

## SAFETY DATA SHEET

According to JIS Z 7253:2012  
**Revision Date** 24-Apr-2018  
 Version 2

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	Diammonium Cerium(IV) Nitrate
<b>Product code</b>	038-01741,036-01742,030-01745
<b>CAS No</b>	16774-21-3
<b>Formula</b>	Ce(NH <sub>4</sub> ) <sub>2</sub> (NO <sub>3</sub> ) <sub>6</sub>
<b>Manufacturer</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-5964
<b>Supplier</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-2029
<b>Emergency telephone number</b>	+81-6-6203-3741 / +81-3-3270-8571
<b>Recommended uses and restrictions on use</b>	For research purposes
<b>Announcement of company name change</b>	Company name has changed since April 1, 2018. Former name was "Wako Pure Chemical Industries, Ltd."

## Section 2: HAZARDS IDENTIFICATION

## GHS classification

Classification of the substance or mixture

Oxidizing solids

Category 2

Skin corrosion/irritation

Category 2

Serious eye damage/eye irritation

Category 2A

Specific target organ toxicity (single exposure)

Category 3

Category 3 Respiratory tract irritation

## Pictograms



## Signal word

Danger

## Hazard statements

H272 - May intensify fire; oxidizer

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

## Precautionary statements-(Prevention)

- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- Keep/Store away from clothing/combustible materials
- Take any precaution to avoid mixing with combustibles

**Precautionary statements-(Response)**

- 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 ON SKIN: Wash with plenty of soap and water
- If skin irritation occurs: Get medical advice/attention
- Take off contaminated clothing and wash before reuse
- 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.

**Precautionary statements-(Storage)**

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

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant

**Others**

**Other hazards** Not available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Substance

**Formula**  $Ce(NH_4)_2(NO_3)_6$

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS No.
Diammonium Cerium(IV) Nitrate	95.0	548.22	(1)-626, (1)-395	N/A	16774-21-3

**Impurities and/or Additives :** Not applicable

### Section 4: FIRST AID MEASURES

**Inhalation**

Remove to fresh air. Immediate medical attention is required.

**Skin contact**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

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

**Ingestion**

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Protection of first-aiders**

Use personal protective equipment as required.

### Section 5: FIRE FIGHTING MEASURES

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

**Unsuitable extinguishing media**

No information available

**Special extinguishing method**

No information available

**Specific hazards arising from the chemical product**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Protection of fire-fighters**

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

**Environmental precautions**

To be careful not discharged to the environment without being properly handled waste water contaminated.

**Methods and materials for contaminant and methods and materials for cleaning up**

Sweep up and gather scattered particles, and collect it in an empty airtight container.

**Recoverly, neutralization**

No information available

**Secondary disaster prevention measures**

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

**Handling****Technical measures**

Do not give shock. Avoid contact with reducing agents and combustible materials. Avoid contact with organic substance Be careful to hygroscopic. Use with local exhaust ventilation.

**Precautions**

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

**Safety handling precautions**

Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity) Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

**Storage****Safe storage conditions****Storage conditions**

Store away from sunlight in well-ventilated place at room temperature (preferably cool).  
Keep container tightly closed. Protect from moisture.

**Safe packaging material**

Polypropylene

**Incompatible substances**

Combustible materials, Reducing agent, Organic substance

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls**

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

<b>Exposure limits</b>	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<b>Personal protective equipment</b>	
<b>Respiratory protection</b>	Gas mask for acidic gas
<b>Hand protection</b>	Impermeable protective gloves
<b>Eye protection</b>	protective eyeglasses or chemical safety goggles
Skin and body protection	Long-sleeved work clothes
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	
<b>Color</b>	yellowish red
<b>Appearance</b>	crystals - crystalline powder
<b>Odor</b>	No data available
<b>pH</b>	acidic (aq.)
<b>Melting point/freezing point</b>	107 - 108 °C
<b>Boiling point, initial boiling point and boiling range</b>	No data available
<b>Flash point</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper :</b>	No data available
<b>Lower :</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Vapour density</b>	No data available
<b>Specific Gravity / Relative density</b>	1.045
<b>Solubilities</b>	water : freely soluble . Ethanol : soluble .
<b>n-Octanol/water partition coefficient:(log Pow)</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity (coefficient of viscosity)</b>	No data available
<b>Dynamic viscosity</b>	No data available

## Section 10: STABILITY AND REACTIVITY

<b>Stability</b>	
<b>Stability</b>	Stable under recommended storage conditions. This material is deliquescent.
<b>Reactivity</b>	No data available
<b>Hazardous reactions</b>	None under normal processing
<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark, Shock, Moisture
<b>Incompatible materials</b>	Combustible materials, Reducing agent, Organic substance
<b>Hazardous decomposition products</b>	Nitrogen oxides (NOx), Metal oxides

## Section 11: TOXICOLOGICAL INFORMATION

<b>Acute toxicity</b>	No data available
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Skin irritation/corrosion	No data available
Serious eye damage/ irritation	No data available
Respiratory or skin sensitization	No data available
Reproductive cell mutagenicity	No data available
Carcinogenicity	No data available

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Diammonium Cerium(IV) Nitrate 16774-21-3		Group 2A		

Reproductive toxicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available

## Section 12: ECOLOGICAL INFORMATION

Ecotoxicity No information available

Other data No data available

Persistence and degradability No information available  
 Bioaccumulative potential No information available  
 Mobility in soil No information available  
 Hazard to the ozone layer No information available

## Section 13: DISPOSAL CONSIDERATIONS

### Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14: TRANSPORT INFORMATION

### ADR/RID

UN number UN1477  
 Proper shipping name: Nitrates, inorganic, n.o.s.  
 UN classification 5.1  
 Subsidiary hazard class  
 Packing group II  
 Marine pollutant Not applicable

### IMDG

UN number UN1477  
 Proper shipping name: Nitrates, inorganic, n.o.s.  
 UN classification 5.1  
 Subsidiary hazard class  
 Packing group II  
 Marine pollutant (Sea) Not applicable  
 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

**IATA**

<b>UN number</b>	UN1477
<b>Proper shipping name:</b>	Nitrates, inorganic, n.o.s.
<b>UN classification</b>	5.1
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	II
<b>Environmentally Hazardous Substance</b>	Not applicable

<b>Section 15: REGULATORY INFORMATION</b>
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**International Inventories**

<b>EINECS/ELINCS</b>	Listed
<b>TSCA</b>	Listed

**Japanese regulations**

<b>Fire Service Act</b>	Category I, nitrates, dangerous grade 1
<b>Poisonous and Deleterious Substances Control Law</b>	Not applicable
<b>Industrial Safety and Health Act</b>	Dangerous Substances - Oxidizing Substance (Enforcement Order Attached Table 1 Item 3)
<b>Regulations for the carriage and storage of dangerous goods in ship</b>	Oxidizing Agents - Oxidizing Agents (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
<b>Civil Aeronautics Law</b>	Oxidizing Agents - Oxidizing Agents (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)
<b>Pollutant Release and Transfer Register Law</b>	Not applicable
<b>Water Pollution Control Act</b>	Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinance Designating Wastewater Standards Art.1)
<b>Export Trade Control Order</b>	Not applicable

<b>Section 16: OTHER INFORMATION</b>
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**Key literature references and sources for data etc.**

NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
 IATA dangerous Goods Regulations  
 RTECS:Registry of Toxic Effects of Chemical Substances  
 Japan Industrial Safety and Health Association GHS Model SDS  
 Dictionary of Synthetic Organic Chemistry, SSOCJ, Koudansha Scientific Co.Ltd.  
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
 etc

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GHS Classification is according to JIS Z7252(2014). \*JIS: Japanese Industrial Standards

**Product information**

You might get a product which indicates a former company name, during the period of transition.

**End of Safety Data Sheet**