

## Safety Data Sheet

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

**Product identifier:**

Product name: Sodium cyanate

Reference number(SDS):33365jis\_E-2

**Product type:**

Reagent

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

Relevant identified uses of the product: Research and Development

Uses advised against: 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

Telephone number: +81-48-986-6161

FAX: +81-48-989-2787

e-mail address: shiyaku-t@junsei.co.jp

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### Section 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

Specific target organ toxicity – single exposure: Category 1 (central nervous system)

Specific target organ toxicity – repeated exposure: Category 2 (nervous system)

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

**Label elements**

Signal word: Danger

**HAZARD STATEMENT**

H302-Harmful if swallowed

H318-Causes serious eye damage

H370-Causes damage to organs

H373-May cause damage to organs through prolonged or repeated exposure

**PRECAUTIONARY STATEMENT****Prevention**

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

Wash contaminated parts thoroughly after handling.

Wear eye protection/face protection.

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

**Response**

Sodium cyanate, JUNSEI CHEMICAL CO., LTD., 33365jis\_E-2, 03/Jul/2025

Specific treatment is required.

Get medical advice/attention if you feel unwell.

Immediately call a POISON CENTER/doctor/physician.

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.

Rinse mouth.

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

Storage

Store locked up.

Disposal

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

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### Section 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name:Sodium cyanate

Content (%):90 <

Chemical formula:NaOCN

ENCS:1-159

CAS No.:917-61-3

MW:65.01

EC No.:213-030-6

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

Impurities

Contains about 10% sodium carbonate as impurity.

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### Section 4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical advice/attention if you feel unwell.

Immediately call a POISON CENTER/doctor/physician.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

IF INHALED: 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.

Immediately call a POISON CENTER/doctor/physician.

If eye irritation persists: Get medical advice/attention.

#### IF SWALLOWED

Rinse mouth.

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

Most important symptoms and effects, both acute and delayed

Specific information on symptom and effect are unknown.

Indication of any immediate medical attention and special treatment needed

Information on indication of any immediate medical attention and special treatment needed is not available.

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### 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.

#### 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.

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### 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.

#### Preventive measures for secondary accident

Collect spillage.

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### 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.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

#### Safety Measures

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

Strong acids, Strong oxidizing agents, Water 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.

#### 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.

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## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational Exposure Limit

##### JSOH

Not established

##### ACGIH

Not established

### 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.

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## Section 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Physical state: Powder

Color: White

Odor: Odorless

Odor threshold data is not available.

Melting point/Freezing point: 550°C (Sodium cyanate)

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: Not applicable

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature: >700°C (Sodium cyanate)

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: Soluble

Solubility in solvent data is not available.

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 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.

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.

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## Section 10. Stability and Reactivity

### Reactivity

Reactivity data is not available.

### Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Contact with water; gradually decomposes to form sodium carbonate and ammonia.

Conditions to avoid

Contact with incompatible materials.

Open flames. Heating.

Incompatible materials

Strong acids. Strong oxidizing agents. Water.

Hazardous decomposition products

Carbon oxides. Cyanides. Ammonia.

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## Section 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

###### [Product]

Category 4, Harmful if swallowed

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

###### [NITE-CHRIP]

(Sodium cyanate)

rat LD50: 1206.1 mg/kg (source: NITE)

(Sodium carbonate)

rat LD50: 2800 mg/kg (source: NITE)

##### Acute toxicity (Dermal)

###### [Product]

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

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

###### [NITE-CHRIP]

(Sodium carbonate)

rabbit LD50: > 2000 mg/kg (source: NITE)

##### Acute toxicity (Inhalation)

###### [Product]

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

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

###### [NITE-CHRIP]

(Sodium carbonate)

dust/mist: rat LC50: 1.2 mg/L (4-hour) (source: NITE)

#### Irritant properties

##### Skin corrosion/irritation

###### [Product]

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

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

No data available.

##### Serious eye damage/irritation

###### [Product]

Category 1, Causes serious eye damage

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

###### [NITE-CHRIP]

(Sodium cyanate)

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Category 2A (source: NITE)

(Sodium carbonate)

Category 1 (source: NITE)

## 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]

(Sodium cyanate)

Reverse-mutation assay in bacteria (Ames test) :Negative(The agricultural newsletter supplement No.17 (1994))

Chromosome aberration test :Positive(The agricultural newsletter supplement No.17 (1994))

## 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 1, Causes damage to organs

[Data for components of the product]

[NITE-CHRIP]

(Sodium cyanate)

Category 1 (central nervous system) (source: NITE)

(Sodium carbonate)

Category 3 (Respiratory tract irritation), Category 3 (Narcotic effects) (source: NITE)

## STOT-repeated exposure

[Product]

Category 2, May cause damage to organs through prolonged or repeated exposure

[Data for components of the product]

[NITE-CHRIP]

(Sodium cyanate)

Category 2 (nervous system) (source: NITE)

## Aspiration hazard

## [Product]

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

## [Data for components of the product]

No data available.

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

## [Product]

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

## [Data for components of the product]

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

## [NITE-CHRIIP]

(Sodium carbonate)

Crustacea (Daphnia magna) 48-hour EC50: 250 mg/L (source: NITE)

**Water solubility**

## [Data for components of the product]

(Sodium carbonate)

not poorly water-soluble (5307 mg/L) (source: NITE)

**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.

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**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.

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

UN Number or ID Number : Not regulated

UN Proper Shipping Name : Not regulated

Class or division (Transport hazard class) : Not regulated

Packing group : Not regulated

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

UN Number or ID Number : Not regulated

UN Proper Shipping Name : Not regulated

Class or division (Transport hazard class) : Not regulated

Packing group : Not regulated

**IATA (Dangerous Goods Regulations)**

UN Number or ID Number : Not regulated

UN Proper Shipping Name : Not regulated

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Class or division (Transport hazard class) : Not regulated

Packing group : Not regulated

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

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## 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; 917-61-3

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.

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## Section 16. Other information

GHS classification and labelling

H302-Acute toxicity, Category 4: H302 Harmful if swallowed

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

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

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 23rd edit., 2023 UN

IMDG Code, 2024 Edition (Incorporating Amendment 42-24)

IATA Dangerous Goods Regulations (66th Edition) 2025

2024 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2025 TLVs and BEIs. (ACGIH)

JIS Z 7252 : 2019

JIS Z 7253 : 2019

2024 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

Sodium cyanate, JUNSEI CHEMICAL CO., LTD., 33365jis\_E-2, 03/Jul/2025

Chemicals safety data management system "GHS Assistant" Version 4.33

(<https://www.asahi-ghs.com/>)

NITE Chemical Risk Information Platform "NITE-CHRIP"

([https://www.chem-info.nite.go.jp/chem/chrip/chrip\\_search/systemTop](https://www.chem-info.nite.go.jp/chem/chrip/chrip_search/systemTop))

GHS Classification Guidance for Enterprises 2019 Revised Edition (Ver. 2.1) (May. 2024, 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 Data published in Japan (National Institute of Technology and Evaluation (NITE) Chemical Risk Information Platform (NITE-CHRIP), up to FY2023).