

Safety data sheet Safety data sheet

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



RBS® pF T , Laboratory cleaning agent

article number: **9243**
Version: **3.0 en**
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Version: (2)

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

1.1 Product identifier

Identification of the substance **RBS® pF T , Laboratory cleaning agent**
Article number 9243

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

Relevant identified uses: Laboratory chemical
Laboratory and analytical use
Cleaning agent

Uses advised against: Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin. Do not use for private purposes (household). Food, drink and animal feedingstuffs.

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

Telephone:+49 (0) 721 - 56 06 0
Telefax: +49 (0) 721 - 56 06 149
e-mail: sicherheit@carlroth.de
Website: www.carlroth.de

Competent person responsible for the safety data sheet: Department Health, Safety and Environment

e-mail (competent person): **sicherheit@carlroth.de**

1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
2.16	Substance or mixture corrosive to metals	1	Met. Corr. 1	H290
3.2	Skin corrosion/irritation	1B	Skin Corr. 1B	H314
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
4.1C	Hazardous to the aquatic environment - chronic hazard	3	Aquatic Chronic 3	H412

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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.

2.2 Label elements

Labelling

Signal word

Danger

Pictograms

GHS05



Hazard statements

H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H412	Harmful to aquatic life with long lasting effects

Precautionary statements

Precautionary statements - prevention

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

Precautionary statements - response

P302+P352	IF ON SKIN: Wash with plenty of water
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332+P313	If skin irritation occurs: Get medical advice/attention
P337+P313	If eye irritation persists: Get medical advice/attention

Hazardous ingredients for labelling:

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

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 (ED) in a concentration of $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

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Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	CAS No 51981-21-6 EC No 257-573-7	< 5	Acute Tox. 4 / H332		
Sodium hydroxide	CAS No 1310-73-2 EC No 215-185-5 Index No 011-002-00-6	< 5	Met. Corr. 1 / H290 Skin Corr. 1A / H314 Eye Dam. 1 / H318		GHS-HC
Sodium carbonate	CAS No 497-19-8 EC No 207-838-8 Index No 011-005-00-2	< 5	Eye Irrit. 2 / H319		GHS-HC
Sodium hypochlorite, solution ... % Cl active	CAS No 7681-52-9 EC No 231-668-3 Index No 017-011-00-1	< 5	Skin Corr. 1B / H314 Eye Dam. 1 / H318 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410		B(a) GHS-HC

Notes

B(a): The classification refers to an aqueous solution

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

Name of substance	Identifier	Specific Conc. Limits	M-Factors	ATE	Exposure route
Sodium hydroxide	CAS No 1310-73-2 EC No 215-185-5	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 %	-	-	
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	CAS No 51981-21-6 EC No 257-573-7	-	-	>4,2 mg/l/4h	inhalation: dust/ mist
Sodium hypochlorite, solution ... % Cl active	CAS No 7681-52-9 EC No 231-668-3	-	M-factor (acute) = 10 M-factor (chronic) = 1	1.100 mg/kg	oral

For full text of abbreviations: see SECTION 16

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SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off immediately all contaminated clothing.

Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

Following eye contact

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

Following ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

4.2 Most important symptoms and effects, both acute and delayed

Corrosion, Risk of blindness, Gastric perforation, Risk of serious damage to eyes

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings!
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Non-combustible.

Hazardous combustion products

In case of fire may be liberated: Nitrogen oxides (NO_x)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

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

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle and open container with care. Clear contaminated areas thoroughly.

Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice:

Specific designs for storage rooms or vessels

Do not keep the container sealed.

Recommended storage temperature: 15 – 25 °C

7.3 Specific end use(s)

No information available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
GB	sodium hydroxide	1310-73-2	WEL				2				EH40/2005

Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA 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

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate	51981-21-6	DNEL	7,3 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate	51981-21-6	DNEL	15.000 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Sodium hypochlorite, solution ... % Cl active	7681-52-9	DNEL	1,55 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Sodium hypochlorite, solution ... % Cl active	7681-52-9	DNEL	3,1 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
Sodium hypochlorite, solution ... % Cl active	7681-52-9	DNEL	1,55 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
Sodium hypochlorite, solution ... % Cl active	7681-52-9	DNEL	3,1 mg/m ³	human, inhalatory	worker (industry)	acute - local effects

Relevant PNECs of components

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate	51981-21-6	PNEC	67 mg/kg	aquatic organisms	water	short-term (single instance)

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Relevant PNECs of components						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	PNEC	9,45 mg/l	aquatic organisms	freshwater	short-term (single instance)
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	PNEC	0,945 mg/l	aquatic organisms	marine water	short-term (single instance)
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	PNEC	41,2 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	PNEC	0,5 mg/kg	terrestrial organisms	soil	short-term (single instance)
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

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection. Wear face protection.

Skin protection



• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. 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. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

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- **type of material**

NBR (Nitrile rubber)

- **material thickness**

0,3 mm

- **breakthrough times of the glove material**

>480 minutes (permeation: level 6)

- **other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: ABEK (combined filters against gases and vapours, colour code: Brown/Grey/Yellow/Green).

Environmental exposure controls

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	yellow
Odour	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	not determined
Flammability	non-combustible
Lower and upper explosion limit	not determined
Flash point	not determined
Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	13,1 (20 °C)
Kinematic viscosity	2,71 mm ² /s at 20 °C
Dynamic viscosity	2,9 mPa s
<u>Solubility(ies)</u>	
Water solubility	miscible in any proportion
<u>Partition coefficient</u>	
Partition coefficient n-octanol/water (log value):	not relevant (inorganic)

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Vapour pressure	23 hPa at 20 °C
<u>Density and/or relative density</u>	
Density	1,07 g/cm ³ at 20 °C
Relative vapour density	information on this property is not available
Particle characteristics	not relevant (liquid)
<u>Other safety parameters</u>	
Oxidising properties	none
9.2 Other information	
Information with regard to physical hazard classes:	
Corrosive to metals	category 1: corrosive to metals
Other safety characteristics:	
Miscibility	completely miscible with water

SECTION 10: Stability and reactivity

10.1 Reactivity

Substance or mixture corrosive to metals.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Violent reaction with: Strong acid

10.4 Conditions to avoid

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

10.5 Incompatible materials

different metals

Release of flammable materials with

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

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

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 acc. to GHS

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components			
Name of substance	CAS No	Exposure route	ATE
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	inhalation: dust/mist	>4,2 mg/l/4h
Sodium hypochlorite, solution ... % Cl active	7681-52-9	oral	1.100 mg/kg

Acute toxicity of components					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Sodium carbonate	497-19-8	oral	LD50	2.800 mg/kg	rat
Sodium carbonate	497-19-8	dermal	LD50	>2.000 mg/kg	rabbit
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	oral	LD50	>2.000 mg/kg	rat
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	inhalation: dust/mist	LC50	>4,2 mg/l/4h	rat
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	dermal	LD50	>2.000 mg/kg	rat
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.

Carcinogenicity

Shall not be classified as carcinogenic.

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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.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects)

• If in eyes

causes burns, Causes serious eye damage, risk of blindness

• If inhaled

Data are not available.

• If on skin

causes severe burns, causes poorly healing wounds

• Other information

none

11.2 Endocrine disrupting properties

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

11.3 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Harmful to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Sodium hydroxide	1310-73-2	LC50	<180 mg/l	fish	96 h
Sodium hydroxide	1310-73-2	EC50	40,4 mg/l	aquatic invertebrates	48 h
Sodium carbonate	497-19-8	LC50	300 mg/l	fish	96 h
Sodium carbonate	497-19-8	EC50	227 mg/l	aquatic invertebrates	48 h
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	LC50	>100 mg/l	fish	96 h
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	EC50	>100 mg/l	aquatic invertebrates	48 h

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Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Sodium hypochlorite, solution ... % Cl active	7681-52-9	EC50	35 µg/l	aquatic invertebrates	48 h
Sodium hypochlorite, solution ... % Cl active	7681-52-9	ErC50	0,036 mg/l	algae	72 h

Aquatic toxicity (chronic) of components

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Sodium hydroxide	1310-73-2	EC50	22 mg/l	microorganisms	15 min
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	EC50	396,2 mg/l	aquatic invertebrates	21 d

12.2 Persistence and degradability

Degradability of components

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	oxygen depletion	96 %	28 d		ECHA
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	carbon dioxide generation	32 %	28 d		ECHA
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6	DOC removal	23 %	28 d		ECHA

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Tetrasodium N,N-bis(carboxylatomethyl)-L-glutamate	51981-21-6		<0 (pH value: 7, 27 °C)	
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

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

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12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) 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



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

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. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

13.2 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.

Properties of waste which render it hazardous

HP 8 corrosive

HP 14 ecotoxic

13.3 Remarks

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

SECTION 14: Transport information

14.1 UN number or ID number

ADRRID	UN 1824
IMDG-Code	UN 1824
ICAO-TI	UN 1824

14.2 UN proper shipping name

ADRRID	SODIUM HYDROXIDE SOLUTION
IMDG-Code	SODIUM HYDROXIDE SOLUTION
ICAO-TI	Sodium hydroxide solution

14.3 Transport hazard class(es)

ADRRID	8
IMDG-Code	8

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ICAO-TI	8
14.4 Packing group	
ADRRID	III
IMDG-Code	III
ICAO-TI	III
14.5 Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations

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.

14.8 Information for each of the UN Model Regulations

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)Additional information

Proper shipping name	SODIUM HYDROXIDE SOLUTION
Particulars in the transport document	UN1824, SODIUM HYDROXIDE SOLUTION, 8, III, (E)
Classification code	C5
Danger label(s)	8
	
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
Transport category (TC)	3
Tunnel restriction code (TRC)	E
Hazard identification No	80
Emergency Action Code	2R

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)Additional information

Classification code	C5
Danger label(s)	8
	
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
Transport category (TC)	3
Hazard identification No	80

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International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name	SODIUM HYDROXIDE SOLUTION
Particulars in the shipper's declaration	UN1824, SODIUM HYDROXIDE SOLUTION, 8, III
Marine pollutant	-
Danger label(s)	8



Special provisions (SP)	223
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-A, S-B
Stowage category	A
Segregation group	18 - Alkalis

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name	Sodium hydroxide solution
Particulars in the shipper's declaration	UN1824, Sodium hydroxide solution, 8, III
Danger label(s)	8



Special provisions (SP)	A3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	1 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)

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
	not assigned		

Deco-Paint Directive

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VOC content	0 %
VOC content (Water content was discounted)	0 g/l

Industrial Emissions Directive (IED)

VOC content	<5 %
VOC content (Water content was discounted)	482,9 g/l

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	Name acc. to inventory	CAS No	Listed in	Remarks
Tetrasodium N,N-bis(carboxylato-methyl)-L-glutamate	Metals and their compounds		a)	
Sodium hydroxide	Metals and their compounds		a)	
Sodium carbonate	Metals and their compounds		a)	
Sodium hypochlorite, solution ... % Cl active	Metals and their compounds		a)	

Legend

a) Indicative list of the main pollutants

Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

Regulation on drug precursors

none of the ingredients are listed

Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

National regulations(GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

none of the ingredients are listed

Restrictions according to GB REACH, Annex 17

none of the ingredients are listed

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Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	not 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
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
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)	Safety-relevant
2.1		Classification acc. to GHS: change in the listing (table)	yes
2.2		Pictograms: change in the listing (table)	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.2		Hazard statements: change in the listing (table)	yes
14.5	Environmental hazards: hazardous to the aquatic environment	Environmental hazards: non-environmentally hazardous acc. to the dangerous goods regulations	yes
14.5	Environmentally hazardous substance (aquatic environment): Sodium hypochlorite, solution ... % Cl active		yes
14.8	Particulars in the transport document: UN1824, SODIUM HYDROXIDE SOLUTION, 8, III, (E), environmentally hazardous	Particulars in the transport document: UN1824, SODIUM HYDROXIDE SOLUTION, 8, III, (E)	yes
14.8	Danger label(s): 8, "Fish and tree"	Danger label(s): 8	yes
14.8		Danger label(s): change in the listing (table)	yes
14.8	Environmental hazards: yes (hazardous to the aquatic environment)		yes
14.8	Danger label(s): 8 Fish and tree	Danger label(s): 8	yes
14.8		Danger label(s): change in the listing (table)	yes
14.8	Environmental hazards: Yes Hazardous to water		yes
14.8	Particulars in the shipper's declaration: UN1824, SODIUM HYDROXIDE SOLUTION, 8, III, MARINE POLLUTANT	Particulars in the shipper's declaration: UN1824, SODIUM HYDROXIDE SOLUTION, 8, III	yes
14.8	Marine pollutant: yes (hazardous to the aquatic environment)	Marine pollutant: -	yes
14.8	Danger label(s): 8, "Fish and tree"	Danger label(s): 8	yes
14.8		Danger label(s): change in the listing (table)	yes
14.8	Environmental hazards: yes (hazardous to the aquatic environment)		yes
15.1		2012/18/EU (Seveso III): change in the listing (table)	yes
15.1	VOC content (Water content was discounted): 388,8 g/l	VOC content (Water content was discounted): 482,9 g/l	yes

Abbreviations and acronyms

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Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
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)
Ceiling-C	Ceiling value
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)
ED	Endocrine disruptor
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ 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
Eye Irrit.	Irritant to the eye
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
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

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Abbr.	Descriptions of used abbreviations
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
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 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.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.

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Code	Text
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful 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.