

## Safety Data Sheet

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

#### Product identifier:

Product name: Sodium N,N-diethyldithiocarbamate trihydrate

Product code (SDS NO): 33500jis\_J\_E1-1

#### 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

### 2. Hazards identification

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

#### Classification of the substance or mixture

##### HEALTH HAZARDS

Acute toxicity (Oral): Category 4

##### ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Acute): Category 1

Hazardous to the aquatic environment (Long-term): Category 1

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

#### Label elements



Signal word: Warning

#### HAZARD STATEMENT

H302-Harmful if swallowed

H400-Very toxic to aquatic life

H410-Very toxic to aquatic life with long lasting effects

#### PRECAUTIONARY STATEMENT

##### Prevention

Avoid release to the environment.

Wash contaminated parts thoroughly after handling.

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

##### Response

Collect spillage.

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

##### Disposal

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

---

### 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Common name, synonyms: NaDDTC

Ingredient name:Sodium N,N-diethyldithiocarbamate trihydrate

Content (%):92.0 <

Chemical formula:C<sub>5</sub>H<sub>10</sub>NS<sub>2</sub>Na·3H<sub>2</sub>O

Chemicals No, Japan:2-1249; 2-1806

CAS No.:20624-25-3 [148-18-5(anh)]

MW:225.31

ECNO:205-710-6(anh)

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

---

### 4. First-aid measures

Descriptions of first-aid measures

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

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.

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.

Immediately give the person one or two glasses of-water, to dilute the chemical.

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

Most important symptoms and effects, both acute and delayed

(Symptoms when inhalation or ingestion)

Cough. Sore throat. Abdominal pain. Drowsiness. Nausea.

(Symptoms when skin and/or eye contact)

Redness.

---

### 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use water mist, foam, dry powder, CO<sub>2</sub> to extinguish.

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.

Sodium N,N-diethyldithiocarbamate trihydrate,  
JUNSEI CHEMICAL CO., LTD.,33500jis\_J\_E1-1,16/12/2019

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

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.

Environmental precautions

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

Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

If appropriate, moisten first to prevent dusting.

Preventive measures for secondary accident

Collect spillage.

Stop leak if you can do it without risk.

Prevent dust cloud.

---

## 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

Wear protective gloves, protective clothing or face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

Any incompatibilities

Strong acids, 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.

Storage

Conditions for safe storage

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

Keep cool. Protect from sunlight.

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

---

## 8. Exposure controls/personal protection

Control parameters

Control value in MHLW is not available.

Sodium N,N-diethyldithiocarbamate trihydrate,  
JUNSEI CHEMICAL CO., LTD.,33500jis\_J\_E1-1,16/12/2019

Adopted value

Adopted value in JSOH is not available.

Adopted value in ACGIH is not available.

OSHA-PEL value is not available.

NIOSH-REL value 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.

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

Eye protection

Wear eye/face protection.

Skin and body protection

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

---

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Physical state: Crystals

Color: White

Odor data is not available.

Odor threshold data is not available.

pH data is not available.

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Evaporation rate data is not available.

Melting point/Freezing point: ca. 94°C

Decomposition temperature data is not available.

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

Flammability (gases, liquids and solids) data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

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

Vapor pressure data is not available.

Vapor density data is not available.

VOC data is not available.

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

Density and/or relative density data is not available.

Dynamic viscosity data is not available.

Kinematic viscosity data is not available.

### Solubility:

Solubility in water: Freely soluble

Solubility in solvent: Freely soluble in ethanol.

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

---

## 10. Stability and Reactivity

Reactivity data is not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Decomposes on heating. This produces toxic fumes.

The substance is a weak base.

Conditions to avoid

Contact with incompatible materials.

Open flames. Heat.

Incompatible materials

Strong acids, Strong oxidizing agents

Hazardous decomposition products

Carbon oxides, Sulfur oxides, Nitrogen oxides, Sodium oxides

---

## 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Sodium N,N-diethyldithiocarbamate)

rat LD50=1500mg/kg (MOE risk assessment vol.8, 2010)

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenicity

(Sodium N,N-diethyldithiocarbamate)

IARC-Gr.3 : Not Classifiable as a Human Carcinogen

Reproductive toxicity data is not available.

STOT

STOT-single exposure data is not available.

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

Additional data

Reference data : This product's anhydride(CAS No.148-18-5)

---

## 12. Ecological Information

Ecotoxicity

Aquatic toxicity

H400-Very toxic to aquatic life

H410-Very toxic to aquatic life with long lasting effects

Aquatic acute toxicity component(s) data

[GHS Cat. Japan, base data]

(Sodium N,N-diethyldithiocarbamate)

Crustacea (Daphnia magna) LC50=0.91mg/L/48hr (Aquire, 2011)

Persistence and degradability

(Sodium N,N-diethyldithiocarbamate) Not degrade rapidly (BIOWIN)

Bioaccumulative potential data is not available.

Mobility in soil data is not available.

Sodium N,N-diethyldithiocarbamate trihydrate,  
JUNSEI CHEMICAL CO., LTD.,33500jis\_J\_E1-1,16/12/2019

Ozone depleting chemical data is not available.

Additional data

Reference data : This product's anhydride(CAS No.148-18-5)

---

### 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

UN No., UN CLASS

UN No.: 3077

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Class or division : 9

Packing group : III

ERG GUIDE No.: 171

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 3077

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Class or division : 9

Packing group : III

IATA Dangerous Goods Regulations

UN No.: 3077

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Class or division : 9

Hazard labels : Miscellaneous

Packing group : III

Environmental hazards

MARPOL Annex III - Prevention of pollution by harmful substances

Marine pollutants (yes/no) : yes

---

### 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

Hazardous to the aquatic environment - acute hazard: cat.1

Sodium N,N-diethyldithiocarbamate trihydrate

Hazardous to the aquatic environment - long-term hazard: cat.1, 2

Sodium N,N-diethyldithiocarbamate trihydrate

US major regulations

TSCA

Sodium N,N-diethyldithiocarbamate (anh)

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

Sodium N,N-diethyldithiocarbamate trihydrate,  
JUNSEI CHEMICAL CO., LTD.,33500jis\_J\_E1-1,16/12/2019

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).

---

## 16. Other information

### GHS classification and labelling

H302–Acute Tox. 4: H302 Harmful if swallowed

H400–Aquatic Acute 1: H400 Very toxic to aquatic life

H410–Aquatic Chronic 1: H410 Very toxic 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 (60th Edition) 2019

Classification, labelling and packaging of substances and mixtures (table3–1 ECNO6182012)

2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2019 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/ENG/Classification/index.php>

JIS Z 7253 : 2019

JIS Z 7252 : 2019

2019 Recommendation on TLVs (JSOH)

Supplier's data/information

Chemicals safety data management system "GHS Assistant" (<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 2013 Revised Edition (Aug. 2013, METI)

### 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).