



## Safety Data Sheet

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

Product identifier:

Product name: Sodium azide

SDS No. : 7106E-5

Relevant identified uses of the substance or mixture and uses advised against

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

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS

Self-reactive substances and mixtures: Type G

HEALTH HAZARDS

Acute toxicity (Oral): Category 2

Acute toxicity (Dermal): Category 1

Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

Specific target organ toxicity – single exposure: Category 1 (cardiovascular system, central nervous system, lungs, systemic toxicity)

Specific target organ toxicity – repeated exposure: Category 1 (cardiovascular system, central nervous system)

Specific target organ toxicity – repeated exposure: Category 2 (lungs)

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment, short-term (acute): Category 1

Hazardous to the aquatic environment, long-term (chronic): Category 1

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

Label elements



Signal word: Danger

HAZARD STATEMENT

H300 Fatal if swallowed

H310 Fatal in contact with skin

H314 Causes severe skin burns and eye damage

H370 Causes damage to organs (cardiovascular system, central nervous system, lungs, systemic toxicity)

H372 Causes damage to organs through prolonged or repeated exposure (cardiovascular system,



central nervous system)

H373 May cause damage to organs through prolonged or repeated exposure (lungs)

H410 Very toxic to aquatic life with long lasting effects

#### PRECAUTIONARY STATEMENT

##### Prevention

P273 Avoid release to the environment.

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

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash contaminated parts thoroughly after handling.

P280 Wear protective gloves or protective clothing.

P280 Wear protective gloves, protective clothing or face protection.

P280 Wear eye protection/face protection.

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

##### Response

P391 Collect spillage.

P314 Get medical advice/attention if you feel unwell.

P310 Immediately call a POISON CENTER/doctor/physician.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor/physician.

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

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or shower.

P363 Wash contaminated clothing before reuse.

P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P330 IF SWALLOWED: Rinse mouth.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.

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/national regulation.

#### Specific adverse human health effects

See "11. Toxicological Information".

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### Section 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name	Content (%)	CAS No.	ENCS	Chemical formula
Sodium azide	98(min)	26628-22-8	1-482	NaN <sub>3</sub>

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



Get medical advice/attention if you feel unwell.

**IF INHALED**

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor/physician if you feel unwell.

**IF ON SKIN**

Take off immediately all contaminated clothing. Rinse skin with water or shower.

Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

**IF IN EYES**

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

If eye irritation persists: Get medical advice/attention.

**IF SWALLOWED**

Rinse mouth.

Do NOT induce vomiting.

Immediately call a POISON CENTER/doctor/physician.

Call a POISON CENTER/doctor/physician 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.

In case of fire, use water mist or loaded liquid, foam, dry sand to extinguish.

\*Fire Service Act Group 5 Hazardous Materials

**Unsuitable extinguishing media**

Carbon Dioxide/ Halon Extinguishing System

Dry Chemical Extinguishing System—Using Phosphates, etc./Using Hydrogen Carbonates , etc./Others (except for phosphates etc., Hydrogen Carbonates etc.)

Fire Extinguisher Discharging Carbon Dioxide/Halogenide

Fire Extinguisher Discharging Dry Extinguishing agents— Using Phosphates, etc./Using Hydrogen Carbonates, etc./Others (except for phosphates etc., Hydrogen Carbonates etc.)

\*Cabinet Order Concerning the Control of Hazardous Materials (Attached Table 5) Group 5 Hazardous Materials

**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****Specific fire-fighting measures**

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**

Personnel 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**

- 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****Preventive measures****(Exposure Control for handling personnel)**

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

**(Protective measures against fire and explosion)**

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

**(Exhaust/ventilator)**

- Exhaust/ventilator should be available.

**(Safety treatments)**

- Avoid contact with skin.
- Avoid contact with eyes.

**Safety Measures**

- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash hands et al thoroughly after handling.
- When using do not eat, drink or smoke.

**Any incompatibilities**

- See "10.Stability and Reactivity".

**Advice on general occupational hygiene**

- Do not get in eyes, on skin, or on clothing.
- Wash contaminated parts thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Take off immediately all contaminated clothing and wash it before reuse.

**Storage****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.

**Container and packaging materials for safe handling**

- Use closed unbreakable containers.

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**Section 8. Exposure controls/personal protection****Control parameters**

- Control value and concentration standard value are not available in ISHA.

**Adopted value**



(Other inorganic and organic dust (third class dust ))

JSOH Respirable dust 2mg/m<sup>3</sup>, Total dust 8mg/m<sup>3</sup>

ACGIH(1996) STEL: C (as Sodium azide) 0.29mg/m<sup>3</sup>; (as Hydrazoic acid vapor) 0.11ppm (Card impair; lung dam)

#### Exposure controls

##### 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

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 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

#### Information on basic physical and chemical properties

Physical state: Crystals or crystalline powder

Color: Colorless to white

Odor: Odorless

Melting point/Freezing point: (decomposes)  $\geq 275^{\circ}\text{C}$

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Flammability (gases, liquids and solids) 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: 41.7g/100ml (good)

Solubility in solvent data is not available.

n-Octanol/water partition coefficient data is not available.

Vapor pressure: 1 Pa (20°C)

Density and/or relative density: 1.85

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

Deliquescent materials.

## Possibility of hazardous reactions

Decomposes on heating above 275°C. This produces toxic fumes. This generates fire and explosion hazard. Reacts with copper, lead, silver, mercury and carbon disulfide. This produces particularly shock-sensitive compounds. Reacts with acids. This produces toxic and explosive hydrogen azide. (ICSC 0950)

## Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

## Incompatible materials

Acids, Copper, Lead, Silver, Mercury, Carbon disulfide

## Hazardous decomposition products

Hydrogen azide

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**Section 11. Toxicological Information**

## Information on toxicological effects

## Acute toxicity

## Acute toxicity (Oral)

## [Product]

Category 2, Fatal if swallowed

## [Data for components of the product]

[GHS Cat. Japan, base data]

rat LD50=45mg/kg (DFGOT vol.20, 2003)

## Acute toxicity (Dermal)

## [Product]

Category 1, Fatal in contact with skin

## [Data for components of the product]

[GHS Cat. Japan, base data]

rabbit LD50=20mg/kg (ACGIH, 2001)

## Irritant properties

## Skin corrosion/irritation

## [Product]

Category 1, Causes severe skin burns and eye damage

## [Data for components of the product]

[GHS Cat. Japan, base data]

rabbit corrosive (DFGOT vol.20, 2003)

## Serious eye damage/irritation

## [Product]

Category 1, Causes serious eye damage

## [Data for components of the product]

[GHS Cat. Japan, base data]

Skin Corr. cat. 1

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

**Carcinogenicity**

[Data for components of the product]

[ACGIH]

A4(1996) : Not Classifiable as a Human Carcinogen

Reproductive toxicity data is not available.

**Specific target organ toxicity (STOT)**

STOT-single exposure

[Product]

Category 1, Causes damage to organs

[Data for components of the product]

[cat.1]

[GHS Cat. Japan, base data]

cardiovascular system, central nervous system, lungs, systemic toxicity (DFGOT vol.20, 2003; ACGIH, 2001)

STOT-repeated exposure

[Product]

Category 1, Causes damage to organs through prolonged or repeated exposure

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

[Data for components of the product]

[cat.1]

[GHS Cat. Japan, base data]

cardiovascular system, central nervous system (NTPTR 389, 1991)

[cat.2]

[GHS Cat. Japan, base data]

lungs (NTPTR 389, 1991)

Aspiration hazard data is not available.

**Information on other hazards**

May cause lung disorders by massive inhalation of powdered substance.

-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

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**Section 12. Ecological Information****Toxicity****Aquatic toxicity**

[Product]

Category 1, Very toxic to aquatic life

Category 1, Very toxic to aquatic life with long lasting effects

[Data for components of the product]

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

[GHS Cat. Japan, base data]

Algae (*Pseudokirchneriella subcapitata*) ErC50=0.348mg/L/96hr (Aquire, 2010)

**Water solubility**

good (41.7 g/100 ml, 17°C) (ICSC, 2014)

**Persistence and degradability**

[Data for components of the product]

Degradation measured by HPLC : 1% (METI existing chemical safety inspections)

**Bioaccumulative potential**

[Data for components of the product]

log Pow ≤ 0.3 (Check & Review, Japan)

**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**

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

**Waste treatment methods**

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**

UN Number or ID Number : 1687

UN Proper Shipping Name :

SODIUM AZIDE

Class or division (Transport hazard class) : 6.1

Packing group : II

ERG GUIDE No.: 153

**IMDG Code (International Maritime Dangerous Goods Regulations)**

UN Number or ID Number : 1687

UN Proper Shipping Name :

SODIUM AZIDE

Class or division (Transport hazard class) : 6.1

Packing group : II

**IATA (Dangerous Goods Regulations)**

UN Number or ID Number : 1687

UN Proper Shipping Name :

SODIUM AZIDE

Class or division (Transport hazard class) : 6.1

Hazard labels : Toxic

Packing group : II

**Environmental hazards**

Marine pollutants (yes/no) : yes

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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

Applicable

**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 22nd edit., 2021 UN  
IMDG Code, 2022 Edition (Incorporating Amendment 41-22)  
IATA Dangerous Goods Regulations (65th Edition) 2024  
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)  
2024 TLVs and BEIs. (ACGIH)  
JIS Z 7252 : 2019  
JIS Z 7253 : 2019  
2023 Recommendation on TLVs (JISOH)  
Supplier's data/information

## General Disclaimer

The Safety Data Sheet (SDS) is copyrighted material of KISHIDA CHEMICAL CO., LTD.  
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 Japan official data (NITE  
published in 2022).