

Safety Data Sheet

Material: NATRONLAUGE 50%

Version: 1.1 (INTL-GHS)

Date of print: 03.12.2020

Date of last alteration: 20.11.2019

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

1.1 Product identifier

Commercial product name: NATRONLAUGE 50%

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

Use of substance / preparation:
Industrial.
base chemical

1.3 Details of the supplier of the safety data sheet

Manufacturer/distributor: Vinnolit GmbH & Co. KG
Street/POB-No.: Carl-Zeiss-Ring 25
Postal code/city: 85737 Ismaning
Country: Germany
Telephone: +49 89 96-103-0
Telefax: +49 89 96-103-103

Information about the Safety Data Sheet: Telephone +49 8679 7-5680
eMail sdb@vinnolit.com

1.4 Emergency telephone number

Emergency Information (German):	Plant fire brigade	+49 8677 83-2222
Emergency Information (internat.):	National Response Center	+49 621 60-43333
Emergency Information:	Caribbean, Central America and South America except Chile and Colombia	+1 646 844 7309
Emergency Information:	Chile	+56 2 2582 9336
Emergency Information:	Colombia	+57 1 508 7337
Emergency Information:	East Asia and Southeast Asia except Sri Lanka, Bangladesh and Pakistan	+65 3158 1074
Emergency Information:	Sri Lanka	+65 3158 1195
Emergency Information:	Bangladesh	+65 3158 1200
Emergency Information:	Pakistan	+65 3158 1329

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Hazard class	Hazard category	Route of exposure
Corrosive to metals	Category 1	
Serious eye damage/eye irritation	Category 1	
Skin corrosion/irritation	Category 1A	

2.2 Label elements

Pictogram(s):



Signal Word: Danger

H-Code	Hazard Statements
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

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P-Code	Precautionary Statements
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection.
P234	Keep only in original packaging.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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.
P310	Immediately call a POISON CENTER/doctor.
P390	Absorb spillage to prevent material damage.
P406	Store in a corrosion resistant container with a resistant inner liner.
P405	Store locked up.
P501	Dispose of contents/container to waste disposal.
Hazard ingredients (labelling):	
Sodium hydroxide	

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

3.2.1 Chemical characteristics

Sodium hydroxide + water

3.2.2 Hazardous ingredients

EC-No.	CAS No.	Substance	Content %
215-185-5	1310-73-2	Sodium hydroxide	50

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57) in amounts above $\geq 0.1\%$.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Take persons to a safe place. Observe self-protection for first aid. Always seek medical advice in the event of contact with this substance.

After contact with the eyes:

Rinse immediately with plenty of water for 10-15 minutes. Keep eyelids well open to rinse the whole eye surface and eyelids with water. Seek medical advice immediately and clearly identify substance. Continue to bathe eyes during transport to medical practitioner.

After contact with the skin:

Remove contaminated clothes at once. Wash off with plenty of water or water and soap immediately for 10-15 minutes. In serious cases, use emergency shower immediately. Seek medical advice immediately and clearly identify substance.

After inhalation:

Keep the patient calm. If unconscious place in stable sideways position. Protect against loss of body heat. If breathing stops, administer artificial respiration. Seek medical advice immediately and clearly identify substance.

After swallowing:

If conscious, give several small portions of water to drink. Do not induce vomiting. Seek medical advice immediately and clearly identify substance.

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4.2 Most important symptoms and effects, both acute and delayed

Any relevant information can be found in other parts of this section.

4.3 Indication of any immediate medical attention and special treatment needed

After inhalation: treat as early as possible using cortisone spray. Medical checks necessary up to a latency period of at least 24 hours. In the event of 1st degree burns use corticoid-externa. In the case of 2nd degree burns, use symptomatic treatment. Further toxicology information in section 11 must be observed.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Use extinguishing measures appropriate to the source of fire.

Extinguishing media which must not be used for safety reasons:

According to our present state of knowledge: none known

5.2 Special hazards arising from the substance or mixture

corrosive substances . Ambient fire may lead to hazardous fumes.

5.3 Advice for firefighters

Special protective equipment for fire fighting:

Use respiratory protection independent of recirculated air. See section 8.

General information:

Product does not burn. Use extinguishing measures appropriate to the source of the fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment (see section 8). Avoid contact with eyes and skin. Avoid inhaling mists and vapours. Keep unprotected persons away.

6.2 Environmental precautions

Prevent material from entering sewers or surface waters. Contain any fluid that runs out using suitable material (e.g. earth).

6.3 Methods and material for containment and cleaning up

Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Dilute with plenty of water and dispose of according to local/state/federal regulations.

6.4 Reference to other sections

Relevant information in other sections has to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13).

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions for safe handling:

Keep away from incompatible substances in accordance with section 10. Spilled substance increases risk of slipping.

Precautions against fire and explosion:

In the event of contact with light metals, hydrogen gas may form (risk of explosion!).

7.2 Conditions for safe storage, including any incompatibilities

Conditions for storage rooms and vessels:

Do not store in containers made of aluminum or other light metals. Do not store in containers coated with zinc.

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Advice for storage of incompatible materials:

Avoid contact with acids.

Further information for storage:

Keep container tightly closed.

Minimum temperature allowed during storage and transportation: 15 °C

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Maximum airborne concentrations at the workplace:

CAS No.	Substance	Type	mg/m ³	ppm	Dust fract.	Fibre/m ³
-	Aerosol - inhalable fraction		10,0			

The aerosol limit specified is a recommendation should aerosol be formed during processing.

8.2 Exposure controls

8.2.1 Exposure in the work place limited and controlled

General protection and hygiene measures:

Avoid contact with eyes and skin. Do not breathe vapours. Do not eat or drink when handling. Wash hands at the end of work and before eating. Keep working clothes separately.

Personal protection equipment:

Respiratory protection

If inhalative exposure above the occupational exposure limit cannot be excluded, adequate respiratory protection equipment must be used. Suitable respiratory equipment: Respirator with a full face mask, according to acknowledged standards such as EN 136. Recommended Filter type: Gas filter type ABEK (certain inorganic, organic and acidic gases and vapors; ammonia/amines), according to acknowledged standards such as EN 14387

In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Suitable respiratory equipment: Respirator with a full face mask, according to acknowledged standards such as EN 136.

Recommended Filter type: Combined filter type ABEK-P2 (certain inorganic, organic and acidic gases and vapors; ammonia/amines; particles), according to acknowledged standards such as EN 14387

For long or intense exposure, use respiratory protective equipment. Suitable respiratory equipment: Positive pressure self contained breathing apparatus, according to acknowledged standards such as EN 137.

Observe the equipment manufacturer's information and wear time limits for respirators.

Eye protection

tight fitting protective goggles .

Hand protection

Gloves are required at all times when handling the material.

Recommended glove types: Protective gloves made of nitrile rubber

thickness of the material: > 0,1 mm

Breakthrough time: > 480 min

Recommended glove types: Protective gloves made of butyl rubber

thickness of the material: > 0,3 mm

Breakthrough time: > 480 min

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Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Note that, due to the numerous external influences (such as temperature), a chemically resistant protective glove in daily use may have a service life that is considerably shorter than the measured break through time.

Skin protection

If handled uncovered: Chemical protective clothing, full-body liquid-tight protection if necessary. Please observe the instructions regarding permeability time which are provided by the supplier.

8.2.2 Exposure to the environment limited and controlled

Prevent material from entering surface waters and soil. Do not introduce large amounts into purification plants. Normally neutralisation is required before waste water is introduced into purification plants.

8.3 Further information for system design and engineering measures

Observe information in section 7.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property:	Value:	Method:
Appearance		
Physical state	liquid	
Colour	colourless	
Odour		
Odour	odourless	
Odour limit		
Odour limit	no data available	
pH-Value		
pH-Value	> 14 at 20 °C	
Melting point/freezing point		
Melting point / melting range	12 °C	
Initial boiling point and boiling range		
Boiling point / boiling range	143 °C at 1013 hPa	
Flash point		
Flash point	not applicable	
Evaporation rate		
Evaporation rate	no data available	
Upper/lower flammability or explosive limits		
Lower explosion limit (LEL)	not applicable	
Upper explosion limit (UEL)	not applicable	
Vapour pressure		
Vapour pressure	ca. 18,7 hPa / 60 °C	(-)
Vapour pressure	13,33 hPa / 50 °C	(-)
Vapour pressure	1,19 hPa / 20 °C	(-)
Solubility(ies)		
Water solubility / miscibility	completely miscible	
Vapour density		
Relative gas/vapour density	No data known.	
Relative Density		
Relative Density	1,525 (20 °C)	(DIN 51757)
	(Water / 4 °C = 1,00)	
Density	1,525 g/cm ³ (20 °C)	(DIN 51757)
Partition coefficient: n-octanol/water		
Partition coefficient: n-octanol/water	No data known.	
Auto-ignition temperature		
Ignition temperature	not applicable	
Auto-ignition temperature	not applicable	

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Decomposition temperature

Thermal decomposition: not applicable

Viscosity

Viscosity (dynamic): 79 mPa.s at 20 °C

Explosive properties

Explosive properties: not applicable

Oxidizing properties

Oxidizing properties.....: no

Molecular mass

Molecular mass: 40

9.2 Other information

No data available.

SECTION 10: Stability and reactivity

10.1 – 10.3 Reactivity; Chemical stability; Possibility of hazardous reactions

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

Relevant information can possibly be found in other parts of this section.

10.4 Conditions to avoid

Keep away from incompatible substances.

10.5 Incompatible materials

Reacts with: water , acids . Reaction causes the formation of: heat . Reacts with: light metals , light metal alloys , zinc and tin .

Reaction causes the formation of: hydrogen .

10.6 Hazardous decomposition products

If stored and handled properly: none known .

SECTION 11: Toxicological information

11.1 Information on toxicological effects

11.1.1 Acute toxicity

Assessment:

Based on the corrosive properties an examination of this toxicological endpoint is not necessary.

Acute toxicity estimate (ATE):

ATE_{mix} (Oral): > 2000 mg/kg

11.1.2 Skin corrosion/irritation

Assessment:

After contact to the skin strong corrosion of the skin are to be expected.

Product details:

Result/Effect	Species/Test system	Source
severe burns	Rabbit	literature

11.1.3 Serious eye damage / eye irritation

Assessment:

Based on the corrosive properties an examination of this toxicological endpoint is not necessary.

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11.1.4 Respiratory or skin sensitization

Assessment:

Based on the available data a sensitization reaction is not expected from this product.

11.1.5 Germ cell mutagenicity

Assessment:

According to our present state of knowledge not mutagenic.

Product details:

Result/Effect	Species/Test system	Source
negative	mutation assay (in vitro) bacterial cells	literature OECD 471
inconclusive	mutation assay (in vitro) mammalian cells	literature OECD 476
negative	micro nucleus assay (in vivo)	literature OECD 474

11.1.6 Carcinogenicity

Assessment:

For this endpoint no toxicological test data is available for the whole product.

11.1.7 Reproductive toxicity

Assessment:

For this endpoint no toxicological test data is available for the whole product.

11.1.8 Specific target organ toxicity (single exposure)

Assessment:

For this endpoint no toxicological test data is available for the whole product.

11.1.9 Specific target organ toxicity (repeated exposure)

Assessment:

For this endpoint no toxicological test data is available for the whole product.

11.1.10 Aspiration hazard

Assessment:

For this endpoint no toxicological test data is available for the whole product.

11.1.11 Further toxicological information

Danger of blindness by eye contact!

SECTION 12: Ecological information

12.1 Toxicity

Assessment:

Harmful effect through pH-shift.

Product details:

Result/Effect	Species/Test system	Source
EC50: 40,4 mg/l	Ceriodaphnia dubia (48 h)	ECHA

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12.2 Persistence and degradability

Assessment:

Not applicable.

12.3 Bioaccumulative potential

Assessment:

Bioaccumulation is not expected to occur. No adverse effects expected.

12.4 Mobility in soil

Assessment:

No data known.

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

none known

SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 Material

Recommendation:

Ensure special chem./phys. treatment after discussion with the supplier. Observe local/state/federal regulations.

13.1.2 Uncleaned packaging

Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

Recommended cleaning agent:

water

SECTION 14: Transport information

14.1 – 14.4 UN number; UN proper shipping name; Transport hazard class(es); Packing group

Road ADR:

Valuation: Dangerous Goods
 14.1 UN no: 1824
 14.2 Proper Shipping Name: Natriumhydroxidlösung
 14.3 Class: 8
 14.4 Packaging Group: II

Railway RID:

Valuation: Dangerous Goods
 14.1 UN no: 1824
 14.2 Proper Shipping Name: Natriumhydroxidlösung
 14.3 Class: 8
 14.4 Packaging Group: II

Transport by sea IMDG-Code:

Valuation: Dangerous Goods
 14.1 UN no: 1824
 14.2 Proper Shipping Name: Sodium hydroxide solution
 14.3 Class: 8

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14.4 Packaging Group: II

Air transport ICAO-TI/IATA-DGR:

Valuation: Dangerous Goods

14.1 UN no.: 1824

14.2 Proper Shipping Name: Sodium hydroxide solution

14.3 Class: 8

14.4 Packaging Group: II

14.5 Environmental hazards

Hazardous to the environment: no

Marine Pollutant (IMDG): no

14.6 Special precautions for user

Relevant information in other sections has to be considered.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Bulk transport in tankers is not intended.

SECTION 15: Regulatory information

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

National and local regulations must be observed.

For information on labelling please refer to section 2 of this document.

15.2 Details of international registration status

Relevant information about individual substance inventories, where available, is given below.

Japan: **ENCS** (Handbook of Existing and New Chemical Substances):
This product is listed in, or complies with, the substance inventory.

Australia: **AICS** (Australian Inventory of Chemical Substances):
This product is listed in, or complies with, the substance inventory.

China.....: **IECSC** (Inventory of Existing Chemical Substances in China):
This product is listed in, or complies with, the substance inventory.

Canada: **DSL** (Domestic Substance List):
This product is listed in, or complies with, the substance inventory.

Philippines.....: **PICCS** (Philippine Inventory of Chemicals and Chemical Substances):
This product is listed in, or complies with, the substance inventory.

United States of America (USA).....: **TSCA** (Toxic Substance Control Act Chemical Substance Inventory):
All components of this product are listed as active or are in compliance with the substance inventory.

Taiwan: **TCSI** (Taiwan Chemical Substance Inventory):
This product is listed in, or complies with, the substance inventory. General note:
The Taiwanese chemicals regulation requires a phase 1 registration for TCSI-listed or TCSI-compliant substances if imports to Taiwan or manufacturing in Taiwan exceed the trigger quantity of 100 kg/a (for mixtures to be calculated per each ingredient). It is the duty of the importing/manufacturing legal entity to take care of this obligation.

European Economic Area (EEA).....: **REACH** (Regulation (EC) No 1907/2006):
General note: the registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligations for substances imported into the EEA by customers or other downstream users must be fulfilled by the latter.

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South Korea (Republic of Korea) : **AREC** (Act on Registration and Evaluation of Chemicals; "K-REACH"):
General note: in case of registration obligations for substances or polymers imported into Korea or manufactured within Korea these are fulfilled by the supplier mentioned in section 1. The registration obligations for substances or polymers imported into Korea by customers or other downstream users must be fulfilled by the latter.

SECTION 16: Other information

16.1 Material

The details in this document are based on the state of our knowledge at the time of revision. They do not constitute an assurance of the described product properties in terms of statutory warranty requirements.

The providing of this document to a recipient does not relieve the recipient of his or her responsibility toward compliance with all laws and stipulations applicable to the product. This applies in particular to the further sale or distribution of the product or substances or items containing the product, in other jurisdictions and with regard to the protection of third-party intellectual property rights. If the described product is processed or mixed with other substances or materials, the details stated in this document cannot be conferred to the resultant new product unless this has been expressly mentioned. If the product is repackaged, the recipient is obligated to additionally provide the required safety-related information.

16.2 Further information:

Commas appearing in numerical data denote a decimal point. Vertical lines in the left-hand margin indicate changes compared with the previous version. This version supersedes all previous versions.

Classification	Rationale:
Corrosive to metals, Category 1	Calculation method
Serious eye damage/eye irritation, Category 1	Calculation method
Skin corrosion/irritation, Category 1A	Calculation method

- End of Safety Data Sheet -