



## Safety Data Sheet

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### Section 1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: Sodium hydroxide, granular

SDS No. : Q7586E-1

Recommended use of the chemical and restrictions on use

Research and Development

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN

Division: Chemical Safety Management Department

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

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### Section 2. Hazards identification

Classification of the substance or mixture

#### HEALTH HAZARDS

Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

Carcinogenicity: Category 1A

Specific target organ toxicity – single exposure: Category 1 (respiratory system)

Specific target organ toxicity – repeated exposure: Category 2 (immune system, respiratory system, kidneys)

#### ENVIRONMENT HAZARDS

Hazardous to the aquatic environment, short-term (acute): Category 3

(Note) GHS classification without description: Not classified/Classification not possible

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements

H314 Causes severe skin burns and eye damage

H350 May cause cancer

H370 Causes damage to organs (respiratory system)

H373 May cause damage to organs through prolonged or repeated exposure (immune system, respiratory system, kidneys)

H402 Harmful to aquatic life

Precautionary statements

Prevention

P203 Obtain, read and follow all safety instructions before use.

P273 Avoid release to the environment.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash hands thoroughly after handling.



P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 + P265 Wash hands thoroughly after handling. Do not touch eyes.

P270 Do not eat, drink or smoke when using this product.

**Response**

P308 + P316 IF exposed or concerned: Get emergency medical help immediately.

P316 Get emergency medical help immediately.

P317 Get medical help.

P318 IF exposed or concerned, get medical advice.

P319 Get medical help if you feel unwell.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P302 + P361 + P354 IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.

P363 Wash contaminated clothing before reuse.

P305 + P354 + P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**Storage**

P405 Store locked up.

**Disposal**

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Specific danger/hazard****Health hazard**

See "11. Toxicological Information".

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**Section 3. Composition/information on ingredients****Substance/mixture:****Mixture**

| Ingredient name          | Content (%) | CAS RN    | ENCS  | Chemical formula |
|--------------------------|-------------|-----------|-------|------------------|
| Sodium hydroxide         | 95          | 1310-73-2 | 1-410 | NaOH             |
| Silica-based ingredients | 5.0         | —         | 1-548 | —                |

Note : The figures shown above are not the specifications of the product.

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**Section 4. First aid measures****Descriptions of first aid measures****General measures**

IF exposed or concerned, get medical advice.

IF exposed or concerned: Get emergency medical help immediately.

**IF INHALED**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Get medical help if you feel unwell.

**IF ON SKIN**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water or shower.

Get emergency medical help immediately.

If skin irritation or rash occurs: Get medical help.

**IF IN EYES**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Get medical help.

If eye irritation persists: Get medical help.

**IF SWALLOWED**

Rinse mouth.

Do NOT induce vomiting.

IF SWALLOWED: Get medical help if you feel unwell.

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**Section 5. Fire-fighting measures**

## Extinguishing media

## Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

## Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

## Specific hazards arising from the substance or mixture

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

See "10.Stability and Reactivity".

## Advice for firefighters

## Special extinguishing method

Evacuate non-essential personnel to safe area.

## Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure mode.

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**Section 6. Accidental release measures**

## Personal precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

## Environmental precautions

Prevent spills from entering sewers, watercourses, low areas or rivers. To be careful not discharged to the environment without being properly handled waste water contaminated.

## Methods and materials for containment and cleaning up

Liquid: Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

Solid: Sweep up, place in a bag and hold for waste disposal.

## Preventive measures for secondary accident

Collect spillage.

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**Section 7. Handling and storage**

## Precautions for safe handling

## Engineering measures



(Measures to prevent operator exposure)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Measures to prevent fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Local ventilation/general ventilation)

Exhaust/ventilator should be available.

(Precautions)

Avoid contact with skin.

Avoid contact with eyes.

Advice on safe handling

Obtain, read and follow all safety instructions before use.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash hands and contaminated parts thoroughly after handling.

When using do not eat, drink or smoke.

Avoidance of contact

See Section 10: Stability and Reactivity.

Advice on general occupational hygiene

Wash hands thoroughly after handling.

Do not touch eyes.

Do not eat, drink or smoke when using this product.

Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Conditions for safe storage

Keep container tightly closed.

Store locked up. (P405)

Store in a cool, dry place. Do not store in direct sunlight.

Storage in accordance with local/national regulation.

Safe packaging material

Use closed unbreakable containers.

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## Section 8. Exposure controls/personal protection

Control parameters

Permissible concentration

Administrative Control Levels and Concentration standard value

Not established

Occupational exposure limit values

The Japan Society for Occupational Health

(Sodium hydroxide)

(Ceiling) 2mg/m<sup>3</sup>

(Silica-based ingredients)

0.03mg/m<sup>3</sup> (respirable crystalline silica)

ACGIH

(Sodium hydroxide)

Ceiling: 2mg/m<sup>3</sup> (URT, eye & skin irr)

(Silica-based ingredients)

TWA: 0.025mg/m<sup>3</sup>(R)(as Silica, crystalline) (Pulm fibrosis; lung cancer)

Appropriate engineering controls

Do not use in areas without adequate ventilation.



Eye wash station should be available.

Washing facilities should be available.

Individual protection measures, such as personal protective equipment

Recommend to use protective equipment in conformity with the standards.

Use appropriate protective equipment in accordance with local/national regulation.

Respiratory protection

Wear respiratory protection (dust-proof mask/gas mask). Select chemical cartridge corresponding to type of gases when using a gas mask.

Hand protection

Wear impervious protective glove.

Eye/face protection

Wear eye/face protection. Wear safety goggles in cases gas is generated.

Skin and body protection

Wear protective clothing.

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## Section 9. Physical and Chemical Properties

Physical state: Solid

Color: Gray

Odor data is not available.

Melting point/Freezing point data is not available.

Boiling point, initial boiling point, or boiling range data is not available.

Flammability data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water data is not available.

Solubility in solvent data is not available.

Partition coefficient n-octanol/water data is not available.

Vapor pressure data is not available.

Density and/or relative density data is not available.

Relative vapor density (Air=1) data is not available.

Particle characteristics data is not available.

Other information

Other information is not available.

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## Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

(Sodium hydroxide)

The solution in water is a strong base. It reacts violently with acid and is corrosive to metals such as aluminium, tin, lead and zinc. This produces a combustible/explosive gas



(hydrogen). Reacts with ammonium salts. This produces ammonia. This generates fire hazard.

Contact with moisture and water generates heat. (ICSC 0360)

(As Silicon dioxide)

Reacts violently with strong oxidants. This generates fire and explosion hazard. (ICSC 0808)

#### Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

#### Incompatible materials

Acids, Strong oxidizing agents, Ammonium salts, Metals

#### Hazardous decomposition products

Hydrogen

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## Section 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

[Data for components of the product]

[NITE-CHRIP]

(Silica-based ingredients)

rat LD50: > 2000 mg/kg (test substance: Hydrophobic calcined silica) (source: NITE)

##### Acute toxicity (Dermal)

[Data for components of the product]

[NITE-CHRIP]

(Silica-based ingredients)

rabbit LD50: > 2000 mg/kg (test substance: Silica gel) (source: NITE)

rabbit LD50: > 5000 mg/kg (test substance: Precipitated silica) (source: NITE)

#### Skin corrosion/irritation

[Product]

Category 1, Causes severe skin burns and eye damage

[Data for components of the product]

[NITE-CHRIP]

(Sodium hydroxide)

Category 1 (source: NITE)

#### Serious eye damage/irritation

[Product]

Category 1, Causes serious eye damage

[Data for components of the product]

[NITE-CHRIP]

(Sodium hydroxide)

Category 1 (source: NITE)

(Silica-based ingredients)

Category 2 (source: NITE)

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

#### Carcinogenicity

[Product]

Category 1A, May cause cancer

[Data for components of the product]



[NITE-CHIRP]

(Silica-based ingredients)

Category 1A (source: NITE)

[IARC]

(Silica-based ingredients)

Group 3 : Not classifiable as to its carcinogenicity to humans (Silica, amorphous)

[ACGIH]

(Silica-based ingredients)

A2: Suspected Human Carcinogen (Silica, crystalline, alpha-quartz and cristobalite)

[JSOH]

(Silica-based ingredients)

Group 1: The agents which are carcinogenic to humans (Silica, crystalline)

Reproductive toxicity data is not available.

Specific target organ toxicity – single exposure

[Product]

Category 1, Causes damage to organs

[Data for components of the product]

[NITE-CHIRP]

(Sodium hydroxide)

Category 1 (respiratory system) (source: NITE)

(Silica-based ingredients)

Category 3 (Respiratory tract irritation) (source: NITE)

Specific target organ toxicity – repeated exposure

[Product]

Category 2, May cause damage to organs through prolonged or repeated exposure

[Data for components of the product]

[NITE-CHIRP]

(Silica-based ingredients)

Category 1 (immune system, respiratory system, kidneys) (source: NITE)

Aspiration hazard data is not available.

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## Section 12. Ecological Information

Toxicity

Aquatic toxicity

[Product]

Category 3, Harmful to aquatic life

[Data for components of the product]

Hazardous to the aquatic environment, short-term (acute)

[NITE-CHIRP]

(Sodium hydroxide)

Crustacea (Ceriodaphnia quadrangular) 48-hour LC50: 40 mg/L (source: NITE)

Water solubility

(Sodium hydroxide)

109 g/100 mL (20°C) (source: ICSC, 2010)

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

Bioaccumulative potential data is not available.

Mobility in soil



Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

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### Section 13. Disposal considerations

Waste treatment methods

Waste from residues

Avoid release to the environment.

Dispose of contents/container as industrial waste. Accordance with local/national regulation.

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### Section 14. Transport Information

UNRTDG

UN number : UN1823

UN Proper Shipping Name : SODIUM HYDROXIDE, SOLID

Transport hazard class(es) : 8

Packing group : II

IMDG Code (International Maritime Dangerous Goods Regulations)

UN number : UN1823

UN Proper Shipping Name : SODIUM HYDROXIDE, SOLID

Transport hazard class(es) : 8

Packing group : II

IATA (Dangerous Goods Regulations)

UN number : UN1823

UN Proper Shipping Name : SODIUM HYDROXIDE, SOLID

Transport hazard class(es) : 8

Hazard labels : Corrosive

Packing group : II

Environmental hazards

Marine pollutants (yes/no) : no

Environmentally hazardous substance/mixture (yes/no) : no

ERG GUIDE No.: 154

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### Section 15. Regulatory Information

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

U.S. Toxic Substances Control Act (TSCA) Inventory

Chemicals listed in TSCA Inventory

Sodium hydroxide

Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

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### Section 16. Other information

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 23rd edit., 2023 UN



IMDG Code, 2024 Edition (Incorporating Amendment 42-24)  
IATA Dangerous Goods Regulations (67th Edition) 2026  
2024 EMERGENCY RESPONSE GUIDEBOOK (US DOT)  
2026 TLVs and BEIs. (ACGIH)  
JIS Z 7252 : 2025  
JIS Z 7253 : 2025  
Recommendation of occupational exposure limits (2024-2025) (JSOH)  
Supplier's data/information

**General Disclaimer**

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Unauthorized translation or modification is prohibited.

Please provide SDS to customers for selling or transferring.

All chemicals have unknown hazard. Handle the product with care.

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Data published in Japan (National Institute of Technology and Evaluation (NITE) Chemical Risk Information Platform (NITE-CHRIIP), up to FY2024).