



Safety Data Sheet

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

Product identifier:

Product name: Sodium hydrogen sulfite

SDS No. : 7170E-2

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN

Division: Safety Management Dept. of Chemicals

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification

GHS classification and label elements of the product**Classification of the substance or mixture****HEALTH HAZARDS**

Acute toxicity (Oral): Category 4

Serious eye damage/eye irritation: Category 1

Respiratory sensitization: Category 1

Skin sensitization: Category 1

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

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Acute): Category 3

Hazardous to the aquatic environment (Long-term): Category 3

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

Label elements

Signal word: Danger

HAZARD STATEMENT

Harmful if swallowed

Causes serious eye damage

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

May cause respiratory irritation

Harmful to aquatic life

Harmful to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT**Prevention**

Avoid release to the environment.

Avoid breathing 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.

Wear eye protection/face protection.

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

Response

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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Rinse mouth.

Storage

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

Disposal

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

3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name: Sodium hydrogen sulfite

Content (%): <100

Chemical formula: NaHSO₃

Chemicals No, Japan: 1-502

CAS No.: 7631-90-5

MW: -

ECNO: 231-548-0

Ingredient name: Sodium disulfite

Content (%): <100

Chemical formula: Na₂O₅S₂

Chemicals No, Japan: 1-502

CAS No.: 7681-57-4

MW: 190.11

ECNO: 231-673-0

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

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 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.

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

Use appropriate extinguishing media suitable for surrounding facilities.

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.

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.

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

Ventilate area until material pick up is complete.

Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

Avoid raising dust.

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.

7. Handling and storage**Precautions for safe handling****Preventive measures**

(Exposure Control for handling personnel)

Avoid breathing 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 eye protection/face protection.

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.

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**

Keep container tightly closed.

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

Container and packaging materials for safe handling

Polyethylene

8. Exposure controls/personal protection**Control parameters****Adopted value**

(Sodium hydrogen sulfite)

ACGIH(1992) TWA: 5mg/m³ (Skin, eye & URT irr)

(Sodium disulfite)

ACGIH(1992) 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**Respiratory protection**

Wear respiratory protection.

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

9. Physical and Chemical Properties**Information on basic physical and chemical properties**

Physical state: Powder or crystalline powder

Color: White

Odor: Characteristic odor

Melting point/Freezing point: (decompose) 150°C

Boiling point or initial boiling point data is not available.

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 data is not available.

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: Soluble

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



Vapor pressure data is not available.
Density and/or relative density: 1.48 g/cm³
Relative vapor density (Air=1) data is not available.
No Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

(Sodium hydrogen sulfite)

Decomposes on heating and on contact with acids. This produces sulfur oxides. Reacts with acids and strong oxidants. This generates fire hazard. The substance is a weak acid.

Attacks metals. (ICSC 1134)

(Sodium disulfite)

Decomposes on heating. This produces sulfur oxides. The substance is a strong reducing agent. It reacts violently with oxidants. Reacts violently with concentrated solution of sodium nitrite. Decomposes on contact with acids. This produces sulfur oxides. (ICSC 1461)

Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

Incompatible materials

Acids, Oxidizing agents, Solution of sodium nitrite

Hazardous decomposition products

Sulfur oxides

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Sodium disulfite)

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

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation

[GHS Cat. Japan, base data]

(Sodium hydrogen sulfite)

human mild irritation and reaction to respiratory tract (ACGIH 7th, 2001)

(Sodium disulfite)

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

Sensitization

Respiratory sensitization

[GHS Cat. Japan, base data]

(Sodium disulfite)

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

Skin sensitization

[GHS Cat. Japan, base data]

(Sodium disulfite)

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

Mutagenic effects data is not available.

**Carcinogenicity**

(Sodium hydrogen sulfite)

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

(Sodium disulfite)

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 hydrogen sulfite)

respiratory tract irritation (ACGIH 7th, 2001)

(Sodium disulfite)

respiratory tract irritation (HSDB, 2013)

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

Additional data

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

12. Ecological Information**Ecotoxicity****Aquatic toxicity**

Harmful to aquatic life

Harmful to aquatic life with long lasting effects

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

(Sodium disulfite)

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

Water solubility

(Sodium hydrogen sulfite)

miscible (ICSC, 2006)

(Sodium disulfite)

54 g/100 ml (ICSC, 2002)

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

(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.

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 (- if this is not the intended use).

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



14. Transport Information

Not applicable to UN No., UN CLASS

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

15. Regulatory Information

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

US Federal Regulations

Chemicals listed in TSCA Inventory

Sodium hydrogen sulfite; Sodium disulfite

Other regulatory information

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

16. Other information

GHS classification and labelling

Acute Tox. 4: H302 Harmful if swallowed

Eye Dam. 1: H318 Causes serious eye damage

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

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

STOT SE 3: H335 May cause respiratory irritation

Aquatic Acute 3: H402 Harmful to aquatic life

Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), 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>

Supplier's data/information

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 2018).