

Sodium hydroxide

S5881-5KG

Version 1.4

Issuing date 12/19/2016

Revision Date 10/19/2022

Print Date 05/30/2023

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**Product information**

Trade name : Sodium hydroxide

Number : 000000020688

Recommended use of the chemical and restrictions on use : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH
Wunstorfer Straße 40
Seelze, 30926
Germany

For further information, please contact: : 1-800-368-0050
+1-231-726-3171
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : Medical: 1-800-498-5701 or +1-303-389-1414
: **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**
In Japan: +(81)-345209637

2. HAZARDS IDENTIFICATION**Classification of the substance or mixture**

Classification of the substance or mixture : Corrosive to metals, Category 1
Skin corrosion, Category 1A
Serious eye damage, Category 1

GHS Label elements, including precautionary statements

Symbol(s) :



Signal word : Danger

Hazard statements : May be corrosive to metals.

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Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**
Keep only in original container.
Do not breathe dust or mist.
Wash skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/ doctor.
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.

Storage:
Store locked up.
Store in corrosive resistant container with a resistant inner liner.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : NaOH

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Sodium hydroxide	1310-73-2	100.00 %
Sodium hydroxide		

4. FIRST AID MEASURES

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General advice	: First aider needs to protect himself. Take off all contaminated clothing immediately.
Inhalation	: Remove to fresh air. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician immediately.
Skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician immediately.
Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Protect unharmed eye. Call a physician immediately.
Ingestion	: When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.
Notes to physician	: Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water spray Foam Carbon dioxide (CO2) Dry powder
Specific hazards during firefighting	: The product is not flammable. Contact with metals liberates hydrogen gas. Fire may cause evolution of: Sodium oxides
Special protective equipment for firefighters	: Wear self-contained breathing apparatus and protective suit.
Further information	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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6. ACCIDENTAL RELEASE MEASURES

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|---|---|
| Personal precautions, protective equipment and emergency procedures | : Wear personal protective equipment. Unprotected persons must be kept away.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Ensure adequate ventilation.
Do not get in eyes, on skin, or on clothing. |
| Environmental precautions | : Prevent further leakage or spillage if safe to do so.
Discharge into the environment must be avoided.
Do not flush into surface water or sanitary sewer system.
Do not allow run-off from fire fighting to enter drains or water courses. |
| Methods and materials for containment and cleaning up | : Personal protection through wearing a tightly closed chemical protection suit and a self-contained breathing apparatus.
Use mechanical handling equipment.
Sweep up or vacuum up spillage and collect in suitable container for disposal.
Dispose of in accordance with local regulations. |

7. HANDLING AND STORAGE**Handling**

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|-------------------------------|--|
| Precautions for safe handling | : Wear personal protective equipment.
Use only in well-ventilated areas.
Use only alkali-proof equipment.
When diluting, always add the product to water. Never add water to the product.
Do not get in eyes, on skin, or on clothing. |
|-------------------------------|--|

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|---|---|
| Advice on protection against fire and explosion | : Normal measures for preventive fire protection. |
|---|---|

Storage

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|--|--|
| Conditions for safe storage, including any incompatibilities | : Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place. |
| Further information on storage conditions | : Protect from atmospheric moisture and water.
Product is hygroscopic. |

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
Sodium hydroxide Sodium hydroxide	1310-73-2	TLV-C : Ceiling Limit Value	2 mg/m3	04 2007	Japan Society for Occupational Health: Japan Society for Occupational Health allowable concentration recommendation value

Appropriate engineering controls

Use with local exhaust ventilation.

Individual protection measures, such as personal protective equipment

- Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
- Hand protection : Impervious gloves
Gloves must be inspected prior to use.
Replace when worn.
- Eye protection : Safety goggles
Face-shield
- Skin and body protection : Complete suit protecting against chemicals
- Hygiene measures : Take off all contaminated clothing immediately.
Remove and wash contaminated clothing before re-use.
Keep working clothes separately.
When using, do not eat, drink or smoke.
Wash hands before breaks and immediately after handling the product.
- Protective measures : Ensure that eyewash stations and safety showers are close to

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the workstation location.
Legal requirements are to be considered in regard of the
selection, use and care of personal protective equipment.
Do not breathe dust or spray mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: solid
Colour	: colourless
Odour	: odourless
Odour Threshold	: Note: No data available
pH	: Note: alkaline
Melting point/range	: 319 °C
Boiling point/boiling range	: 1,390 °C at 1,013 hPa
Flash point	: Note: Not applicable
Evaporation rate	: Note: No data available
Flammability	: The product is not flammable.
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapour pressure	: Note: No data available
Vapour density	: Note: No data available
Density	: 2.13 g/cm ³ at 20 °C
Water solubility	: Note: completely soluble

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Solubility in other solvents	: Note: No data available
Partition coefficient: n-octanol/water	: Note: No data available
Ignition temperature	: Note: Not applicable
Viscosity, dynamic	: Note: No data available
Viscosity, kinematic	: Note: No data available
Particle size	: Note: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 40.00 g/mol
Bulk density	: Note: No data available
Corrosivity	: Note: Corrosive to metals

10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Possible incompatibility with alkali sensitive materials. With acid and aluminium. Reacts violently with water. Corrosive in contact with metals
Conditions to avoid	: Corrodes metals in the presence of water or moisture. Protect from moisture.
Incompatible materials to avoid	: Zinc Aluminium Tin Gives off hydrogen by reaction with metals. Exothermic reaction with water. Exothermic reaction with strong acids.
Hazardous decomposition products	: Sodium oxides

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11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Inhalation, Eye contact, Skin contact, Ingestion
Acute oral toxicity	: Note: Toxicity is determined by the corrosivity of the product.
Acute inhalation toxicity	: Note: Toxicity is determined by the corrosivity of the product.
Acute dermal toxicity	: Note: Toxicity is determined by the corrosivity of the product.
Skin corrosion/irritation	: Result: Causes severe burns. Classification: Corrosive
Serious eye damage/eye irritation	: Result: Risk of serious damage to eyes. Classification: Corrosive
Respiratory sensitisation	: Note: No data available
Skin sensitisation	: Note: No data available
Repeated dose toxicity	: Note: No data available
Germ cell mutagenicity	: Note: No data available
Carcinogenicity	: Species: not specified Note: No data available
Reproductive toxicity	: Species: not specifiedNote: No data available
Specific target organ toxicity - single exposure	: Note :No data available
Specific target organ toxicity - repeated exposure	: Note :No data available
Aspiration toxicity	: No data available

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12. ECOLOGICAL INFORMATION**Aquatic and ecotoxicity**

Toxicity to fish : Note: No data available

Toxicity to daphnia and other aquatic invertebrates : Immobilization
EC50: 40.4 mg/l
Exposure time: 48 h
Species: Ceriodaphnia spec

Toxicity to algae : Note: No data available

Persistence and degradability

Biodegradability : Note: The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

Bioaccumulation : Note: No data available

Mobility in soil

Mobility : Note: No data available

Other adverse effects

Additional ecological information : Should not be released into the environment.
Neutralisation will reduce ecotoxic effects.

13. DISPOSAL CONSIDERATIONS

Disposal methods : In accordance with local and national regulations.

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14. TRANSPORT INFORMATION**ADR**

UN/ID No. : UN 1823
Description of the goods : SODIUM HYDROXIDE, SOLID

Class : 8
Packing group : II
Classification Code : C6
Hazard Identification Number : 80
Labels : 8

IATA

UN/ID No. : UN 1823
Description of the goods : Sodium hydroxide, solid
Class : 8
Packing group : II
Labels : 8
Packing instruction (cargo aircraft) : 863
Packing instruction (passenger aircraft) : 859
Packing instruction (passenger aircraft) : Y844

IMDG

UN/ID No. : UN 1823
Description of the goods : SODIUM HYDROXIDE, SOLID
Class : 8
Packing group : II
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B

Marine pollutant : no

15. REGULATORY INFORMATION**National regulatory information**

Vessel Safety Law : Corrosive substances (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)
JP VSL

Aviation Law : Corrosive substances (Article 194 of The Enforcement Rules of
10/13

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JP AVL

Aviation Law and its Attached Table 1)

Fire Service Law : Not relevant

Japan. ISHL Hazardous Substances Labeling Requirements (ISHL Art. 57, Enforcement Order Art. 18, Enforcement Rule Art. 30 & 31, as amended through 6 April 2018) : Listed
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Japan. SDS and Risk Assessment Requirements (ISHL Art. 57-2 and 57-3, Enforcement Order Art. 18-2, Enforcement Rule Art. 34-2 and 34-2-2), as amended : Listed
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Japan. ISHL Corrosive Liquid (Industrial Safety and Health Ordinance, Art. 326, as amended through MHLW Ordinance No. 212) : Listed
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Poisonous and Deleterious Substances Control Law : Deleterious substance not for pharmaceutical use
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Listed
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Other international regulations**Notification status**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic : All components of this product are on the Canadian DSL

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Substances List (DSL)

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS) : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC) : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI) : On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 3*	3
Flammability	: 0	0
Physical Hazard	: 1	
Instability	:	1

* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not

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to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group