

**Sodium hydroxide****06203-5KG**

Version 1.1

Revision Date 09/03/2019

Print Date 05/29/2023

**SECTION 1. IDENTIFICATION**

Product name : Sodium hydroxide

Number : 000000020688

Product Use Description : Laboratory chemicals

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

For more information call : 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**  
:  
: (24 hours/day, 7 days/week)

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

Form : solid

Color : colourless

Odor : odourless

**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**

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Symbol(s)

:



Signal word

: Danger

Hazard statements

: May be corrosive to metals.  
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.

**Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Formula : NaOH

Chemical nature : Substance

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

**SECTION 4. FIRST AID MEASURES**

- 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.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Water spray  
Foam  
Carbon dioxide (CO2)  
Dry powder

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- |                                               |   |                                                                                                                               |
|-----------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------|
| Specific hazards during firefighting          | : | The product is not flammable.<br>Contact with metals liberates hydrogen gas.<br>Fire may cause evolution of:<br>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.                       |

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- |                                                                     |   |                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | : | Wear personal protective equipment. Unprotected persons must be kept away.<br>Evacuate personnel to safe areas.<br>Keep people away from and upwind of spill/leak.<br>Ensure adequate ventilation.<br>Do not get in eyes, on skin, or on clothing.                                                  |
| Environmental precautions                                           | : | Prevent further leakage or spillage if safe to do so.<br>Discharge into the environment must be avoided.<br>Do not flush into surface water or sanitary sewer system.<br>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.<br>Use mechanical handling equipment.<br>Sweep up or vacuum up spillage and collect in suitable container for disposal.<br>Dispose of in accordance with local regulations. |

**SECTION 7. HANDLING AND STORAGE****Handling**

- |                               |   |                                                                                                               |
|-------------------------------|---|---------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | : | Wear personal protective equipment.<br>Use only in well-ventilated areas.<br>Use only alkali-proof equipment. |
|-------------------------------|---|---------------------------------------------------------------------------------------------------------------|

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When diluting, always add the product to water. Never add water to the product.

Do not get in eyes, on skin, or on clothing.

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

**Storage**

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.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Protective measures : Ensure that eyewash stations and safety showers are close to 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.

Engineering measures : Use with local exhaust ventilation.

Eye protection : Safety goggles  
Face-shield

Hand protection : Impervious gloves  
Gloves must be inspected prior to use.  
Replace when worn.

Skin and body protection : Complete suit protecting against chemicals

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

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.

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Wash hands before breaks and immediately after handling the product.

**Exposure Guidelines**

| Components       | CAS-No.   | Value                                                             | Control parameters | Update  | Basis                                                                        |
|------------------|-----------|-------------------------------------------------------------------|--------------------|---------|------------------------------------------------------------------------------|
| Sodium hydroxide | 1310-73-2 | Ceiling :<br>Ceiling Limit Value:                                 | 2 mg/m3            | 2008    | ACGIH:US. ACGIH Threshold Limit Values                                       |
| Sodium hydroxide | 1310-73-2 | Ceil_Tim e : Ceiling Limit Value and Time Period (if specified) : | 2 mg/m3            | 2005    | NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards                      |
| Sodium hydroxide | 1310-73-2 | PEL : Permissible exposure limit                                  | 2 mg/m3            | 02 2006 | OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) |
| Sodium hydroxide | 1310-73-2 | Ceiling :<br>Ceiling Limit Value:                                 | 2 mg/m3            | 1989    | Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)                                  |

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state : solid

Color : colourless

Odor : odourless

Odor threshold : Note: no data available

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|                                           |                                   |
|-------------------------------------------|-----------------------------------|
| 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            |
| Vapor pressure                            | : Note: no data available         |
| Vapor density                             | : Note: no data available         |
| Density                                   | : 2.13 g/cm <sup>3</sup> at 20 °C |
| Water solubility                          | : Note: completely soluble        |
| Partition coefficient:<br>n-octanol/water | : Note: no data available         |
| Ignition temperature                      | : Note: Not applicable            |
| Viscosity, dynamic                        | : Note: no data available         |
| Viscosity, kinematic                      | : Note: no data available         |

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Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : 40.00 g/mol

Corrosivity : Note: Corrosive to metals

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.

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 : Zinc  
Aluminium  
Tin  
Gives off hydrogen by reaction with metals.  
Exothermic reaction with water.  
Exothermic reaction with strong acids.

Hazardous decomposition products : Sodium oxides

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : Note: Toxicity is determined by the corrosivity of the product.

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|                           |                                                                        |
|---------------------------|------------------------------------------------------------------------|
| 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 irritation           | : Result: Causes severe burns.<br>Classification: Corrosive            |
| Eye irritation            | : Result: Risk of serious damage to eyes.<br>Classification: Corrosive |
| Sensitisation             | : Species: human<br>Classification: non-sensitizing                    |
| Repeated dose toxicity    | : Note: no data available                                              |
| Genotoxicity in vitro     | : Note: no data available                                              |

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

|                                                     |                                                                                          |
|-----------------------------------------------------|------------------------------------------------------------------------------------------|
| Toxicity to fish                                    | : Note: no data available                                                                |
| Toxicity to daphnia and other aquatic invertebrates | : Immobilization<br>EC50: 40.4 mg/l<br>Exposure time: 48 h<br>Species: Ceriodaphnia spec |
| Toxicity to algae                                   | : Note: no data available                                                                |

**Elimination information (persistence and degradability)**

|                  |                                                                  |
|------------------|------------------------------------------------------------------|
| Biodegradability | : Note: The methods for determining the biological degradability |
|------------------|------------------------------------------------------------------|

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are not applicable to inorganic substances.

**Further information on ecology**

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

**SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

**SECTION 14. TRANSPORT INFORMATION**

**DOT** UN/ID No. : UN 1823  
Proper shipping name : SODIUM HYDROXIDE, SOLID  
Class : 8  
Packing group : II  
Hazard Labels : 8

**IATA** UN/ID No. : UN 1823  
Description of the goods : SODIUM HYDROXIDE, SOLID  
Class : 8  
Packaging group : II  
Hazard 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  
Packaging group : II  
Hazard Labels : 8  
EmS Number : F-A, S-B  
Marine pollutant : no  
IMDG Code segregation group 18 – ALKALIS,

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**SECTION 15. REGULATORY INFORMATION****Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian 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. The Toxic Substances and Hazardous and Nuclear Waste Control Act : 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

**National regulatory information**

US. EPA CERCLA Hazardous Substances (40 CFR 302) : The following component(s) of this product is/are subject to release reporting under 40 CFR 302 when release exceeds the Reportable Quantity (RQ):

Reportable quantity: 1000 lbs

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|                            |                                                                                                                                                                                     |           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|                            | : Sodium hydroxide                                                                                                                                                                  | 1310-73-2 |
| SARA 302 Components        | : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.                                                                           |           |
| SARA 313 Components        | : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. |           |
| SARA 311/312 Hazards       | : Acute Health Hazard                                                                                                                                                               |           |
| CERCLA Reportable Quantity | : 1000 lbs                                                                                                                                                                          |           |
| California Prop. 65        | : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.                                          |           |
|                            |                                                                                                                                                                                     |           |
| Massachusetts RTK          | : Sodium hydroxide                                                                                                                                                                  | 1310-73-2 |
| New Jersey RTK             | : Sodium hydroxide                                                                                                                                                                  | 1310-73-2 |
| Pennsylvania RTK           | : Sodium hydroxide                                                                                                                                                                  | 1310-73-2 |

**SECTION 16. OTHER INFORMATION**

|                 |                 |             |
|-----------------|-----------------|-------------|
|                 | <b>HMIS III</b> | <b>NFPA</b> |
| 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**

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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 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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