

## Safety Data Sheets

### 1. Identification

Product name :Neodymium, standard solution 1000mg/L  
Name of supplier :JUNSEI CHEMICAL CO., LTD.  
Address :1-6, Ohmano-Cho, Koshigaya, Saitama 343-0844, Japan  
Division :Quality Assurance Department  
Phone :+81-48-986-6161  
FAX :+81-48-989-2787  
E-mail :shiyaku-t@junsei.co.jp  
Product code(SDS NO) :56017jis\_E-1

### 2. Hazards identification

GHS classification and label elements of the product

GHS classification

#### HEALTH HAZARDS

Acute toxicity inhalation : Category 3

Skin corrosion/irritation : Category 1A

Specific target organ toxicity-single exposure : Category 2 (respiratory)

Specific target organ toxicity-repeated exposure : Category 2(tooth, respiratory organs)

(Note) GHS classification without description : Not applicable/Out of classification/Not classifiable



Signal word :Danger

#### HAZARD STATEMENT

Toxic if inhaled

Causes severe skin burns and eye damage.

May causes damage to organs after single exposure.

May causes damage to organs following repeated exposure.

#### PRECAUTIONARY STATEMENT

##### Prevention

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

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

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

##### Response

Get medical advice/attention if you feel unwell.

Immediately call a POISON CENTRE or doctor/physician.

Call a POISON CENTER or doctor/physician.

IF exposed or concerned: Call a POISON CENTER or doctor/physician.

If exposed or you feel unwell: Call a POISON CENTER or doctor/physician.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing 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: Rinse mouth. Do NOT induce vomiting.

#### Storage

Store locked up.

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

#### Disposal

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

### 3. Composition/information on ingredients

#### Substance/Preparation :Preparation

Ingredient name:Neodymium nitrate hexahydrate

content(%):ca. 0.1 (as Nd)

Chemical formula: Nd(NO<sub>3</sub>)<sub>3</sub>·6H<sub>2</sub>O

Chemicals No, Japan:1-783

CAS No.:16454-60-7 [10045-95-1(anh)]

MW:438.35

ECNO:233-153-9(anh)

Ingredient name:Nitric acid

content(%):ca. 6.3

Chemical formula:HNO<sub>3</sub>

Chemicals No, Japan:1-394

CAS No.:7697-37-2

MW:63.01

ECNO:231-714-2

Ingredient name:Water

content(%):Residual quantity of the ingredient mentioned above

Chemical formula:H<sub>2</sub>O

CAS No.:7732-18-5

MW:18.02

ECNO:231-791-2

### 4. First-aid measures

#### General procedures

Get medical attention/advice if you feel unwell.

Immediately call a POISON CENTRE or doctor/physician.

Call a POISON CENTER or doctor/physician.

IF exposed or concerned: Call a POISON CENTER or doctor/physician.

If exposed or you feel unwell: Call a POISON CENTER or doctor/physician.

#### IF INHALED

Remove victim to fresh air and keep at rest in a position 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

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to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

#### IF SWALLOWED

Rinse mouth. Do NOT induce vomiting.

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

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#### 5. Fire-fighting measures

##### Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

##### Specific hazards arising from the chemical

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

##### Special protective equipment and precautions for fire-fighters

Wear fire/flare resistant/retardant clothing.

Wear cold insulating gloves/face shield/eye protection.

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

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#### 6. Accidental release measures

##### Personnel precautions, protective equipment and emergency procedures

Ventilate area after material pick up is complete.

Wear proper protective equipment.

##### Environmental precautions

Avoid release to the rivers, lakes, ocean, groundwater.

##### Methods and materials for neutralization, containment and cleaning up

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

##### Preventive measures for secondary accident

Collect spillage.

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#### 7. Handling and storage

##### Precautions for safe handling

###### Preventive measures

(Exposure Control for handling personnel)

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

Avoid breathing dust/fume/gas/mist/Vapors/spray.

(Protective measures against fire & 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.

Avoid breathing dust, vapor, mist, or gas.

##### Safety Measures/Incompatibility

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

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Conditions for safe storage, including any incompatibilities

Recommendation for storage

- Keep cool . Protect from sunlight.
- Store locked up.
- Store in well-ventilated place. Keep container tightly closed.

## 8. Exposure controls/personal protection

Control parameters e.g. occupational exposure limit values or biological limit values

Adopted value

(Nitric acid)

ACGIH(1992) TWA: 2ppm

STEL: 4ppm (URT & eye irr; dental erosion)

OSHA-PEL

(Nitric acid)

TWA 2ppm, 5mg/m<sup>3</sup>

Appropriate engineering controls

- Do not use in areas without adequate ventilation.
- Eye wash station should be available.
- Washing facilities should be available.

Protective equipment

Respiratory protection

Wear positive pressure self-contained breathing apparatus (SCBA).

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

Safety and Health measures

- Wash ... thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Wash contaminated clothing before reuse.

## 9. Physical and Chemical Properties

Physical properties

Appearance :liquid

Color :light crimson

odour data N.A.

pH :Strong acidic

Phase change temperature

Initial Boiling Point/Boiling point data N.A.

Melting point/Freezing point data N.A.

Decomposition temperature data N.A.

Flash point data N.A.

Auto-ignition temperature data N.A.

Explosions data N.A.

Vapor pressure data N.A.

Vapor density data N.A.

Specific gravity/Density data N.A.

Solubility

Solubility in water :miscible

n-Octanol /water partition coefficient data N.A.

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## 10. Stability and Reactivity

### Stability

Stable under normal storage/handling conditions.

### Conditions to avoid

Contact with incompatible materials.

Heat.

### Incompatible materials

Bases, Metals

### Hazardous decomposition products

Nitrogen oxides

## 11. Toxicological Information

Symptoms related to the physical, chemical and toxicological characteristics

### Acute toxicity

#### Inhalation toxicity component(s) data

[GHS Cat. Japan, base data]

(Nitric acid)

mist : LC50=0.05 – 0.5 mg/L (ACGIH, 2001)

### Irritant properties

#### Skin corrosion/irritation

#### Skin corrosion/Irritation component(s) data

[GHS Cat. Japan, base data]

(Nitric acid)

humans : corrosivity (ICSC (1994), HSDB (2005))

#### Serious eye damage /irritation

#### Eye damage/irritation component(s) data

[GHS Cat. Japan, base data]

(Nitric acid)

The statement that if exposed to the human eye, severe burns will take place, and muddiness of a cornea and visual impairment result in vision loss (ACGIH (2001)).

No Allergenic and sensitizing effects data available

No Mutagenic effects data available

No Teratogenic effects data available

No Carcinogenic effects data available

No Toxicity for reproduction data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure

#### Specific target organ toxicity source data

[single exposure cat.1]

[Japan published data]

(Nitric acid) respiratory apparatus/system (ACGIH (2001), DFGOT vol.3 (1991), ICSC (J)(1994), HSDB (2005))

[repeated exposure cat.1]

[Japan published data]

(Nitric acid) teeth; respiratory apparatus/system (ACGIH (2001), DFGOT vol.3 (1994))

No Aspiration hazard data available

### Additional data

There are no data available on the preparation itself.

## 12. Ecological Information

### Ecotoxicity

No Aquatic toxicity data available

No Persistence and degradability data available

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Bioaccumulative potential  
(Nitric acid)  
log Pow=-0.21 (ICSC, 2006)

Additional data

There are no data available on the preparation itself.

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### 13. Disposal Considerations

Disposal methods

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

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### 14. Transport Information

UN No, UN CLASS

UN No :2031

UN CLASS :8

Sub. Risk :5.1

PG :II

Proper shipping name :NITRIC ACID, other than red fuming, with at least 65%, but not more than 70% nitric acid

ERG GUIDE NO :157

Act on Prevention of Marine Pollution and Maritime Disaster

Noxious Liquid ; Cat. Y···Nitric acid

Non Noxious Liquid ; Cat. OS···Water

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### 15. Regulatory Information

GHS classification and labelling

Acute Tox. 3 : H331 Toxic if inhaled

Skin Corr. 1A : H314 Causes severe skin burns and eye damage.

Eye Dam. 1 : H318 Causes serious eye damage.

STOT SE 2 : H371 May causes damage to organs after single exposure.

STOT RE 2 : H373 May causes damage to organs through prolonged or repeated exposure.

US major regulations

TSCA

Nitric acid; Water

Other regulatory information

We are not able to check up the regulatory information in 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.

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### 16. Other information

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (4th ed., 2011), UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 18th edit., 2013 UN

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

2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)

2014 TLVs and BEIs. (ACGIH)

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

Supplier's data/information

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Chemical Risk Information Platform (CHRIP)(NITE) <http://www.safe.nite.go.jp/japan/db.html>  
GHS Classification Guidance for Enterprises 2013 Revised Edition (August, 2013,METI)

Other information

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

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