

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
**Revision date** 26-Feb-2024  
 Revision Number 2.05

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	Sodium Hydrosulfite
<b>Product Code</b>	194-14465

<b>Supplier</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-2029
<b>Emergency telephone number</b>	+81-6-6203-3741 / +81-3-3270-8571
<b>Recommended uses</b>	For research use only
<b>Restrictions on use</b>	Seek expert judgment when using for purposes other than those recommended.

## Section 2: HAZARDS IDENTIFICATION

**GHS classification****Classification of the substance or mixture****Self-heating substances and mixtures**

Category 1

**Skin corrosion/irritation**

Category 2

**Serious eye damage/eye irritation**

Category 1

**Respiratory sensitization**

Category 1

**Skin sensitization**

Category 1

**Acute aquatic toxicity**

Category 3

**Chronic aquatic toxicity**

Category 3

**Pictograms**

Signal word

Danger

**Hazard statements**

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

H402 - Harmful to aquatic life

**Precautionary statements-(Prevention)**

- Wash face, hands and any exposed skin thoroughly after handling
- In case of inadequate ventilation wear respiratory protection
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Contaminated work clothing should not be allowed out of the workplace
- Avoid release to the environment
- Keep cool. Protect from sunlight
- Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary statements-(Response)**

- 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 or doctor/physician
- Take off contaminated clothing and wash before reuse
- IF ON SKIN: Wash with plenty of soap and water
- If skin irritation or rash occurs: Get medical advice/attention
- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

**Precautionary statements-(Storage)**

- Maintain air gap between stacks/pallets
- Store away from other materials

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant

**Others**

**Other hazards** Not available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Mixture

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
Sodium dithionite	85-95	174.11	(1)-504	*	7775-14-6
Sodium Disulfite	1-10	190.11	(1)-502	*	7681-57-4
Sodium Carbonate	1-5	105.99	(1)-164	*	497-19-8

**Note on ISHL No.:** \* in the table means announced chemical substances.

### Section 4: FIRST AID MEASURES

**Inhalation**

Remove to fresh air. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

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

**Ingestion**

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Protection of first-aiders**

Use personal protective equipment as required.

### Section 5: FIRE FIGHTING MEASURES

**Suitable extinguishing media**

Flood with water, DRY sand, Dry chemical, soda ash or lime

**Unsuitable extinguishing media**

Water spray, Foam, Carbondioxide

**Specific hazards arising from the chemical product**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Special extinguishing method**

No information available

**Special protective actions for fire-fighters**

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full

firefighting turnout gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

### Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

### Methods and materials for contaminant and methods and materials for cleaning up

Sweep up and gather scattered particles, and collect it in an empty airtight container.

### Recovery, neutralization

No information available

### Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

### Handling

#### Technical measures

Avoid contact with strong oxidizing agents. Avoid contact with water and moisture. Avoids contact with acids. Use with local exhaust ventilation.

#### Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

#### Safety handling precautions

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

### Storage

#### Safe storage conditions

##### Storage conditions

Store away from sunlight in well-ventilated place at room temperature (preferably cool).  
Keep container tightly closed. Packed with an inert gas.

##### Safe packaging material

Polypropylene

#### Incompatible substances

Strong oxidizing agents, Water, Acids, Sodium Chloride

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

### Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Sodium Disulfite 7681-57-4	N/A	N/A	TWA: 5 mg/m <sup>3</sup>

### Personal protective equipment

#### Respiratory protection

Dust mask ( JIS T 8151 )

#### Hand protection

chemical protective gloves ( JIS T 8116 )

#### Eye protection

protective eyeglasses or chemical safety goggles (JIS T 8147)

#### Skin and body protection

Long-sleeved work clothes

### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.  
If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protective equipment to them.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	
<b>Color</b>	white
<b>Appearance</b>	powder
<b>Odor</b>	Pungent odor
<b>Melting point/freezing point</b>	52 °C (dec.)
<b>Boiling point, initial boiling point and boiling range</b>	no data available
<b>Flammability</b>	no data available
<b>Evaporation rate:</b>	no data available
<b>Flammability (solid, gas):</b>	no data available
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper:</b>	no data available
<b>Lower:</b>	no data available
<b>Flash point</b>	no data available
<b>Auto-ignition temperature:</b>	no data available
<b>Decomposition temperature:</b>	no data available
<b>pH</b>	5.5 - 8.5 (50g/L)
<b>Viscosity (coefficient of viscosity)</b>	no data available
<b>Dynamic viscosity</b>	no data available
<b>Solubilities</b>	water : freely soluble . Ethanol : soluble .
<b>n-Octanol/water partition coefficient:(log Pow)</b>	no data available
<b>Vapour pressure</b>	no data available
<b>Specific Gravity / Relative density</b>	2.4 g/cm <sup>3</sup>
<b>Vapour density</b>	no data available
<b>Particle characteristics</b>	no data available

## Section 10: STABILITY AND REACTIVITY

### Stability

<b>Reactivity</b>	React with a small amount of water
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Hazardous reactions</b>	None under normal processing
<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight, Moisture
<b>Incompatible materials</b>	Strong oxidizing agents, Water, Acids, Sodium Chloride
<b>Hazardous decomposition products</b>	Na <sub>2</sub> O, Sulfur oxides (SO <sub>x</sub> )

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium dithionite	2500 mg/kg ( Rat )	N/A	N/A
Sodium Disulfite	1540 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	N/A
Sodium Carbonate	2,800 mg/kg ( Rat )	>2,000 mg/kg ( Rabbit )	1.2 mg/L ( Rat ) 4 h

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Sodium dithionite	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Sodium Disulfite	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
Sodium dithionite	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS Classification results.

**Skin irritation/corrosion**

Chemical Name	Skin corrosion/irritation source information
Sodium dithionite	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.

**Serious eye damage/ irritation**

Chemical Name	Serious eye damage/irritation source information
Sodium dithionite	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.

**Respiratory or skin sensitization**

Chemical Name	Respiratory or Skin sensitization source information
Sodium dithionite	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

Chemical Name	germ cell mutagenicity source information
Sodium dithionite	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.

**Carcinogenicity**

Chemical Name	Carcinogenicity source information
Sodium dithionite	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Sodium Disulfite 7681-57-4	-	Group 3	-	-

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
Sodium dithionite	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
Sodium dithionite	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
Sodium dithionite	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
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Sodium dithionite	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.

## Section 12: ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium dithionite	<i>EC50 : Desmodesmus subspicatus</i> 120 mg/L 72 h <i>EC50 : Desmodesmus subspicatus</i> 87 mg/L 96 h	<i>LC50 : Cyprinus carpio</i> 63.2 mg/L 96 h	<i>EC50 : Daphnia magna Straus</i> 98 mg/L 48 h
Sodium Disulfite	<i>EC50 : Scenedesmus subspicatus</i> 48.1 mg/L 72 h	<i>LC50: Lepomis macrochirus</i> 32 mg/L 96 h	<i>EC50: Daphnia magna</i> 88.76 mg/L 48 h
Sodium Carbonate	<i>EC50 : Nitzschia</i> 242 mg/L 120 h	<i>LC50 : Lepomis macrochirus</i> 300 mg/L 96 h	<i>EC50 : Daphnia magna</i> 250 mg/L 48 h

### Other data

Chemical Name	Short-term (acute) hazardous to the aquatic environment source information	Long-term (chronic) hazardous to the aquatic environment source information
Sodium dithionite	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium Disulfite	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium Carbonate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

<b>Persistence and degradability</b>	No information available
<b>Bioaccumulative potential</b>	No information available
<b>Mobility in soil</b>	No information available
<b>Hazard to the ozone layer</b>	No information available

## Section 13: DISPOSAL CONSIDERATIONS

### Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14: TRANSPORT INFORMATION

### ADR/RID

<b>UN number</b>	UN1384
<b>Proper shipping name:</b>	Sodium dithionite
<b>UN classification</b>	4.2
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	II
<b>Marine pollutant</b>	Not applicable

### IMDG

<b>UN number</b>	UN1384
<b>Proper shipping name:</b>	Sodium dithionite
<b>UN classification</b>	4.2
<b>Subsidiary hazard class</b>	

**Packing group** II  
**Marine pollutant (Sea)** Not applicable  
**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** No information available

**IATA**

**UN number** UN1384  
**Proper shipping name:** Sodium dithionite  
**UN classification** 4.2  
**Subsidiary hazard class**  
**Packing group** II  
**Environmentally Hazardous Substance** Not applicable

## Section 15: REGULATORY INFORMATION

**Japanese regulations**

**Fire Service Act** Not applicable  
**Poisonous and Deleterious Substances Control Law** Not applicable  
**Industrial Safety and Health Act** Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57)  
 Notifiable Substances (Law Art.57-2)  
 Dangerous Substances - Ignitable Substance (Enforcement Order Attached Table 1 Item 2)  
**Industrial Safety and Health Act (2024-)** 【2024.4.1~】 Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1)  
**Regulations for the carriage and storage of dangerous goods in ship** Substances liable to spontaneous combustion.  
**Civil Aeronautics Law** Substances liable to spontaneous combustion.  
**Pollutant Release and Transfer Register Law (2023.4.1-)** Not applicable  
**Water Pollution Control Act** Not applicable  
**Export Trade Control Order** Not applicable

Chemical Name	Poisonous and Deleterious Substances Control Law	Industrial Safety and Health Act Substances (Law Art.57-2)	Pollutant Release and Transfer Register Law (2023.4.1-)
Sodium Disulfite 7681-57-4 ( 1-10 )	-	Applicable	-

## Section 16: OTHER INFORMATION

**Key literature references and sources for data etc.**

NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
 IATA dangerous Goods Regulations  
 RTECS:Registry of Toxic Effects of Chemical Substances  
 Japan Industrial Safety and Health Association GHS Model SDS  
 Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.  
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
 etc

**Record of SDS revisions**

The following contents were revised. Regulatory information.

**Disclaimer**

This SDS is according to JIS Z 7253: 2019. 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, 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.

GHS Classification is according to JIS Z 7252:2019. \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**