR: isobutene-isoprene (butyl) rubber, FKM: fluoro-elastomer

- material thickness

PVC (Polyvinylchlorid). (0,7 mm), Nitrilkautschuk (0,4 mm), Chloropren (0,5 mm), Butylkautschuk (0,7 mm), Fluorkautschuk (0,7 mm).

- breakthrough times of the glove material

0,4 mm

- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Adequate particulate filter (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

**SECTION 9: Physical and chemical properties**

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

Physical state	liquid
Colour	light yellow
Odour	stinging
Melting point/freezing point	20 °C
Boiling point or initial boiling point and boiling range	96 – 99 °C
Evaporation rate	not determined
Flammability	non-combustible
Lower and upper explosion limit	not determined
Flash point	not determined
Auto-ignition temperature	not determined
pH (value)	12 (in aqueous solution: 160 g/l, 20 °C) (base)
Kinematic viscosity	3,252 mm <sup>2</sup> /s at 20 °C

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### Solubility(ies)

Water solubility	miscible in any proportion
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### Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available
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Vapour pressure	2,5 kPa at 20 °C
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### Density and/or relative density

Density	1,21 - 1,23 g/cm <sup>3</sup> at 20 °C
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Particle characteristics	not relevant (liquid)
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## 9.2 Other information

Information with regard to physical hazard classes	there is no additional information
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### Other safety characteristics

Miscibility	Completely miscible with water.
Solid content	1 %

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". Substance or mixture corrosive to metals.

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture.

#### Dangerous/dangerous reactions with:

Do not mix with acids

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

Zinc, Acids, Peroxides, Copper, Aluminium, Ammonia (NH<sub>3</sub>)

#### Release of flammable materials with:

Light metals (due to the release of hydrogen in an acid/alkaline medium)

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Release of toxic materials with:

Acids

**10.6 Hazardous decomposition products**

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

**SECTION 11: Toxicological information**

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

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

**Classification according to GHS (1272/2008/EC, CLP)**

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity			
Exposure route	Endpoint	Value	Species
oral	LD50	>5.000 mg/kg	rat
dermal	LD50	>5.000 mg/kg	rabbit

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
sodium hypochlorite, solution ... % Cl active	7681-52-9	oral	1.100 mg/kg

Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
sodium hypochlorite, solution ... % Cl active	7681-52-9	oral	LD50	1.100 mg/kg	rat
sodium hypochlorite, solution ... % Cl active	7681-52-9	dermal	LD50	>20.000 mg/kg	rabbit

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

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**Carcinogenicity**

Shall not be classified as carcinogenic.

**Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

**Specific target organ toxicity - single exposure**

Shall not be classified as a specific target organ toxicant (single exposure).

**Specific target organ toxicity - repeated exposure**

Shall not be classified as a specific target organ toxicant (repeated exposure).

**Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

**11.2 Information on other hazards**

There is no additional information.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Acc. to 1272/2008/EC: Very toxic to aquatic life with long lasting effects.

Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV): WGK 2, obviously hazardous to water (Germany)

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
sodium hypochlorite, solution ... % Cl active	7681-52-9	EC50	141 µg/l	aquatic invertebrates	48 h
sodium hypochlorite, solution ... % Cl active	7681-52-9	ErC50	0,036 mg/l	algae	72 h
sodium hydroxide	1310-73-2	LC50	45,4 mg/l	rainbow trout (Oncorhynchus mykiss)	96 h
sodium hydroxide	1310-73-2	EC50	40,4 mg/l	aquatic invertebrates	48 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
sodium hypochlorite, solution ... % Cl active	7681-52-9	LC50	0,05 mg/l	fish	120 h
sodium hypochlorite, solution ... % Cl active	7681-52-9	EC50	563 mg/l	microorganisms	3 h

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**12.2 Persistence and degradability**

Biodegradation

Data are not available.

**12.3 Bioaccumulative potential**

Data are not available.

Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
sodium hypochlorite, solution ... % Cl active	7681-52-9		-3,42 (pH value: 12,5, 20 °C)	

**12.4 Mobility in soil**

Data are not available.

**12.5 Results of PBT and vPvB assessment**According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .**12.6 Endocrine disrupting properties**Does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .**12.7 Other adverse effects**

Data are not available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Waste treatment-relevant information

Recycling/reclamation of other inorganic materials.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

**Relevant provisions relating to waste**

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**Remarks**

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

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**SECTION 14: Transport information**

**14.1 UN number or ID number**

ADR/RID/ADN	UN 1791
IMDG-Code	UN 1791
ICAO-TI	UN 1791

**14.2 UN proper shipping name**

ADR/RID/ADN	HYPOCHLORITE SOLUTION
IMDG-Code	HYPOCHLORITE SOLUTION
ICAO-TI	Hypochlorite solution

**14.3 Transport hazard class(es)**

ADR/RID/ADN	8
IMDG-Code	8
ICAO-TI	8

**14.4 Packing group**

ADR/RID/ADN	II
IMDG-Code	II
ICAO-TI	II

**14.5 Environmental hazards**

	hazardous to the aquatic environment
Environmentally hazardous substance (aquatic environment)	sodium hypochlorite, solution ... % Cl active

**14.6 Special precautions for user**

Provisions for dangerous goods (ADR) should be complied within the premises.

**14.7 Maritime transport in bulk according to IMO instruments**

The cargo is not intended to be carried in bulk.

**Information for each of the UN Model Regulations**

**Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - additional information**

Classification code	C9
Danger label(s)	8, fish and tree



Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	521
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
Transport category (TC)	2

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Tunnel restriction code (TRC)	E
Hazard identification No	80
<b>International Maritime Dangerous Goods Code (IMDG) - additional information</b>	
Marine pollutant	yes (P) (hazardous to the aquatic environment)
Danger label(s)	8, fish and tree
	
Special provisions (SP)	-
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-A, S-B
Stowage category	B
Segregation group	8 - Hypochlorites
<b>International Civil Aviation Organization (ICAO-IATA/DGR) - additional information</b>	
Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	8
	
Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L

**SECTION 15: Regulatory information**

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

**Relevant provisions of the European Union (EU)**

**List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list**

none of the ingredients are listed

**Seveso Directive**

2012/18/EU (Seveso III)

No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes
E1	environmental hazards (hazardous to the aquatic environment, cat. 1)	100	200	56)

Notation

56) hazardous to the Aquatic Environment in category Acute 1 or Chronic 1

**Industrial Emissions Directive (IED)**

VOC content	0 %
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**Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)**

none of the ingredients are listed

**Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**

none of the ingredients are listed

**Water Framework Directive (WFD)**

List of pollutants (WFD)			
Name of substance	CAS No	Listed in	Remarks
sodium hydroxide		a)	
sodium hypochlorite, solution ... % Cl active		a)	

Legend

A) Indicative list of the main pollutants

**Regulation on persistent organic pollutants (POP)**

None of the ingredients are listed.

**National regulations (Austria)**

Ordinance on combustible liquids (VbF) not assigned (flash point higher than 55 °C, water miscible)

**National regulations (Germany)**

**Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV)**

Wassergefährdungsklasse, WGK 2 obviously hazardous to water  
(water hazard class)

**Technical instructions on air quality control (Germany)**

Number	Group of substances	Class	Conc.	Mass flow	Mass concentration	Notation
	not assigned		≥ 25 wt%			

**National regulations Switzerland**

**Ordinance on the incentive tax on volatile organic compounds (VOCV)**

The product is exempt from the tax. Product in which the VOC content does not exceed 3 per cent (% by weight).

**National inventories**

Country	Inventory	Status
AU	AIIC	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed

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Country	Inventory	Status
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

**Legend**

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

**15.2 Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

**Indication of changes (revised safety data sheet)**

Section	Former entry (text/value)	Actual entry (text/value)
2.3	Other hazards: of no significance	Other hazards
2.3		Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$ .
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$ .
3.2		Description of the mixture: change in the listing (table)
3.2		Description of the mixture: change in the listing (table)
8.2		Breakthrough times of the glove material: 0,4 mm
11.1		Acute toxicity of components of the mixture: change in the listing (table)
12.2	Persistence and degradability: Data are not available.	Persistence and degradability

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Replaces version of: 17.08.2021 (2)

Revision: 26.06.2023

Section	Former entry (text/value)	Actual entry (text/value)
12.5	Results of PBT and vPvB assessment: Data are not available.	Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$ .
12.6	Endocrine disrupting properties: None of the ingredients are listed.	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$ .
14.7	Marine pollutant: yes (P) (hazardous to the aquatic environment) (sodium hypochlorite, solution ... % Cl active)	Marine pollutant: yes (P) (hazardous to the aquatic environment)

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	$\equiv$ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye

## Safety Data Sheet

acc. to Regulation (EC) No. 1907/2006 (REACH),

amended by 2020/878/EU

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Abbr.	Descriptions of used abbreviations
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
GKV	Grenzwerteverordnung
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
Met. Corr.	Substance or mixture corrosive to metals
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
SUVA	Grenzwerte am Arbeitsplatz, Suva
SVHC	Substance of Very High Concern
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

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**Key literature references and sources for data**

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

**Classification procedure**

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

**List of relevant phrases (code and full text as stated in section 2 and 3)**

Code	Text
H290	May be corrosive to metals.
H302	Harmful if swallowed.
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.
H411	Toxic to aquatic life with long lasting effects.

**Disclaimer**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.