

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	Sodium Sulfide Nonahydrate
<b>Product code</b>	197-03362,191-03365
<b>CAS No</b>	1313-84-4
<b>Formula</b>	Na <sub>2</sub> S·9H <sub>2</sub> O
<b>Manufacturer</b>	Wako Pure Chemical Industries, Ltd. 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81 (0)6-6203-3741 Fax: +81 (0)6-6201-5964
<b>Supplier</b>	Wako Pure Chemical Industries, Ltd. 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81 (0)6-6203-3741 Fax: +81 (0)6-6201-5964
<b>Emergency telephone number</b>	+81-6-6203-3741 / +81-3-3270-8571
<b>Recommended uses and restrictions on use</b>	For research purposes

## Section 2: HAZARDS IDENTIFICATION

**GHS classification**

Classification of the substance or mixture

**Self-Heating Substances and Mixtures**

Category 1

**Acute toxicity - Oral**

Category 3

**Skin corrosion/irritation**

Category 1 A

**Serious eye damage/eye irritation**

Category 1

**Specific target organ toxicity (single exposure)**

Category 2

Category 2 respiratory system

**aquatic environment (acute hazard)**

Category 1

**Pictograms**



**Signal word**

Danger

**Hazard statements**

H251 - Self-heating: may catch fire

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H301 - Toxic if swallowed

H400 - Very toxic to aquatic life

H371 - May cause damage to the following organs: respiratory system

**Precautionary statements-(Prevention)**

- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid release to the environment
- Keep cool. Protect from sunlight

**Precautionary statements-(Response)**

- Immediately call a POISON CENTER or doctor/physician
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Wash contaminated clothing before reuse.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Rinse mouth.
- Do NOT induce vomiting.
- Collect spillage

**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** Substance

**Formula** Na<sub>2</sub>S·9H<sub>2</sub>O

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS No
Sodium Monosulfide Nonahydrate	98.0-102.0%	240.18	1-514	N/A	1313-84-4

**Impurities and/or Additives :** Not applicable

### 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

**Unsuitable extinguishing media**

No information available

**Special extinguishing method**

No information available

**Specific hazards arising from the chemical product**

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

**Protection of 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**

Do not touch spilled material without suitable protection(See section 8). After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

**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 eyes and skin Avoid contact with acidic substances 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**

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

**Storage**

**Safe storage conditions**

**Storage conditions**

Keep container protect from light tightly closed. Store in a cool (2-10 degree C) place.

**Safe packaging material**

Glass

**Incompatible substances**

Strong oxidizing agents, Acids

## 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**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Personal protective equipment**

**Respiratory protection**

Dust mask

<b>Hand protection</b>	Protection gloves
<b>Eye protection</b>	protective eyeglasses or chemical safety goggles
<b>Skin and body protection</b>	Long-sleeved work clothes
<b>General hygiene considerations</b>	
Handle in accordance with good industrial hygiene and safety practice.	

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	
<b>Color</b>	white - pale yellow
<b>Appearance</b>	crystals or mass
<b>Odor</b>	characteristic odor
<b>pH</b>	No data available
<b>Melting point/freezing point</b>	No data available
<b>Boiling point, initial boiling point and boiling range</b>	No data available
<b>Flash point</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>Vapour pressure</b>	No data available
<b>Vapour density</b>	No data available
<b>Specific Gravity (relative density)</b>	1.427
<b>Solubilities</b>	water : Very soluble.
<b>n-Octanol/water partition coefficient:(log Pow)</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity (coefficient of viscosity)</b>	No data available
<b>Dynamic viscosity</b>	No data available

## Section 10: STABILITY AND REACTIVITY

### Stability

<b>Stability</b>	May be altered by light.
<b>Reactivity</b>	No data available

### Hazardous reactions

None under normal processing

### Conditions to avoid

Extremes of temperature and direct sunlight, Moisture

### Incompatible materials

Strong oxidizing agents, Acids

### Hazardous decomposition products

Sulfur oxides (SOx), Hydrogen sulfide gas

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

Component	Acute toxicity -oral- source information	Based on the NITE GHS classification results.	Acute toxicity -inhalation gas- source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	LD50(ori,rat):208mg/kg(RTECS, IUCRID(2000), HSDB ), LD50(ori,rat):254mg/kg(IUCRID(2000)).	LD50(skn,rabbit):<340mg/kg(IUCRID(2000))	Based on the NITE GHS classification results.

Component	Acute toxicity -inhalation vapor-source information	Acute toxicity -inhalation dust-source information	Acute toxicity -inhalation mist-source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

**Skin irritation/corrosion**

Component	Skin corrosion irritation source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	Based on the NITE GHS classification results.

**Serious eye damage/ irritation**

Component	Serious eye damage source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	Based on the NITE GHS classification results.

**Respiratory or skin sensitization**

Component	Respiratory, Skin sensitization source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

Component	Mutagenic source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	Based on the NITE GHS classification results.

**Carcinogenicity**

Component	Carcinogenicity source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	Based on the NITE GHS classification results.

**Reproductive toxicity**

Component	Reproductive toxicity source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	Based on the NITE GHS classification results.

**STOT-single exposure**

Component	STOT -single exposure- source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Component	STOT -repeated exposure- source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	Based on the NITE GHS classification results.

**Aspiration hazard**

Component	Aspiration Hazard source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	Based on the NITE GHS classification results.

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity****Other data**

Component	Aquatic toxicity -Acute- source information	Aquatic toxicity -Chronic- source information
Sodium Monosulfide Nonahydrate 1313-84-4 ( 98.0-102.0% )	EC50(Water flea):550µg/L/48h(AQUIRE, 2003).	Based on the NITE GHS classification results.

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available

**Mobility in soil**

No information available

**Hazard to the ozone layer**

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>	UN1849
<b>Proper shipping name:</b>	SODIUM SULPHIDE, HYDRATED
<b>UN classification</b>	8
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	II
<b>ERG Code</b>	8L
<b>Marine pollutant</b>	Yes

**IMDG**

<b>UN number</b>	UN1849
<b>Proper shipping name:</b>	SODIUM SULPHIDE, HYDRATED
<b>UN classification</b>	8
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	II
<b>EmS-No</b>	F-A, S-B
<b>Marine pollutant (Sea)</b>	Yes

**IATA**

<b>UN number</b>	UN1849
<b>Proper shipping name:</b>	SODIUM SULPHIDE, HYDRATED
<b>UN classification</b>	8
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	II
<b>Environmentally Hazardous Substance</b>	Yes

## Section 15: REGULATORY INFORMATION

International Inventories

<b>EINECS/ELINCS</b>	-
<b>TSCA</b>	-

Japanese regulations

<b>Fire Service Act</b>	Not applicable
<b>Poisonous and Deleterious Substances Control Law</b>	Not applicable
<b>Industrial Safety and Health Act</b>	Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18) Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.611
<b>Regulations for the carriage and storage of dangerous goods in ship</b>	Corrosive Substances (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
<b>Civil Aeronautics Law</b>	Corrosive Substances (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)
<b>Pollutant Release and Transfer Register Law</b>	Not applicable
<b>Export Trade Control Order Appendix 1-No.</b>	Appendix 1 3-1

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## Section 16: OTHER INFORMATION

### Literature and references

#### Revision Note

No information available

### Disclaimer

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 Z7252(2010). \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**