Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: Sodium Hydroxide Solution 32% / Hyaltech

Substance number: 336030

Version: 1 / CH

Replaces Version: - / CH

Date revised: 31.10.2022 Print date: 17.11.22

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

1.1. Product identifier

Sodium Hydroxide Solution 32% / HyaltechItem No.33603000

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 sdb@haenseler.ch person responsible for this SDS

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)

Skin Corr. 1AH314Eye Dam. 1H318

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 H314

Causes severe skin burns and eye damage.

Precautionary statements

| P264.1 | Wash hands thoroughly after handling. |
|----------------|--|
| 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. |
| | |

| rade name: Sodium Hydroxi | le Solution 32% / Hya | altech | | |
|--|--|------------------------------|------------------|------------------------|
| Substance number: 336030 | Version: 1 / CH | | Da | te revised: 31.10.2022 |
| | Rep | places Version: - / CH | | Print date: 17.11.2 |
| Hazardous compone contains | nt(s) to be indicate sodium hydroxide | ∋d on label (Regulatio | on (EC) No. 1272 | 2/2008) |
| ECTION 3: Compos | | on on ingredien | <u>ts</u> | |
| Chemical characteriz Alcoholic solution | ation | | | |
| Hazardous ingredien | ts | | | |
| sodium hydroxide CAS No. EINECS no. Registration no. Concentration Classification (Regula Concentration limits (| >= 25 tion (EC) No. 1272/20 Met. Corr. 1 Skin Corr. 1A Regulation (EC) No. 1 Eye Irrit. 2 Skin Corr. 1A Skin Corr. 1B | < 50 008) H290 H314 | % | |
| Further ingredients | | | | |
| water CAS No. EINECS no. Concentration Advice: [4] | 7732-18-5 231-791-2 | >= 50 | % | |
| Note [4] Voluntary informat | | | | |

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.). Take medical treatment.

After ingestion

Do not induce vomiting. No trials on neutralisation. Let plenty of water be drunk in small gulps. Ensure supply of fresh air. Summon a doctor immediately.

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

Irritation of mucosa, Chemical burn, Vomiting

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4.3. Indication of any immediate medical attention and special treatment needed Hints for the physician / hazards

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide, Dry powder, Water spray jet, Extinguish greater fire with water spray or alcohol-resistant foam.

5.3. Advice for firefighters

Special protective equipment for fire-fighting Wear full protective suit.

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

Dilute with lot of water. Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Clean contaminated surfaces, appropriate is: Slightly acid solution. Rinse away rest with plenty of water. Neutralize. When picked up, treat material as prescribed under Section 13 "Disposal". Ensure adequate ventilation.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

When diluting, always stir product into water.

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

Not required.

Storage classes

Storage class according to TRGS 510

Storage category (Switzerland)

Non-combustible corrosive hazardous substances Caustic and corrosive substances

Further information on storage conditions Protect from frost. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8B

8

| Safety data sheet in accordance wi | th regu | Ilation (E | C) No 1907/2006 | |
|--|--------------------|------------------------|---------------------------------|---|
| Trade name: Sodium Hydroxide Solu | ition 32 | % / Hyalte | ech | |
| Substance number: 336030 | | Versi | on: 1/CH | Date revised: 31.10.20 |
| | | Repla | aces Version: - / CH | Print date: 17.11 |
| Exposure limit values | | | | |
| sodium hydroxide | | | | |
| List | SL | JVA | | |
| Туре | MA | | | |
| Value | 2 | | mg/m³ | |
| Short term exposure limit Pregnancy group: S; Rema | 2 rks: SS | | ng/m³ DAWKT & AugeKT; NIOSH, | OSHA |
| 8.2. Exposure controls | | | | |
| General protective and hyg | liene n | neasure | s | |
| Hold eye wash fountain avai | lable. K ng imm | eep away ediately a | / from food-stuffs, beverage | s and feed-stocks. Remove hands before breaks and after |
| Respiratory protection | | | | |
| Breathing apparatus in the e | vent of | aerosol o | r mist formation. Particle filt | er P2 |
| Hand protection | | | | |
| Gloves (alkali-resistant) | | | | |
| Appropriate Material | Natur | al Latex | | |
| Material thickness | | 0.5 | mm | |
| Breakthrough time | >= | 8 | h | |
| Gloves (alkali-resistant) | | | | |
| Appropriate Material | Polyc | hloropren | e | |
| Material thickness | | 0.5 | mm | |
| Breakthrough time | >= | 8 | h | |
| Gloves (alkali-resistant) | | | | |
| Appropriate Material | Butyl | rubber - E | • | |
| Material thickness | | 0.5 8 | mm b | |
| Breakthrough time | >= | 0 | h | |
| Gloves (alkali-resistant) Appropriate Material | nitrilo | rubber - I | NBP | |
| Material thickness | mune | 0.35 | mm | |
| Breakthrough time | >= | 8 | h | |
| Gloves (alkali-resistant) | | - | | |
| Appropriate Material | Fluor | carbon i | ubber - FKM | |
| Material thickness | | 0.4 | mm | |
| Breakthrough time | >= | 8 | h | |
| Gloves (alkali-resistant) | | | | |
| Appropriate Material | PVC | o – | | |
| Material thickness | | 0.5 | mm | |
| Breakthrough time | >= | 8 | h | |
| Not suitable: leather gloves Not suitable: gloves made of | thick m | naterial | | |
| Eye protection | | | | |
| Tightly fitting safety glasses; | Faces | hield | | |
| | . 400 3 | | | |
| Body protection Alkali-resistant protective clo | othing | | | |
| ECTION O. Dhusiaal and | ahar | nicel - | ronortion | |
| ECTION 9: Physical and | cner | nical p | properties | |
| 9.1. Information on basic phy | | | emical properties | |
| Form | liq | uid | | |
| pH value | | | | |
| Value | | 1.4 | | |

Value

14

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|--|---|--|
| Trade name: Sodium Hydroxide So | olution 32% / Hyaltech | |
| Substance number: 336030 | Version: 1 / CH | Date revised: 31.10.202 |
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| Melting point | | |
| Value | 9 | °C |
| Initial boiling point and b | ooiling range | |
| Value | 116 | °C |
| Flash point | | |
| Value | °C | |
| Remarks | Not applicable | |
| Flammability (solid, gas) Not self inflammable | | |
| Vapour pressure | | |
| Value | 23 | hPa |
| Density | | |
| Value | appr. 1.359 | g/cm ³ |
| Solubility in water | | |
| Remarks | Completely miscible | |
| SECTION 10: Stability a | nd reactivity | |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material | d and applied as directed. Is acids. Reactions with metals, with evo | plution of hydrogen. Violent vapour |
| No decomposition if stored 10.5. Incompatible material Exothermic reaction with a | d and applied as directed. Is acids. Reactions with metals, with evo of water. | olution of hydrogen. Violent vapour |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decomposition | d and applied as directed. Is acids. Reactions with metals, with evo of water. sition products | plution of hydrogen. Violent vapour |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompos None known | d and applied as directed. Is acids. Reactions with metals, with evo of water. sition products <u>ical information</u> | olution of hydrogen. Violent vapour |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompos None known SECTION 11: Toxicologi | d and applied as directed. Is acids. Reactions with metals, with evo of water. sition products <u>ical information</u> | olution of hydrogen. Violent vapour |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompose None known SECTION 11: Toxicologie 11.1. Information on toxico | d and applied as directed. Is acids. Reactions with metals, with even of water. sition products ical information ological effects 1'015.62 | olution of hydrogen. Violent vapour mg/kg |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompose None known SECTION 11: Toxicologie 11.1. Information on toxico Acute oral toxicity ATE | d and applied as directed. Is acids. Reactions with metals, with even of water. sition products ical information blogical effects 1'015.62 5 | mg/kg |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompose None known SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity ATE Method | d and applied as directed. Is acids. Reactions with metals, with even of water. sition products ical information ological effects 1'015.62 5 calculated value (Regulation (EC | mg/kg |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompose None known SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity ATE Method Acute oral toxicity (Comp | d and applied as directed. Is acids. Reactions with metals, with even of water. sition products ical information ological effects 1'015.62 5 calculated value (Regulation (EC | mg/kg |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompose None known SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity ATE Method Acute oral toxicity (Comp sodium hydroxide | d and applied as directed. Is acids. Reactions with metals, with even of water. sition products ical information ological effects 1'015.62 5 calculated value (Regulation (EC | mg/kg |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompos None known SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity ATE Method Acute oral toxicity (Comp sodium hydroxide Species LD50 | d and applied as directed. Is acids. Reactions with metals, with even of water. sition products ical information ological effects 1'015.62 5 calculated value (Regulation (EC ponents) rat 2000 | mg/kg |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompos None known SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity ATE Method Acute oral toxicity (Comp sodium hydroxide Species LD50 Source | d and applied as directed. Is acids. Reactions with metals, with even of water. sition products ical information ological effects 1'015.62 5 calculated value (Regulation (EC ponents) rat | mg/kg ⁽) No. 1272/2008) |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompos None known SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity ATE Method Acute oral toxicity (Comp sodium hydroxide Species LD50 Source sodium hydroxide | d and applied as directed. Is acids. Reactions with metals, with ever of water. sition products ical information blogical effects 1'015.62 5 calculated value (Regulation (EC ponents) rat 2000 NLM HSDB | mg/kg ⁽) No. 1272/2008) |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompos None known SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity ATE Method Acute oral toxicity (Comp sodium hydroxide Species LD50 Source | d and applied as directed. Is acids. Reactions with metals, with ever of water. sition products ical information blogical effects 1'015.62 5 calculated value (Regulation (EC ponents) rat 2000 NLM HSDB rat 325 | mg/kg ⁽⁾ No. 1272/2008) |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompos None known SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity ATE Method Acute oral toxicity (Comp sodium hydroxide Species LD50 Source sodium hydroxide Species | d and applied as directed. Is acids. Reactions with metals, with ever of water. sition products ical information blogical effects 1'015.62 5 calculated value (Regulation (EC ponents) rat 2000 NLM HSDB rat | mg/kg 3) No. 1272/2008) mg/kg |
| 10.4. Conditions to avoid No decomposition if stored 10.5. Incompatible material Exothermic reaction with a formation under influence 10.6. Hazardous decompose None known SECTION 11: Toxicologi 11.1. Information on toxico Acute oral toxicity ATE Method Acute oral toxicity (Comp sodium hydroxide Species LD50 Source sodium hydroxide Species LD50 | d and applied as directed. Is acids. Reactions with metals, with ever of water. sition products ical information blogical effects 1'015.62 5 calculated value (Regulation (EC ponents) rat 2000 NLM HSDB rat 325 | mg/kg 3) No. 1272/2008) mg/kg |

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| rade name: Sodium Hydroxide S | olution 32% / Hyaltech | |
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| Acute dermal toxicity (C | omponents) | |
| sodium hydroxide | | |
| Remarks | Strong corrosive action on the skin and r | nucous membrane. |
| sodium hydroxide Species | rabbit | |
| LD50 | 1350 m | ig/kg |
| Source | NLM HSDB | |
| Acute inhalative toxicity | (Components) | |
| sodium hydroxide Remarks | Strong corrosive action on the skin and r | nucous membrane. |
| Skin corrosion/irritation | | |
| evaluation Remarks | strongly corrosive Corrosive action on the skin and mucous | s membrane. |
| Skin corrosion/irritation | (Components) | |
| sodium hydroxide | | |
| Species | rabbit | |
| Duration of exposure Remarks | 24 h Corrosive | |
| Serious eye damage/irrit | | |
| Remarks | strongly corrosive | |
| Serious eye damage/irrit | | |
| sodium hydroxide | | |
| Species | rabbit | |
| Duration of exposure | 24 h | |
| evaluation Method | strongly corrosive Draize method | |
| Remarks | Influence of the product with the eyes ca | n lead to blindness. |
| Sensitization | | |
| Remarks | No sensitation effect known. | |
| Sensitization (Compone | nts) | |
| sodium hydroxide | | |
| Remarks | No sensitation effect known. | |
| Subacute, subchronic, c | hronic toxicity (Components) | |
| sodium hydroxide Remarks | No data available | |
| Mutagenicity (Compone | nts) | |
| sodium hydroxide | | |
| Species | Escherichia coli | |
| evaluation | No mutagenicity in the Ames-test. | |
| Reproduction toxicity (C | omponents) | |
| sodium hydroxide Remarks | No data available | |
| Carcinogenicity (Compo | | |
| sodium hydroxide | · | |
| evaluation | No negative effects | |
| Specific Target Organ To | oxicity (STOT) (Components) | |

| Safety data sheet in accordance | with regulation (EC | C) No 1907/2006 | |
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| Devede | Nu lata a s'hal l | | |
| Remarks | No data availabl | e | |
| Experience in practice After Swallowing: burns in oesophagus and stomach. | | phagus and gastroin | tetinal tract. Risk of perforation in the |
| SECTION 12: Ecological | information | | |
| 12.1. Toxicity | | | |
| Fish toxicity | | | |
| Species | Bluegill (Lepomi | s macrochirus) | |
| LC50 | 99 | | mg/l |
| Duration of exposure | 48 rainbow trout (O | h ncorhynchus mykiss) | |
| Species LC50 | 45.4 | | mg/l |
| Duration of exposure | 96 | h | |
| Fish toxicity (Component | s) | | |
| sodium hydroxide | | | |
| Species | Gambusia affinis | 3 | |
| LC50 | 125 | - | mg/l |
| Duration of exposure | 96 | h | - |
| sodium hydroxide | | | |
| Species | | ncorhynchus mykiss) | |
| LC50 | 45.4 96 | h | mg/l |
| Duration of exposure | 90 | h | |
| Daphnia toxicity | Danhaia magna | | |
| Species EC50 | Daphnia magna 76 | | mg/l |
| Duration of exposure | 24 | h | 119/1 |
| Daphnia toxicity (Compo | nents) | | |
| sodium hydroxide | | | |
| Species | Daphnia | | |
| EC50 | 40.38 | | mg/l |
| Duration of exposure | 48 | h | |
| Remarks | Immobilization | | |
| sodium hydroxide | Destate | | |
| Species EC50 | Daphnia magna 76 | | mg/l |
| Duration of exposure | 24 | h | iiig/i |
| Algae toxicity (Compone | | | |
| | 113) | | |
| sodium hydroxide Remarks | No data availabl | e. | |
| Bacteria toxicity (Compo | nents) | | |
| sodium hydroxide | | | |
| Species | Photobacterium | phosphoreum | |
| EC50 | 22 | | mg/l |
| Duration of exposure | 15 | min | |
| 12.2. Persistence and degra | adability | | |
| Physico-chemical elimina | ability (Compone | nts) | |
| sodium hydroxide Remarks | No data availabl | е. | |

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Biodegradability (Components)

sodium hydroxide evaluation

not degradable

Ready degradability (Components)

sodium hydroxide

Remarks

Inorganic product, cannot be eliminated from the water by biological purification processes.

12.4. Mobility in soil

Mobility in soil (Components)

sodium hydroxide

Slightly mobile in soils

12.6. Other adverse effects

General information / ecology

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

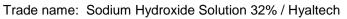
Disposal recommendations for the product

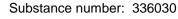
EWC waste codeNo not dispose with rubbish.EWC waste codeShould not be released into the sanitary sewer system.In accordance with regulations for special waste, must be taken after pretreatment to an authorisedspecial waste disposal site or incineration plant.EWC waste code06 03 99wastes not otherwise specified

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





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| | 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, Solution | SODIUM HYDROXIDE SOLUTION, Solution | SODIUM HYDROXIDE SOLUTION, Solution |
| 14.3. Transport hazard class(es) | 8 | 8 | 8 |
| Label | 1 M M M M M M M M M M M M M M M M M M M | A B | Ref. |
| 14.4. Packing group | II | П | 11 |
| Limited Quantity | 11 | | |
| 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 WGK 1 (Germany) Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

SECTION 16: Other information

Hazard statements listed in Chapter 3

H290May be corrosive to metals.H314Causes severe skin burns and eye damage.

CLP categories listed in Chapter 3

Met. Corr. 1 Skin Corr. 1A Substance or mixture corrosive to metals, Category 1 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.