

## Safety Data Sheet

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

**Product identifier:**

Product name: Diammonium hydrogen citrate

Product code(SDS NO): 26120jis\_E-2

**Details of the supplier of the safety data sheet**

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-Cho, Koshigaya, 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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### 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

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

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### 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Common name, synonyms: Ammonium citrate dibasic

Ingredient name: Diammonium hydrogen citrate

Content(%): 97.0 &lt;

Chemical formula: C<sub>6</sub>H<sub>14</sub>N<sub>2</sub>O<sub>7</sub>

Chemicals No, Japan: 1-391; 2-1318

CAS No.: 3012-65-5

MW: 226.18

ECNO: 221-146-3

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### 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.

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

## 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

### 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/flame resistant/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.

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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 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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## 7. Handling and storage

### Precautions for safe handling

#### Preventive measures

(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, fume, gas, mist or vapor.

#### Safety Measures/Incompatibility

Wear protective gloves, protective clothing or face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

### Conditions for safe storage, including any incompatibilities

#### Recommendation for storage

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

Keep cool. Protect from sunlight.

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## 8. Exposure controls/personal protection

### Control parameters

No control value data available

## Adopted value

No Adopted value data 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.

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## 9. Physical and Chemical Properties

## Information on basic physical and chemical properties

## Physical properties

Appearance: Crystals or crystalline powder

Color: Colorless~White

Odor: Slightly ammoniacal odor

pH: 4.3 (0.1 M soln in water)

## Phase change temperature

Initial Boiling Point/Boiling point data N.A.

Melting point/Freezing point: 185°C

Decomposition temperature: 185°C

Flash point data N.A.

Auto-ignition temperature data N.A.

Explosive properties data N.A.

Vapor pressure data N.A.

Relative Vapor Density (Air=1): 1.84

Specific gravity/Density: 1.48g/cm<sup>3</sup>

## Solubility

Solubility in water: 500g/liter

Solubility in solvent: Practically insoluble in ethanol and diethyl ether.

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

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## 10. Stability and Reactivity

## Chemical stability

Stable under normal storage/handling conditions.

## Conditions to avoid

Contact with incompatible materials.

Open flames. Heat.

## Incompatible materials

Acids, Oxidizing agents

## Hazardous decomposition products

Carbon oxides, Nitrogen oxides, Ammonia

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### 11. Toxicological Information

Information on toxicological effects

No Acute toxicity data available

No Irritant properties data available

No Allergenic and sensitizing effects data available

Germ cell mutagenicity

Reverse-mutation assay in bacteria(Ames test) :Negative(JECDB, 2012)

Chromosome aberration test :Negative(JECDB, 2012)

No Carcinogenic effects data available

No reproductive toxicity data available

No STOT-single/repeated exposure data available

No Aspiration hazard data available

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### 12. Ecological Information

Toxicity

Aquatic toxicity

Aquatic acute toxicity component(s) data

Crustacea(Daphnia magna) EC50 >100 mg/L/48hr

(Results of Eco-toxicity tests of chemicals conducted by MOE in Japan (- March 2013))

Aquatic chronic toxicity component(s) data

Crustacea(Daphnia magna) NOEC=100 mg/L/21 days

(Results of Eco-toxicity tests of chemicals conducted by MOE in Japan (- March 2013))

Crustacea(Daphnia magna) EC50 >100 mg/L/21 days

(Results of Eco-toxicity tests of chemicals conducted by MOE in Japan (- March 2013))

Water solubility

500g/L (PHYSPROP Database)

No Persistence and degradability data available

No Bioaccumulative potential data available

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### 13. Disposal considerations

Waste treatment methods

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

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### 14. Transport Information

UN No, UN CLASS

Not applicable to UN NO.

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### 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

US major regulations

TSCA

Diammonium hydrogen citrate

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, (5th ed., 2013), UN  
Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN  
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)  
2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)

2017 TLVs and BEIs. (ACGIH)

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

Supplier's data/information

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)

### General Disclaimer

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 (NITE published in 2015).