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Safety Data Sheet

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

Product identifier:

Product name: Sodium Nitrite

Reference number(SDS):10287jis_E-2

Product type:

Food Additives for Japan only

※This product conform to JSFA(Japan's Specifications and Standards for Food Additives).

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

Relevant identified uses of the product: Color fixatives

Uses advised against: Do not use for other purposes.

※For more detailed information, please refer to JSFA "F. Standards for use"

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
Telephone number: +81-48-986-6161
FAX: +81-48-989-2787
e-mail address: shiyaku-t@junsei.co.jp

Section 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS

Oxidizing solids: Category 3

HEALTH HAZARDS

Acute toxicity (Oral): Category 3

Serious eye damage/eye irritation: Category 2A

Germ cell mutagenicity: Category 2

Reproductive toxicity: Category 2

Reproductive toxicity - effects on or via lactation: Additional category

Specific target organ toxicity - single exposure: Category 1 (blood)

Specific target organ toxicity - repeated exposure: Category 2 (blood)

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment, short-term (acute): Category 1

Hazardous to the aquatic environment, long-term (chronic): Category 1

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

Label elements

Signal word: Danger

HAZARD STATEMENT

H272-May intensify fire; oxidizer

H301-Toxic if swallowed

H319-Causes serious eye irritation

H341-Suspected of causing genetic defects

H361-Suspected of damaging fertility or the unborn child

H362-May cause harm to breast-fed children
H370-Causes damage to organs
H373-May cause damage to organs through prolonged or repeated exposure
H400-Very toxic to aquatic life
H410-Very toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid contact during pregnancy and while nursing.
Avoid release to the environment.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep away from clothing and other combustible materials.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash contaminated parts thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.
Do not eat, drink or smoke when using this product.

Response

In case of fire: Use water in large amounts to extinguish.
Collect spillage.
Get medical advice/attention if you feel unwell.
IF exposed or concerned: Get medical advice/attention.
IF exposed or concerned: Call a POISON CENTER/doctor/physician.
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. Immediately call a POISON CENTER/doctor/physician.

Storage

Store locked up.

Disposal

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

Specific Physical and Chemical hazards

Oxidizing material. Organic or combustible material may catch fire in contact with it.

Section 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name:Sodium nitrite
Content (%):97.0 <
Chemical formula:$NaNO_2$
Chemicals No, Japan:1-483
CAS No.:7632-00-0
MW:69.00
EC No.:231-555-9

Section 4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical advice/attention if you feel unwell.
Keep victim warm and quiet.
Call emergency medical service.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.
Give artificial respiration if victim is not breathing.
Administer oxygen if breathing is difficult.
Call a POISON CENTER/doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water or shower.
If skin irritation or rash occurs: Get medical advice/attention.
Remove and isolate contaminated clothing and shoes.

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. Induce vomiting (ONLY IN CONSCIOUS PERSONS!).
Immediately give the person one or two glasses of milk or water, to dilute the chemical, do not attempt to the victim vomit.
Immediately call a POISON CENTER/doctor/physician.
Call a POISON CENTER/doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

(Symptoms when inhalation or ingestion)

Confusion. Convulsions. Dizziness. Headache. Nausea. Unconsciousness. Increased heart rate. Blue lips, fingernails and skin.

(Symptoms when skin and/or eye contact)

Conjunctival redness of the eyes. Pain of the eyes.

Indication of any immediate medical attention and special treatment needed

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use water in large amounts to extinguish.
Not combustible but enhances combustion of other substances.

Unsuitable extinguishing media

Form, Dry powder, CO_2

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.
This product may decompose explosively when heated or involved in a fire.
This product will accelerate burning when involved in a fire.

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.
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 SAFTY: Ventilate closed spaces before entering.
Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions

Avoid release to headsprings, rivers, lakes, ocean and groundwater.
Runoff may create fire or explosion hazard.

Methods and materials for containment and cleaning up

With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.
If appropriate, moisten first to prevent dusting. Carefully collect remainder.

Preventive measures for secondary accident

Collect spillage.
Stop leak if you can do it without risk.
Keep combustibles (wood, paper, oil, etc.) away from spilled material.
Do not get water inside containers.
Keep out of low areas.

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.
Keep away from clothing and other combustible materials.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.
Avoid contact with eyes.

Safety Measures

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.
When using do not eat, drink or smoke.
May ignite combustibles (wood, paper, oil, clothing, etc.).
Contaminated clothing may be a fire risk when dry.

Any incompatibilities

Acids, Reducing agents, Aluminium, Ammonium compounds, Amines, Combustible substances should not be mixed with the chemicals.

Advice on general occupational hygiene

Avoid contact during pregnancy and while nursing.
Wash contaminated parts thoroughly after handling.
Do not eat, drink or smoke when using this product.

Storage

Conditions for safe storage

Store in a well-ventilated place.
Keep container tightly closed.
Keep cool. Protect from sunlight.
Store in accordance with local/national regulation.
Store locked up.

Container and packaging materials for safe handling

Keep only in original packaging.

Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

Section 8. Exposure controls/personal protection

Control parameters

Control value and concentration standard value are not available in ISHA.

Adopted value

Adopted value in JSOH is not available.
Adopted value in ACGIH is not available.

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

Select and wear respiratory protection in accordance with approved standards (e.g. JIS T8150).
Recommended respiratory protection：Dust mask

Hand protection

Wear protective gloves.
Inspect before use and replace worn or damaged gloves.
Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions.
Chemical-resistant, impervious gloves complying with an approved standard (e.g. JIS T8116) should be used.

Eye protection

Wear safety glasses with side-shields.
Wear eye/face protection in accordance with approved standards (e.g. JIS T8147).

Skin and body protection

Wear impervious clothing and boots in case of repeated or prolonged treatment.
Personal protective equipment for the body and skin should be selected based on the task being performed and the risks involved.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Crystalline powder, granules or rod-shaped lumps
Color: White～Light yellow
Odor: Odorless
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) 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: > 320℃
Self-Accelerating Decomposition Temperature/SADT data is not available.
pH data is not available.
Dynamic viscosity data is not available.
Kinematic viscosity data is not available.
Solubility:
Solubility in water: 82 g/100 ml (20℃)
Solubility in solvent: Slightly soluble in ethanol.
n-Octanol/water partition coefficient: log Pow=-3.7
Vapor pressure data is not available.
Density and/or relative density: 2.2g/cm3
Relative vapor density (Air=1) data is not available.
Relative density of the Vapor/air - mixture at 20℃ (Air = 1) data is not available.
Particle characteristics data is not available.
Other information
Critical temperature data is not available.
Evaporation rate data is not available.
VOC data is not available.

Section 10. Stability and Reactivity

Reactivity
Runaway polymerization will not occur.
Chemical stability
Stable under normal storage/handling conditions.
Possibility of hazardous reactions
May explode on heating above 530° C.
Decomposes on contact with acids. This produces toxic fumes .
This product is a strong oxidant. It reacts with combustible and reducing materials. This generates fire and explosion hazard.
An aqueous solution of this product is a weak base.
Reacts with aluminium, ammonium compounds and amines.
Conditions to avoid
Contact with incompatible materials.
Heating
Incompatible materials
Acids, Reducing agents, Aluminium, Ammonium compounds, Amines, Combustible substances
Hazardous decomposition products
Nitrogen oxides, Sodium oxides

Section 11. Toxicological Information

Information on toxicological effects
Acute toxicity
Acute toxicity (Oral)
[Product]
Category 3, Toxic if swallowed
[Data for components of the product]
[GHS Cat. Japan, base data]
rat LD50=77～150mg/kg (SIDS, 2005)

Acute toxicity (Dermal)
[Product]
Classification not possible (Insufficient data available or no data available).
[Data for components of the product]
No data available.
Acute toxicity (Inhalation)
[Product]
Classification not possible (Insufficient data available or no data available).
[Data for components of the product]
No data available.

Irritant properties
Skin corrosion/irritation
[Product]
Based on available data, the classification criteria are not met.
[Data for components of the product]
[GHS Cat. Japan, base data]
rabbit : not irritating (SIDS, 2005)
Serious eye damage/irritation
[Product]
Category 2A, Causes serious eye irritation
[Data for components of the product]
[GHS Cat. Japan, base data]
rabbit : moderate irritation (SIDS, 2005)

Sensitization
Respiratory sensitization
[Product]
Classification not possible (Insufficient data available or no data available).
[Data for components of the product]
No data available.
Skin sensitization
[Product]
Classification not possible (Insufficient data available or no data available).
[Data for components of the product]
No data available.

Germ cell mutagenicity
[Product]
Category 2, Suspected of causing genetic defects
[Data for components of the product]
[GHS Cat. Japan, base data]
cat. 2; IARC 94, 2010

Carcinogenicity
[Product]
Classification not possible (Insufficient data available or no data available).
[Data for components of the product]
No data available.

Reproductive toxicity
[Product]
Category 2, Suspected of damaging fertility or the unborn child
Additional category, May cause harm to breast-fed children
[Data for components of the product]
[GHS Cat. Japan, base data]
cat. 2; SIDS, 2005
cat. add; SIDS, 2005

Specific target organ toxicity (STOT)
STOT-single exposure
[Product]
Category 1, Causes damage to organs
[Data for components of the product]
[cat.1]
[GHS Cat. Japan, base data]
blood (SIDS, 2005)
STOT-repeated exposure
[Product]
Category 2, May cause damage to organs through prolonged or repeated exposure
[Data for components of the product]
[cat.2]
[GHS Cat. Japan, base data]
blood (NTP TR 495, 2001)
Aspiration hazard
[Product]
Classification not possible (Insufficient data available or no data available).
[Data for components of the product]
No data available.

Section 12. Ecological Information

Toxicity
Aquatic toxicity
[Product]
Category 1, Very toxic to aquatic life
Category 1, Very toxic 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]
Fish (rainbow trout) LC50=0.54mg/L/96hr (SIDS, 2006)
Water solubility
[Data for components of the product]
82 g/100 ml (20℃) (ICSC, 2000)
Persistence and degradability
Persistence and degradability data is not available.
Bioaccumulative potential
[Data for components of the product]
log Pow=-3.7 (ICSC, 2000)
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 in accordance with local/national regulation.

Section 14. Transport Information

UN No., UN CLASS

UN Number or ID Number : 1500
UN Proper Shipping Name : SODIUM NITRITE
Class or division (Transport hazard class) : 5.1
Subsidiary hazard(s) : 6.1
Packing group : III
ERG GUIDE No.: 140

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : 1500
UN Proper Shipping Name : SODIUM NITRITE
Class or division (Transport hazard class) : 5.1
Subsidiary hazard(s) : 6.1
Packing group : III

IATA (Dangerous Goods Regulations)

UN Number or ID Number : 1500
UN Proper Shipping Name : SODIUM NITRITE
Class or division (Transport hazard class) : 5.1
Subsidiary hazard(s) : 6.1
Hazard labels : Oxidizer & Toxic
Packing group : III

Environmental hazards

Marine pollutants (yes/no) : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Noxious Liquid Substances ; Cat. Y
Sodium nitrite

MARPOL Annex V - HME (Harmful to the Marine Environment)

Hazardous to the aquatic environment - short-term (acute): cat.1
Sodium nitrite
Hazardous to the aquatic environment - long-term (chronic): cat.1, 2
Sodium nitrite

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

7632-00-0

All components are listed or exempted.

Superfund Amendments and Reauthorizations Act (SARA), Title III

SARA 313 (TRI)

Sodium nitrite

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).

Chemical safety assessment

Advice on safe handling for this product can be found in sections 7 and 8 of this SDS.

Section 16. Other information

GHS classification and labelling

H272-Oxidising Solids, Category 3: H272 May intensify fire; oxidiser
H301-Acute toxicity, Category 3: H301 Toxic if swallowed
H319-Serious eye damage/eye irritation, Category 2A: H319 Causes serious eye irritation
H341-Germ cell mutagenicity, Category 2: H341 Suspected of causing genetic defects
H361-Reproductive toxicity, Category 2: H361 Suspected of damaging fertility or the unborn child
H362-Reproductive toxicity - effects on or via lactation, Additional category : H362 May cause harm to breast-fed children
H370-STOT - single exposure, Category 1: H370 Causes damage to organs
H373-STOT - Repeated exposure, Category 2: H373 May cause damage to organs through prolonged or repeated exposure
H400-Hazardous to the aquatic environment, short-term (acute), Category 1: H400 Very toxic to aquatic life
H410-Hazardous to the aquatic environment, long-term (chronic), Category 1: H410 Very toxic to aquatic life with long lasting effects

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)
Notification No. 0111-1 (January 11, 2022), Chemical Hazards Control Division, Industrial Safety and Health Department, Labour Standards Bureau, MHLW in Japan
Supplier's data/information
Chemicals safety data management system "GHS Assistant" Version 4.29 (https://www.asahi-ghs.com/)
NITE Chemical Risk Information Platform "NITE-CHRIP" (https://www.chem-info.nite.go.jp/chem/chrip/chrip_search/systemTop)
GHS Classification Guidance for Enterprises 2019 Revised Edition (Ver. 2.0) (Mar. 2020, METI)

Abbreviations and acronyms

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)
METI (Ministry of Economy, Trade and Industry in Japan)
MHLW (Ministry of Health, Labour and Welfare in Japan)
MOE (Ministry of the Environment in Japan)
JSOH (Japan Society for Occupational Health)
ISHA (Industrial Safety and Health Act in Japan)
CSCL (Chemical Substances Control Law in Japan)
EU (European Union)
EC50 (Effective Concentration, 50%)
NOEC (No Observed Effect Concentration)

BOD (Biochemical Oxygen Demand)
COD (Chemical Oxygen Demand)
BCF (Bioconcentration Factor)
anh (anhydride)

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 2022).