

## Safety Data Sheet

---

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

**Product identifier:**

Product name: Sodium carbonate

Reference number(SDS):43350jis\_E1-4

**Product type:**

Reagent

**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****HEALTH HAZARDS**

Acute toxicity (Inhalation): Category 4

Serious eye damage/eye irritation: Category 1

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

Specific target organ toxicity – single exposure: Category 3 (Narcotic effects)

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

**Label elements**

Signal word: Danger

**HAZARD STATEMENT**

H332-Harmful if inhaled

H318-Causes serious eye damage

H335-May cause respiratory irritation

H336-May cause drowsiness or dizziness

**PRECAUTIONARY STATEMENT****Prevention**

Avoid breathing dust/mist.

Use only outdoors or in a well-ventilated area.

Wear eye protection/face protection.

**Response**

Immediately call a POISON CENTER/doctor/physician.

Call a POISON CENTER/doctor/physician if you feel unwell.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

**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.

---

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

Common name, synonyms: Sodium carbonate anhydrous

Ingredient name: Sodium carbonate

Content (%): 99.0

Chemical formula:  $\text{CNa}_2\text{O}_3$

Chemicals No, Japan: 1-164

CAS No.: 497-19-8

MW: 105.99

ECNO: 207-838-8

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

---

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

Immediately call a POISON CENTER/doctor/physician.

**IF INHALED**

Remove person to fresh air and keep comfortable for breathing.

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.

**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.

If victim is conscious, give 1 - 2 glasses of water.

Call a POISON CENTER/doctor/physician if you feel unwell.

**Most important symptoms and effects, both acute and delayed**

(Symptoms when inhalation or ingestion)

Abdominal pain. Cough. Sore throat. Burning sensation in the throat and chest.

(Symptoms when skin and/or eye contact)

Conjunctival redness of the eyes. Redness of the skin. Pain of the eyes.

---

**Section 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**

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 resistant or flame 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.

---

**Section 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**

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.

If appropriate, moisten first to prevent dusting.

**Preventive measures for secondary accident**

Collect spillage.

---

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

(Exposure Control for handling personnel)

Avoid breathing dust/mist.

(Protective measures against fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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/eye protection/face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

**Any incompatibilities**

Acids, Magnesium, Phosphorus pentoxide, Fluorine should not be mixed with the chemicals.

**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 data is not available.

**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 in MHLW is not available.

**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**

Wear respiratory protection.

**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.

**Eye protection**

Wear safety glasses with side-shields.

Wear eye/face protection.

**Skin and body protection**

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

---

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

Physical state: Powder

Color: White

Odor: None

Odor threshold data is not available.

Melting point/Freezing point: 851°C

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: >400°C

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

pH: 12 (106g/L, 25°C)

Dynamic viscosity data is not available.

Kinematic viscosity data is not available.

**Solubility:**

Solubility in water: 5.307g/liter

Solubility in solvent: Practically insoluble in ethanol(99.5).

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

Vapor pressure data is not available.

Vapor density data is not available.

Density and/or relative density: 2.5g/cm<sup>3</sup>

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.

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.

Hygroscopic.

### Possibility of hazardous reactions

The solution in water is a medium strong base. Reacts violently with acids.

Reacts with magnesium and phosphorus pentoxide. This generates explosion hazard.

Reacts with fluorine. This generates fire hazard.

### Conditions to avoid

Contact with incompatible materials.

Heat. Moisture.

### Incompatible materials

Acids, Magnesium, Phosphorus pentoxide, Fluorine.

### Hazardous decomposition products

Carbon oxides, Sodium oxides

---

## Section 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

###### [Product]

Based on available data, the classification criteria are not met.

###### [Data for components of the product]

[GHS Cat. Japan, base data]

rat LD50=2800mg/kg (SIDS, Access on Jul.2008)

##### Acute toxicity (Dermal)

###### [Product]

Based on available data, the classification criteria are not met.

###### [Data for components of the product]

[GHS Cat. Japan, base data]

rabbit LD50 > 2000mg/kg (SIDS, Access on Jul. 2008)

##### Acute toxicity (Inhalation)

###### [Product]

Category 4, Harmful if inhaled

###### [Data for components of the product]

[GHS Cat. Japan, base data]

mist: rat LC50=1.2mg/L/4hr (SIDS, Access on Jul. 2008)

#### 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, Access on Jul. 2008)

## Serious eye damage/irritation

[Product]

Category 1, Causes serious eye damage

[Data for components of the product]

[GHS Cat. Japan, base data]

rabbit : severe irreversible eyes damage (SIDS, Access on Jul. 2008)

## 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]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

## Carcinogenicity

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

## Reproductive toxicity

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

## Specific target organ toxicity (STOT)

## STOT-single exposure

[Product]

Category 3, May cause respiratory irritation

Category 3, May cause drowsiness or dizziness

[Data for components of the product]

[cat.3 (respiratory tract irritation)]

[GHS Cat. Japan, base data]

respiratory tract irritation (SIDS, Access on Jul. 2008)

[cat.3 (narcotic effects)]

[GHS Cat. Japan, base data]

narcotic effect (SIDS, Access on Jul. 2008)

## STOT-repeated exposure

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

## 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]**

Based on available data, the classification criteria are not met.

**[Data for components of the product]**

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

**[GHS Cat. Japan, base data]**

Crustacea (Daphnia) EC50=250mg/L/48hr (SIDS 2002)

**Water solubility****[Data for components of the product]**

5.307g/L (PHYSPROP\_DB, 2008)

**Persistence and degradability**

Persistence and degradability data is not available.

**Bioaccumulative potential**

Bioaccumulative potential data is not available.

**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**

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

---

**Section 14. Transport Information****UN No., UN CLASS**

UN Number or ID Number : Not applicable

UN Proper Shipping Name : Not applicable

Class or division (Transport hazard class) : Not applicable

Packing group : Not applicable

**IMDG Code (International Maritime Dangerous Goods Regulations)**

UN Number or ID Number : Not applicable

UN Proper Shipping Name : Not applicable

Class or division (Transport hazard class) : Not applicable

Packing group : Not applicable

**IATA (Dangerous Goods Regulations)**

UN Number or ID Number : Not applicable

UN Proper Shipping Name : Not applicable

Class or division (Transport hazard class) : Not applicable

Packing group : Not applicable

**Environmental hazards**

Marine pollutants (yes/no) : no

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

Noxious Liquid Substances ; Cat. Z

Sodium carbonate

---

**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

497-19-8

All components are listed or exempted.

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

H332-Acute toxicity, Category 4: H332 Harmful if inhaled

H318-Serious eye damage/eye irritation, Category 1: H318 Causes serious eye damage

H335-STOT - single exposure, Category 3, Respiratory tract irritation: H335 May cause respiratory irritation.

H336-STOT - single exposure, Category 3, Narcotic effects: H336 May cause drowsiness or dizziness.

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN IMDG Code, 2020 Edition (Incorporating Amendment 40-20)

IATA Dangerous Goods Regulations (62nd Edition) 2021

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2022 TLVs and BEIs. (ACGIH)

JIS Z 7252 : 2019

JIS Z 7253 : 2019

2021 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 4.20 (<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)

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)



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)  
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 2021).