



Safety Data Sheet

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

Product identifier:

Product name: Sodium hydrosulfite

SDS No. : 7173E-2

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

Section 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS

Self-heating substances and mixtures: Category 1

HEALTH HAZARDS

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 1

Respiratory sensitization: Category 1

Skin sensitization: Category 1

ENVIRONMENT HAZARDS

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

Hazardous to the aquatic environment, long-term (chronic): Category 3

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

Label elements



Signal word: Danger

HAZARD STATEMENT

H251 Self-heating; may catch fire

H315 Causes skin irritation

H318 Causes serious eye damage

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317 May cause an allergic skin reaction

H412 Harmful to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

P273 Avoid release to the environment.

P235 Keep cool.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.



P284 In case of inadequate ventilation wear respiratory protection.

P264 Wash contaminated parts thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

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

Response

P310 Immediately call a POISON CENTER/doctor/physician.

P342 + P311 If experiencing respiratory symptoms: 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.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P362 + P364 Take off 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.

Storage

P407 Maintain air gap between stacks or pallets.

P413 Store bulk masses greater than specified value at temperatures not exceeding specified values.

P420 Store separately.

Disposal

P501 Dispose of contents/container in accordance with local/national regulation.

Specific adverse human health effects

See "11. Toxicological Information".

Section 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name	Content (%)	CAS No.	Chemicals No, Japan	Chemical formula
Sodium hydrosulfite	85(min)	7775-14-6	1-504	Na ₂ S ₂ O ₄

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

Impurities

Sodium disulfite <9.0% (CAS No.7681-57-4)

Sodium carbonate <3.0% (CAS No.497-19-8)

Section 4. First-aid measures

Descriptions of first-aid measures

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physician.

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.

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

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

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.

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.

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

Wash contaminated parts thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Take off contaminated clothing and wash it before reuse.

Storage

Conditions for safe storage

Keep container tightly closed.

Maintain air gap between stacks or pallets.

Store bulk masses greater than specified value at temperatures not exceeding specified values.

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

Storage in accordance with local/national regulation.

(Incompatible storage condition)

Store separately.

Container and packaging materials for safe handling

Use closed unbreakable containers.

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/m³, Total dust 8mg/m³

(Sodium disulfite)

ACGIH(1996) TWA: 5mg/m³ (URT irr)

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.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Crystalline powder

Color: White to gray

Odor data is not available.

Melting point/Freezing point data is not available.

Boiling point or initial boiling point: (Sodium hydrosulfite)(Decomposes) > 100°C

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: (Sodium hydrosulfite)(O.C.) > 100°C

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: moderate (25 g/100 ml, 20°C)

Solubility in solvent data is not available.

n-Octanol/water partition coefficient: log Pow < -4.7

Vapor pressure data is not available.

Density and/or relative density: 2.4 g/cm³

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

Particle characteristics data is not available.

Other information

Other information is not available.

Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Decompose on exposure to air and moisture.

Possibility of hazardous reactions

Decomposes above 100°C. This produces toxic fumes including sulfur oxides. The substance is a strong reducing agent. It reacts with oxidants. Decomposes on contact with acids. This produces toxic gases. Contact with water, moisture and moist air may cause spontaneous ignition. (ICSC 1717)

Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

Incompatible materials

Acids, Oxidizing agents, Water

Hazardous decomposition products

Sulfur oxides

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[Data for components of the product]

[GHS Cat. Japan, base data]

(Sodium hydrosulfite)

rat LD50=2500mg/kg (IUCILID, 2000)

(Sodium disulfite)

rat LD50=1540mg/kg (EPA Pesticides, 2007)

(Sodium carbonate)

rat LD50=2800mg/kg (SIDS, 2008)

Acute toxicity (Inhalation)

[Data for components of the product]

[GHS Cat. Japan, base data]

(Sodium carbonate)

mist: rat LC50=1.2mg/L/4hr (SIDS, 2008)

Irritant properties

Skin corrosion/irritation

[Product]

Category 2, Causes skin irritation

[Data for components of the product]

[GHS Cat. Japan, base data]

(Sodium hydrosulfite)

human severe irritation (HSFS, 2000)

Serious eye damage/irritation

[Product]

Category 1, Causes serious eye damage

[Data for components of the product]

[GHS Cat. Japan, base data]

(Sodium hydrosulfite)

rabbit irritation (IUCILID, 2000)

(Sodium disulfite)

rabbit eyes irritant (SIDS, 2001); EU CLP: Eyes Dam. 1, H318

(Sodium carbonate)

rabbit severe irreversible eyes damage (SIDS, Access on Jul. 2008)

Sensitization

Respiratory sensitization

[Product]

Category 1, May cause allergy or asthma symptoms or breathing difficulties if inhaled

[Data for components of the product]

[GHS Cat. Japan, base data]

(Sodium disulfite)

cat. 1; human : ACGIH 7th, 2001 et al.

Skin sensitization

[Product]

Category 1, May cause an allergic skin reaction

[Data for components of the product]

[GHS Cat. Japan, base data]



(Sodium disulfite)

cat. 1; human : HSDB, 2011 et al.

Mutagenic effects data is not available.

Carcinogenicity

[Data for components of the product]

[ACGIH]

(Sodium disulfite)

A4(1996) : Not Classifiable as a Human Carcinogen

Reproductive toxicity data is not available.

Specific target organ toxicity (STOT)

STOT-single exposure

[Data for components of the product]

[cat.3 (respiratory tract irritation)]

[GHS Cat. Japan, base data]

(Sodium disulfite)

respiratory tract irritation (HSDB, 2013)

(Sodium carbonate)

respiratory tract irritation (SIDS, 2008)

[cat.3 (narcotic effects)]

[GHS Cat. Japan, base data]

(Sodium carbonate)

narcotic effect (SIDS, 2008)

STOT-repeated exposure data is not available.

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

Section 12. Ecological Information

Toxicity

Aquatic toxicity

[Product]

Category 3, Harmful to aquatic life

Category 3, Harmful 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]

(Sodium hydrosulfite)

Fish (Cyprinus carpio) LC50=63.2mg/L/96hr (OECD SIDS, 2004)

(Sodium disulfite)

Algae (Scenedesmus subspicatus) EC50=48.1mg/L/72hr (SIDS, 2004)

(Sodium carbonate)

Crustacea (Daphnia) EC50=250mg/L/48hr (SIDS 2002)

Water solubility

(Sodium hydrosulfite)

moderate (25°C) (ICSC, 2008)

(Sodium disulfite)

54 g/100 ml (ICSC, 2002)



(Sodium carbonate)

0.53 g/100 ml (PHYSPROP_DB 2008)

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

[Data for components of the product]

(Sodium hydrosulfite)

log Pow < -4.7 (ICSC, 2008)

(Sodium disulfite)

log Pow = -3.7 (ICSC, 2002)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

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.

Section 14. Transport Information

UN Number or ID Number : 1384

UN Proper Shipping Name :

SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

Class or division (Transport hazard class) : 4.2

Packing group : II

ERG GUIDE No.: 135

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : 1384

UN Proper Shipping Name :

SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

Class or division (Transport hazard class) : 4.2

Packing group : II

IATA (Dangerous Goods Regulations)

UN Number or ID Number : 1384

UN Proper Shipping Name :

SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

Class or division (Transport hazard class) : 4.2

Hazard labels : Spont. comb.

Packing group : II

Environmental hazards

Marine pollutants (yes/no) : no



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 carbonate; Sodium disulfite; Sodium hydrosulfite

Other regulatory information

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

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 (JSOH)

Supplier's data/information

General Disclaimer

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).