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

1.1. Product identifier

Natrii hydroxidi 30% solut

Item No. 20937500

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG
Industriestrasse 35
9100 Herisau

Telephone no.	0041 (0)71 353 58 58
E-mail address of person responsible for this SDS	sdb@haenseler.ch

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Met. Corr. 1	H290
Skin Corr. 1A	H314
Eye Dam. 1	H318

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008
For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Danger

Hazard statements ***

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

Precautionary statements ***

P234	Keep only in original packaging.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P310	Immediately call a POISON CENTER or doctor.

P501.3 Disposal in compliance with local and national regulations.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains Sodium hydroxide

SECTION 3: Composition/information on ingredients

Chemical characterization

Alcoholic solution

Hazardous ingredients

Sodium hydroxide

CAS No. 1310-73-2
EINECS no. 215-185-5
Registration no. 01-2119457892-27-XXXX
Concentration >= 25 < 50 %
Classification (Regulation (EC) No. 1272/2008)
Skin Corr. 1A H314

Concentration limits (Regulation (EC) No. 1272/2008)

Eye Irrit. 2	H319	>= 0.5 < 2
Skin Corr. 1A	H314	>= 5
Skin Corr. 1B	H314	>= 2 < 5
Skin Irrit. 2	H315	>= 0.5 < 2

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from danger area. Adhere to personal protective measures when giving first aid. Remove contaminated clothing immediately and dispose of safely.

After inhalation

If the patient is likely to become unconscious, place and transport in stable sideways position.

After skin contact

Summon a doctor immediately. Wash off immediately with soap and water and rinse well.

After eye contact

Shield unaffected eye. Separate eyelids, wash the eyes thoroughly with water (15 min.). Summon a doctor immediately.

After ingestion

Do not induce vomiting. No trials on neutralisation. Rinse out mouth and give plenty of water to drink. Ensure supply of fresh air. Take medical treatment.

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

Irritation of mucosa, Chemical burn, Vomiting

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

Hints for the physician / hazards

Risk of stomach perforation; Frequent and persistent contact with the skin can cause dermatitis.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

explosiv

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Wear full protective suit. Use self-contained breathing apparatus. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

High risk of slipping due to leakage/spillage of product. Wear protective equipment. Keep away unprotected persons.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Advise water authority if spillage has entered water course or drainage system.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder).

6.4. Reference to other sections

Information regarding waste disposal, see Section 13. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

When diluting, always stir product into water. For personal protection see Section 8.

Advice on protection against fire and explosion

The product is not combustible.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Provide alkali-resistant floor. Do not use light metal drums.

Hints on storage assembly

Do not store with acids. Peroxides

Storage classes

Storage class according to TRGS 510	8B	Non-combustible corrosive hazardous substances
Storage category (Switzerland)	8	Caustic and corrosive substances

Further information on storage conditions

Keep container tightly closed in a cool, well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Sodium hydroxide

List	SUVA	
Type	MAK	
Value	2	mg/m³
Short term exposure limit	2	mg/m³

Pregnancy group: S; Status: 2017; Remarks: SSc; Haut, OAWKT & AugeKT; NIOSH, OSHA

Derived No/Minimal Effect Levels (DNEL/DMEL)

Sodium hydroxide

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	1	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	1	mg/m³

Predicted No Effect Concentration (PNEC)

Sodium hydroxide

8.2. Exposure controls

Exposure controls

See Section 7. No measures exeeding the ones mentioned necessary.

General protective and hygiene measures

Hold eye wash fountain available. Keep away from food-stuffs, beverages and feed-stocks. Take off immediately all contaminated clothing. Wash hands before breaks and after work. Avoid contact with skin and eyes.

Respiratory protection

Breathing apparatus in the event of vapours. Breathing apparatus in the event of aerosol or mist formation. Particle filter P2

Hand protection

Gloves (alkali-resistant)

Appropriate Material	Gloves / resistant to chemicals		
Breakthrough time	>=	8	h
Appropriate Material	Natural Latex		
Material thickness		0.5	mm
Breakthrough time	>=	8	h
Appropriate Material	Polychloroprene		
Material thickness		0.5	mm
Breakthrough time	>=	8	h
Appropriate Material	nitrile rubber - NBR		
Material thickness		0.35	mm
Breakthrough time	>=	8	h
Appropriate Material	Butyl rubber - Butyl		
Material thickness		0.5	mm
Breakthrough time	>=	8	h
Appropriate Material	Fluoro carbon rubber - FKM		
Material thickness		0.4	mm
Breakthrough time	>=	8	h

Appropriate Material	PVC		
Material thickness		0.5	mm
Breakthrough time	>=	8	h

Not suitable: leather gloves
Not suitable: gloves made of thick material

Eye protection

Tightly fitting safety glasses; Face shield

Body protection

Alkali-resistant protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	liquid			
Colour	colourless			
Odour	odourless			
pH value				
Value		14		
Temperature		20	°C	
Melting point				
Value	appr.	1		°C
Initial boiling point and boiling range				
Value		117		°C
Flash point				
Value		°C		
Remarks	Not applicable			
Flammability (solid, gas)				
Not self inflammable				
Vapour pressure				
Value		23		hPa
Temperature		20	°C	
Density				
Value	appr.	1.34		g/cm³
Temperature		20	°C	
Solubility in water				
Value		1090		g/l
Temperature		20	°C	
Viscosity				
dynamic				
Value	appr.	13		mPa.s
Temperature		20	°C	

9.2. Other information

Other information

The product is not dangerous for explosions.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactions with metals, with evolution of hydrogen.

10.2. Chemical stability
No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions
Possible incompatibility with materials lister under section 10.5.

10.4. Conditions to avoid
Keep away from sources of heat and ignition. Flames

10.5. Incompatible materials
Reactions with metals, with evolution of hydrogen. Aluminium, Reactions with light metals. Zinc, Explosive, Exothermic reaction with acids.

10.6. Hazardous decomposition products
Hydrogen

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

ATE	6'451.61	mg/kg
Method	29 calculated value (Regulation (EC) No. 1272/2008)	

Acute oral toxicity (Components)

Sodium hydroxide

Species	rat	
LD50	2000	mg/kg

Skin corrosion/irritation

Remarks: Corrosive action on the skin and mucous membrane.

Skin corrosion/irritation (Components)

Sodium hydroxide

Species	rabbit	
Duration of exposure	24	h
Remarks	Corrosive	

Serious eye damage/irritation

Remarks: strongly corrosive

Serious eye damage/irritation (Components)

Sodium hydroxide

Species	rabbit	
Duration of exposure	24	h
evaluation	strongly corrosive	
Method	Draize method	
Remarks	Influence of the product with the eyes can lead to blindness.	

Sensitization

Remarks: No sensitation effect known.

Specific Target Organ Toxicity (STOT) (Components)

Sodium hydroxide

Remarks: No data available

Experience in practice

Ingestion of aqueous solution causes burns in: Mouth. Throat. Perforation of gullet and stomach.

SECTION 12: Ecological information

12.1. Toxicity

Fish toxicity (Components)

Sodium hydroxide

Species	Gambusia affinis		
LC50	125		mg/l
Duration of exposure	96	h	

Sodium hydroxide

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	45.4		mg/l
Duration of exposure	96	h	

Daphnia toxicity (Components)

Sodium hydroxide

Species	Daphnia		
EC50	40.38		mg/l
Duration of exposure	48	h	
Remarks	Immobilization		

Sodium hydroxide

Species	Daphnia magna		
EC50	76		mg/l
Duration of exposure	24	h	

Bacteria toxicity (Components)

Sodium hydroxide

Species	Photobacterium phosphoreum		
EC50	22		mg/l
Duration of exposure	15	min	

12.2. Persistence and degradability

Biodegradability (Components)

Sodium hydroxide

evaluation not degradable

12.5. Results of PBT and vPvB assessment

Evaluation of persistance and bioaccumulation potential (Components)

Sodium hydroxide

Does not bioaccumulate.

12.6. Other adverse effects

Behaviour in sewers [waste treatment plants]

The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

EWC waste code No not dispose with rubbish.

In accordance with regulations for special waste, must be taken to an authorised special waste disposal site.

EWC waste code Should not be released into the sanitary sewer system.

Disposal recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	E		
14.1. UN number	1824	1824	1824
14.2. UN proper shipping name	SODIUM HYDROXIDE SOLUTION	SODIUM HYDROXIDE SOLUTION	SODIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es)	8	8	8
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 l		
Transport category	2		

SECTION 15: Regulatory information ***

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

Water Hazard Class (Germany) ***

Water Hazard Class (Germany)	WGK 1
Remarks	Derivation of WGK according to Annex 1 No. 5.2 AwSV

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Hazard statements listed in Chapter 3

H314	Causes severe skin burns and eye damage.

CLP categories listed in Chapter 3

Skin Corr. 1A	Skin corrosion, Category 1A

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.