

## Safety Data Sheet

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

#### Product identifier:

Product name: Sodium Bisulfite

Reference number(SDS):12581jis\_E-2

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

Relevant identified uses of the product: Pharmaceuticals raw materials

Uses advised against: This product conform to JP (Japanese Pharmacopoeia). Do not use for other purposes.

#### Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-cho, Koshigaya-shi, Saitama 343-0844, Japan

Division: Quality Assurance Department

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### 2. Hazards identification

#### GHS classification and label elements of the product

#### Classification of the substance or mixture

##### HEALTH HAZARDS

Acute toxicity (Oral): Category 4

Respiratory sensitization: Category 1

Skin sensitization: Category 1

Specific target organ toxicity – single exposure: Category 3 (Respiratory tract irritation)

Specific target organ toxicity – repeated exposure: Category 1 (respiratory system)

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

#### Label elements



Signal word: Danger

#### HAZARD STATEMENT

H302-Harmful if swallowed

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

H317-May cause an allergic skin reaction

H335-May cause respiratory irritation

H372-Causes damage to organs through prolonged or repeated exposure

#### PRECAUTIONARY STATEMENT

##### Prevention

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

In case of inadequate ventilation wear respiratory protection. (as specified by the manufacturer/supplier or the competent authority.)

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Wear protective gloves.

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

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

**Response**

- Get medical advice/attention if you feel unwell.
- Call a POISON CENTER or doctor/physician if you feel unwell.
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation or rash occurs: Get medical advice/attention.
- Take off contaminated clothing and wash it before reuse.
- IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

**Storage**

- Store in a well-ventilated place. Keep container tightly closed.
- Store locked up.

**Disposal**

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

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**3. Composition/information on ingredients****Mixture/Substance selection:****Mixture**

Chemical identification: This product is a mixture of sodium hydrogensulfite and sodium metabisulfite.

This product's content(%) : (as SO<sub>2</sub>) 64.0~67.4 <

Common name, synonyms: Sodium Hydrogen Sulfite

Ingredient name: Sodium hydrogensulfite

Chemical formula: HNaO<sub>3</sub>S

Chemicals No, Japan: 1-502

CAS No.: 7631-90-5

MW: 104.05

ECNO: 231-548-0

Ingredient name: Sodium metabisulfite

Chemical formula: Na<sub>2</sub>O<sub>5</sub>S<sub>2</sub>

Chemicals No, Japan: 1-502

CAS No.: 7681-57-4

MW: 190.09

ECNO: 231-673-0

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**4. First-aid measures****Descriptions of first-aid measures****General measures**

- Get medical attention/advice if you feel unwell.

**IF INHALED**

- Remove person to fresh air and keep comfortable for breathing.
- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- Call a POISON CENTER or doctor/physician if you feel unwell.

**IF ON SKIN (or hair)**

- Take off immediately all contaminated clothing. Rinse skin with water/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 or doctor/physician if you feel unwell.

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**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

Use appropriate extinguishing media suitable for surrounding facilities.

The product is non-flammable.

Unsuitable extinguishing media data is not available.

**Specific hazards arising from the substance or mixture**

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

**Advice for firefighters****Specific fire-fighting measures**

Evacuate non-essential personnel to safe area.

**Special protective equipment and precautions for fire-fighters**

Wear fire/flame resistant/retardant clothing.

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

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

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**6. Accidental release measures****Personnel precautions, protective equipment and emergency procedures**

Keep unauthorized personnel away.

In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

**PUBLIC SAFETY:** Ventilate closed spaces before entering.

**Environmental precautions**

Avoid release to headsprings, rivers, lakes, ocean and groundwater.

**Methods and materials for containment and cleaning up**

Sweep up, place in a bag and hold for waste disposal.

Do NOT absorb in saw-dust or other combustible absorbents.

**Preventive measures for secondary accident**

Collect spillage.

Stop leak if you can do it without risk.

Prevent entry into waterways, sewers, basements or confined areas.

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**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/sparks/open flames/hot surfaces. – No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing or face protection.

Wear protective gloves.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

Any incompatibilities

Acids, Bases, Strong oxidizing agents should not be mixed with the chemicals.

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

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

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

Store in a well-ventilated place. Keep container tightly closed.

Keep cool. Protect from sunlight.

Store locked up.

Container and packaging materials for safe handling data is not available.

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## 8. Exposure controls/personal protection

Control parameters

Control value in MHLW is not available.

Adopted value

(Sodium hydrogensulfite)

Adopted value in JSOH is not available.

ACGIH(1992) TWA: 5mg/m<sup>3</sup> (Skin, eye & URT irr)

(Sodium metabisulfite)

Adopted value in JSOH is not available.

ACGIH(1992) TWA: 5mg/m<sup>3</sup> (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

Respiratory protection

Wear respiratory protection.

Hand protection

Wear protective gloves.

Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

Eye protection

Wear chemical safety goggle.

Wear eye/face protection.

Skin and body protection

Wear impervious clothing and boots in case of repeated or prolonged treatment.

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## 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Granules or powder

Color: White

Odor: odor of sulfur dioxide

Odor threshold data is not available.

Melting point/Freezing point data is not available.

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Flammability (gases, liquids and solids): Non-flammable

Lower and upper explosion limit/flammability limit data is not available.

Flash point: Non-flammable

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

Self-Accelerating Decomposition Temperature/SADT data is not available.

pH: Acidic [aqueous solution(1→20)]

Dynamic viscosity data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Freely soluble.

Solubility in solvent: Practically insoluble in ethanol(95) and in diethyl ether.

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

Vapor pressure data is not available.

Vapor density data is not available.

VOC data is not available.

Evaporation rate data is not available.

Density and/or relative density data is not available.

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

Relative density of the Vapor/air - mixture at 20°C (Air = 1) data is not available.

Critical temperature data is not available.

No Particle characteristics data is not available.

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## 10. Stability and Reactivity

Reactivity

Reactivity data is not available.

Chemical stability

Stable under normal storage/handling conditions.

This product is slowly affected by air or by light.

Possibility of hazardous reactions

Possibility of hazardous reactions data is not available.

Conditions to avoid

Contact with incompatible materials.

Heat. Air. Light.

Incompatible materials

Acids, Bases, Strong oxidizing agents

Hazardous decomposition products

Sulfur oxides, Sodium oxides.

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## 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Sodium hydrogensulfite) rat LD50 =1310mg/kg (avg.)

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

Labor standard law, Japan; Toxic

Sodium metabisulfite

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation

[GHS Cat. Japan, base data]

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

Sensitization

Respiratory sensitization

[GHS Cat. Japan, base data]

(Sodium hydrogensulfite) cat.1; expert judgment

(Sodium metabisulfite) cat. 1; human : ACGIH 7th, 2001 et al.

Skin sensitization

[GHS Cat. Japan, base data]

(Sodium hydrogensulfite) cat.1; expert judgment

(Sodium metabisulfite) cat. 1; human : HSDB, 2011 et al.

Mutagenic effects data is not available.

Carcinogenicity

(Sodium hydrogensulfite)

ACGIH-A4(1992) : Not Classifiable as a Human Carcinogen

(Sodium metabisulfite)

ACGIH-A4(1992) : Not Classifiable as a Human Carcinogen

Reproductive toxicity data is not available.

STOT

STOT-single exposure

[cat.3 (resp. irrit.)]

[GHS Cat. Japan, base data]

(Sodium hydrogensulfite) Respiratory tract irritation (Inter-ministerial Committee on GHS)

(Sodium metabisulfite) respiratory tract irritation (HSDB, 2013)

STOT-repeated exposure

[cat.1]

[GHS Cat. Japan, base data]

(Sodium hydrogensulfite) respiratory system (ACGIH, 2001)

Aspiration hazard data is not available.

Additional data

Data on the preparation itself is not available.

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## 12. Ecological Information

Ecotoxicity

Aquatic toxicity

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

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

Water solubility

(Sodium metabisulfite) 54 g/100 ml (ICSC, 2002)

**Persistence and degradability**

Persistence and degradability data is not available.

**Bioaccumulative potential**

(Sodium metabisulfite) 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.

**Additional data**

Data on the preparation itself is not available.

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**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**

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

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**14. Transport Information**

Not applicable to UN No., UN CLASS

**Environmental hazards**

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) :

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**15. Regulatory Information**

Safety, health and environmental regulations/legislation specific for the substance or mixture

**Environmental hazards**

MARPOL Annex V – Prevention of pollution by garbage discharge

Specific target organ toxicity – repeated exposure: cat.1

Sodium hydrogensulfite

**US Federal Regulations**

Chemicals listed in TSCA Inventory

Sodium hydrogensulfite; Sodium metabisulfite

**Other regulatory information**

We are not able to check up the regulatory information with regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

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

Regulatory information in this section are limited to intentional ingredient(s), but does not contain information on non-intentional ingredients or impurities which are not informed by supplier(s).

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**16. Other information****GHS classification and labelling**

H302–Acute Tox. 4: H302 Harmful if swallowed

H334–Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317–Skin Sens. 1: H317 May cause an allergic skin reaction

H335–STOT SE 3: H335 May cause respiratory irritation

H372–STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure

**Reference Book**

Globally Harmonized System of classification and labelling of chemicals, (7th revised edition, 2017), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN IMDG Code, 2018 Edition (Incorporating Amendment 39-18)  
IATA Dangerous Goods Regulations (61th Edition) 2020  
Classification, labelling and packaging of substances and mixtures (Table 3 ECNO6182012)  
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)  
2020 TLVs and BEIs. (ACGIH)  
<http://monographs.iarc.fr/ENG/Classification/index.php>  
JIS Z 7252 : 2019  
JIS Z 7253 : 2019  
2019 Recommendation on TLVs (JSOH)  
Supplier's data/information  
Chemicals safety data management system "GHS Assistant" Version 4.09 (<https://www.asahi-ghs.com/>)  
NITE Chemical Risk Information Platform "NITE-CHRIP"  
([https://www.nite.go.jp/en/chem/chrip/chrip\\_search/systemTop](https://www.nite.go.jp/en/chem/chrip/chrip_search/systemTop))  
GHS Classification Guidance for Enterprises 2019 Revised Edition (Ver. 2.0) (Mar. 2020, METI)

**Definitions and Abbreviations**

SDS (Safety Data Sheet)  
LD50 (Lethal Dose, 50%)  
LC50 (Lethal Concentration, 50%)  
IARC (International Agency for Research on Cancer)  
ACGIH (American Conference of Governmental Industrial Hygienists)  
EPA (US Environmental Protection Agency)  
NTP (US National Toxicology Program)  
JSOH (Japan Society for Occupational Health)  
EU (European Union)  
EC50 (Effective Concentration, 50%)  
NOEC (No Observed Effect Concentration)  
BOD (Biochemical Oxygen Demand)  
COD (Chemical Oxygen Demand)  
BCF (Bioconcentration Factor)

**General Disclaimer**

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 2019).