

Hayashi Pure Chemical Ind.,Ltd. Date of issue: 6/25/2010 Revision date: 4/23/2024

SDS code: C5-07

Version: 07

# Safety Data Sheet

## 1. Chemical product and company identification

| Product name   | :            | Sodium sulfate   |
|--|--------------|--|
| SDS code   | :            | C5-07  |
| Company/undertaking<br>identification<br>HAYASHI PURE CHEMICAL<br>Address : 3-2-12 Uchihirano<br>Telephone : 06-6910-7305<br>E-mail : shiyaku_kikaku@hp<br>URL : https://www.hpc-j.co.jj | mao<br>oc-j. | chi, Chuo-ku, Osaka, Osaka, Japan  |
| Emergency number   | :            | 06-6910-7305   |
| Recommended use  | :            | For research and experimental use only.  |
| Restrictions on use  | :            | Do not use on a human body or for animal medicines, foods, household products, cosmetics, etc. |

## 2. Hazards identification

### **GHS** classification

| Physical hazards | Explosives   | No classification            |
|------------------|--|------------------------------|
| -                | Flammable gases  | No classification            |
|                  | Aerosol  | No classification            |
|                  | Oxidizing gases  | No classification            |
|                  | Gases under pressure   | No classification            |
|                  | Flammable liquids  | No classification            |
|                  | Flammable solids   | No classification            |
|                  | Self-reactive substances and mixtures                                    | No classification            |
|                  | Pyrophoric liquids   | No classification            |
|                  | Pyrophoric solids  | No classification            |
|                  | Self-heating substances and<br>mixtures                                  | No classification            |
|                  | Substances and mixtures which in contact with water emit flammable gases | No classification            |
|                  | Oxidizing liquids  | No classification            |
|                  | Oxidizing solids   | classification not possible  |
|                  | Organic peroxides  | No classification            |
|                  | Corrosive to metals  | classification not possible  |
|                  | Desensitized explosives  | No classification            |
| Health hazards   | Acute toxicity (oral)  | No classification            |
|                  | Acute toxicity (dermal)  | classification not possible  |
|                  | Acute toxicity (inhalation:gas)  | No classification            |
|                  | Acute toxicity (inhalation:vapors)                                       | classification not possible  |
|                  | Acute toxicity (inhalation:dust/mist)                                    | classification not possible  |
|                  | Skin corrosion/irritation  | No classification            |
|                  | Serious eye damage/eye irritation  | Category 2B                  |
|                  | Respiratory sensitization  | classification not possible  |
|                  | Skin sensitization   | No classification            |
|                  | Germ cell mutagenicity   | No classification            |
|                  | Carcinogenicity  | classification not possible  |
|                  | Reproductive toxicity  | classification not possible  |
|                  | Specific target organ toxicity (single exposure)                         | Category 1 (digestive tract) |

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|                                  | Specific targe<br>(repeated exp |      |                                    | No classification  |
|----------------------------------|---------------------------------|------|------------------------------------|--|
|                                  | Aspiration haz                  | zard | l                                  | classification not possible  |
| Environmental<br>hazards         | Hazardous to environment,       |      | aquatic<br>rt-term (acute)         | No classification  |
|                                  | Hazardous to environment,       |      | aquatic<br>g-term (chronic)        | No classification  |
|                                  | Hazardous to                    | the  | ozone layer                        | classification not possible  |
| Hazard<br>pictograms<br>(GHS JP) |                                 |      |                                    |  |
|                                  | GHS08                           |      |                                    |  |
| Signal word (GHS JP              | )                               | :    | Danger                             |  |
| Hazard statements (G             | GHS JP)                         | :    | Causes eye irrita<br>Causes damage | tion (H320)<br>to organs (digestive tract) (H370)  |
| Precautionary statem             | ents (GHS JP)                   |      |                                    |  |
| Prevention                       |                                 | :    | Wash hands, fore                   | ust/fume/gas/mist/vapors/spray. (P260)<br>earms and face thoroughly after handling. (P264)<br>or smoke when using this product. (P270) |
| Response                         |                                 | :    | contact lenses, if (P305+P351+P33  |  |
|                                  |                                 |      | (P308+P311)                        | ncerned: Call a POISON CENTER or doctor.<br>rsists: Get medical advice/attention. (P337+P313)  |
| Storage                          |                                 | :    | Store locked up.                   |  |
| Disposal                         |                                 | :    | Dispose of conter                  | nts/container to hazardous or special waste collection nce with local, regional, national and/or international                         |

## 3. Composition/information on ingredients

Distinction of substance or mixture : Substance

| Name           | Concentration or    | Formula | Kanpo   | CAS RN                            |           |
|----------------|---------------------|---------|---------|-----------------------------------|-----------|
| Name           | Concentration range | Tornula | CSCL no | ISHL no                           |           |
| Sodium sulfate | ≧99.0%, ≦100%       | Na2SO4  | (1)-501 | Existing<br>Chemical<br>Substance | 7757-82-6 |

The above concentration or concentration range are not product specification.

All percentages listed in the above concentration or concentration range are wt%, unless otherwise specified.

## 4. First aid measures

| First aid measures                      |   |  |
|---|---|--|
| First-aid measures after inhalation     | : | Remove person to fresh air and keep comfortable for breathing.   |
|   |   | Get immediate medical advice/attention.  |
| First-aid measures after skin           | : | Remove/Take off immediately all contaminated clothing.   |
| contact                                 |   | Gently wash with plenty of soap and water.   |
|   |   | Get immediate medical advice/attention.  |
| First-aid measures after eye<br>contact | : | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
|   |   | Get immediate medical advice/attention.  |
| First-aid measures after ingestion      | : | Rinse mouth.   |
|   |   | Get immediate medical advice/attention.  |

#### 5. Fire fighting measures Suitable extinguishing media Use proper extinguishing media depending on peripheral fire. : Unsuitable extinguishing media Do not use a heavy water stream. : Fire hazard : This product is unburnable. Hazardous decomposition products In case of fire, product may produce irritative or toxic fumes/gases. 1 in case of fire **Firefighting instructions** If ignited, for the initial fire-fighting, cut off combustion sources, extinguish : fire at a stroke using appropriate fire-extinguishers. In the case of peripheral fire, quickly remove movable containers to safe places. If unable to be moved containers, sprinkle water to containers and surrounding equipment, etc. to cool. Wear appropriate fire-resistant clothing including self contained-Protection during firefighting compressed air breathing apparatus. 6. Accidental release measures Personal Precautions, Protective Equipment and Emergency Procedures General measures Before entering, ventilate the area. Do not let unauthorized persons come close to the area. Immediately place the leakage area in isolation, with taking proper distances for all directions. Wear appropriate personal protective devices to prevent inhalation and contact with eye, skin, and clothing, and never attempt to work on the lee. **Environmental precautions** Environmental precautions Avoid release to the environment. Prevent entry to sewers and public waters. Methods and Equipment for Containment and Cleaning up Methods for cleaning up Take care not to generate dust, sweep it up as much as possible, collect it : in an empty container that can be sealed, and move it to a safe place. Wash out the spilled area with large amounts of water. 7. Handling and storage Handling **Technical measures** Work with appropriate personal protective equipment to prevent inhalation 2 or contact to eyes, skin, and clothing. Handle with care to prevent leakage, overflowing, or scattering, minimize generation of mist or vapor, and thoroughly ventilate. Precautions for safe handling Do not eat, drink or smoke when using this product. Thoroughly wash your hands and gargle after handling. Ensure good ventilation of the work station. Do not contact, breathe or swallow. Prevents handling of incompatible Avoid prolonged or repeated exposure. substances or mixtures Storage

| ntainer |
|---------|
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|         |
|         |
|         |

## 8. Exposure controls / Personal protection equipment

Appropriate engineering controls

: Cover up tightly the generation source at the handling place or install local exhaust equipment or overall ventilation equipment. Install safety showers and eye-fountains near a handling place. Clearly indicate the location.

#### **Protective equipment**

| Respiratory protection   | : Dustproof mask   |
|--------------------------|--|
| Hand protection          | : Impervious protective gloves   |
| Eye protection           | : Protective glasses (general glasses, glasses with side-shields, goggles) |
| Skin and body protection | : Impervious aprons, Impervious work clothing, Impervious long boots       |

## 9. Physical and chemical properties

| Physical state                                      | : | Solid   |
|---|---|---|
| Appearance  | : | Crystals ~ Crystalline powder                                       |
| Color   | : | colorless ~ white   |
| Odor  | : | Odorless  |
| рН  | : | No data available   |
| Melting point                                       | : | 884 °C  |
| Freezing point                                      | : | No data available   |
| Boiling point                                       | : | No data available   |
| Flash point   | : | No data available   |
| Auto-ignition temperature                           | : | No data available   |
| Decomposition temperature                           | : | No data available   |
| Flammability  | : | No data available   |
| Vapor pressure                                      | : | No data available   |
| Relative density                                    | : | No data available   |
| Density   | : | 1.46 g/cm <sup>3</sup>  |
| Relative gas density                                | : | No data available   |
| Solubility  | : | Easily soluble in water. Soluble in glycerol. Insoluble in alcohol. |
| Partition coefficient n-<br>octanol/water (Log Pow) | : | No data available   |
| Explosive limits (vol %)                            | : | No data available   |
| Viscosity, kinematic                                | : | No data available   |
| Particle characteristics                            | : | No data available   |

## 10. Stability and reactivity

| Reactivity                          | : | No data available  |
|-------------------------------------|---|--|
| Chemical stability                  | : | Stable under normal handling conditions. Hygroscopicity.   |
| Possibility of hazardous reactions  | : | When heated, it may decompose and produce sulfur oxides. Reacts with strong acids, strong oxidizing agents, aluminium and magnesium. |
| Conditions to avoid                 | : | Sunlight, moisture, heat. Contact with strong acids, strong oxidizing agents, aluminium and magnesium.                               |
| Incompatible materials              | : | Strong acids, Strong oxidizing agents, Aluminium, Magnesium  |
| Hazardous decomposition<br>products | : | Sulfur oxides, Sodium oxides   |

## 11. Toxicological information

The information in this section is based on the "GHS Classification Results" by NITE.

| Sodium sulfate                        |                             |
|---------------------------------------|-----------------------------|
| Acute toxicity (oral)                 | No classification           |
| Acute toxicity (dermal)               | classification not possible |
| Acute toxicity (gas)                  | No classification           |
| Acute toxicity (vapour)               | classification not possible |
| Acute toxicity (inhalation:dust/mist) | classification not possible |
| Skin corrosion/irritation             | No classification           |
| Serious eye damage/irritation         | Category 2B                 |
| Respiratory sensitization             | classification not possible |
| Skin sensitization                    | No classification           |
| Germ cell mutagenicity                | No classification           |
| Carcinogenicity                       | classification not possible |

| Sodium sulfate         |                             |
|------------------------|-----------------------------|
| Reproductive toxicity  | classification not possible |
| STOT-single exposure   | Category 1                  |
| STOT-repeated exposure | No classification           |
| Aspiration hazard      | classification not possible |

## 12. Ecological information

The information in this section is based on the "GHS Classification Results" by NITE.

| Sodium sulfate                                       |                             |
|--|-----------------------------|
| Hazardous to Aquatic Environment -<br>Acute Hazard   | No classification           |
| Hazardous to Aquatic Environment -<br>Chronic Hazard | No classification           |
| Persistence and degradability                        | No data available           |
| Bioaccumulative potential                            | No data available           |
| Mobility in soil                                     | No data available           |
| Hazardous to the ozone layer                         | classification not possible |

### 13. Disposal considerations

| Ecology - waste materials            | : | With the detail information of the waste, subcontract its disposal to a waste disposer authorized by a Prefectural Governor.                              |
|--------------------------------------|---|---|
| Contaminated container and packaging | : | Empty the packaging completely prior to disposal.<br>Empty containers should be taken for recycle, recovery or waste in accordance with local regulation. |

### **14. Transport information**

#### **International Regulations**

#### Transport by sea(IMDG)

| $\Delta$ ir transport(I $\Delta$ T $\Delta$ ) |   |
|---|---|
| Transport hazard class(es) (IMDG)             | : |
| Packing group (IMDG)                          | : |
| Proper Shipping Name (IMDG)                   | : |
| UN-No. (IMDG)                                 | : |
|   |   |

#### Air transport(IATA)

| UN-No. (IATA)                     |
|-----------------------------------|
| Proper Shipping Name (IATA)       |
| Packing group (IATA)              |
| Transport hazard class(es) (IATA) |
|                                   |

### Marine pollutant

#### **Regulations in Japan**

| Regulatory information by sea |  |
|-------------------------------|--|
| Regulatory information by air |  |
| Special transport precautions |  |

: Not applicable

Not applicable Not applicable Not applicable Not applicable

Not applicable

Not applicable Not applicable

Not applicable

Not applicable

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: Not applicable

: When transporting, load containers so that they do not tip over, damage, drop or collapse. Make sure there is no leak in containers.

### 15. Regulatory information

| National law   |   |   |
|--|---|---|
| Industrial Safety and Health Law                             | : | [Date of enforcement: April 1, 2025]<br>Dangerous or Harmful Substances for Labeling of Chemical Name<br>etc. (Act Art.57 Para.1, Enforcement Order, Art.18)<br>Dangerous or Harmful Substances for Notification of Chemical Name<br>etc. on SDS (Act, Art.57-2, Enforcement Order, Art.18-2)<br>Sodium sulfate |
| Japanese Poisonous and<br>Deleterious Substances Control Law | : | Not applicable  |
| Fire Service Law   | : | Not applicable  |
| Foreign Exchange and Foreign<br>Trade Control Act            | : | Export Trade Control Ordinance appendix 1-16  |

|                          | Sod             | ium sulfate |
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| Waterworks Law<br>Japanese Pollutant Release and<br>Transfer Register Law (PRTR Law)<br><b>16. Other information</b> | : | Hazardous Substances (Act Article 4 paragraph 2), Standard for<br>Water Quality (Ministry Order No.101 of 2003)<br>Not applicable  |
|--|---|--|
|  |   |  |
| Data sources   | : | Handbook of 17524 Chemical Products, The Chemical Daily Co, Ltd.<br>International Chemical Safety Cards.<br>National Institute of Technology and Evaluation (NITE).<br>2020 Emergency Response Guidebook (ERG 2020).   |
| Other information  | : | The SDS is copyrighted material of Hayashi Pure Chemical Ind, Ltd.<br>This Safety Data Sheet is intended to be provided for business<br>operators who handle chemical substance products of the relevant<br>product and is not intended to assure safety in any way. The Safety<br>Data Sheet does not verify all the information on the applicable<br>chemical substance in the present time. With the recognition in that<br>unknown danger constantly exists in the relevant chemical substance,<br>the product shall be used in the principle of self-responsibility of the<br>user with the highest priority to safety from transport and unpacking to<br>disposal. When the relevant chemical substance is used, the user<br>him/herself shall collect safety information and shall investigate laws<br>and regulations at the place, organizations, countries, etc. where the<br>substance is actually used and give the highest priority to them. The<br>Company shall take no responsibility for investigating state and local<br>regulations and the user shall handle this problem on his/her own<br>responsibility. In the event that SDS in Japanese and SDS translated<br>into other languages exist, the document described in Japanese is<br>prior to all other documents whether or not there is any difference in<br>contents, and documents in other languages shall be references. |