

CAS-No.: 16774-21-3 MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
:  
CAS-No. : 16774-21-3  
Product code : 01120  
Synonyms : Ceric ammonium nitrate

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Labogens Fine Chem Industries  
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,  
Ludhiana Pb. (141007)  
+91 9316777775, +91 7707855700  
[sales@labogens.com](mailto:sales@labogens.com) - [www.Labogens.com](http://www.Labogens.com)

#### 1.4. Emergency telephone number

Emergency number : +91 7707855700 (9:00am - 6:00 pm)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Oxidising Solids, H272  
Category 2  
Acute toxicity (oral), H302  
Category 4  
Skin corrosion/irritation, H315  
Category 2  
Serious eye damage/eye H319  
irritation, Category 2  
Specific target organ H335  
toxicity — Single  
exposure, Category 3,  
Respiratory tract irritation

Full text of hazard classes and H-statements : see section 16

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### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

O; Xn; Xi; R22-36-37-38

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS03

GHS07

Signal word (CLP) : Danger

Hazard statements (CLP) : H272 - May intensify fire; oxidiser.  
H302 - Harmful if swallowed.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H335 - May cause respiratory irritation.

Precautionary statements (CLP) : P220 - Keep/Store away from clothing, combustible materials.  
P261 - Avoid breathing vapours, dust, fume, gas.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : AMMONIUM CERIC NITRATE Extra Pure

CAS-No. : 16774-21-3

Full text of R- and H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Wash with plenty of water/.... Get immediate medical advice/attention.

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- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after skin contact : Causes skin irritation.
- Symptoms/effects after eye contact : Causes serious eye irritation.
- Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.
- Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : May intensify fire; oxidiser.

### 5.3. Advice for firefighters

- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapours. Avoid dust formation.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

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

### 7.3. Specific end use(s)

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

|                          |  |
|--------------------------|--|
| Hand protection          | : Protective gloves  |
| Eye protection           | : Chemical goggles or safety glasses                               |
| Skin and body protection | : Wear suitable protective clothing                                |
| Respiratory protection   | : [In case of inadequate ventilation] wear respiratory protection. |

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|  |                               |
|--|-------------------------------|
| Physical state                             | : Solid                       |
| Colour                                     | : Reddish orange.             |
| Odour                                      | : slight characteristic odor. |
| Odour threshold                            | : No data available           |
| pH   | : No data available           |
| Relative evaporation rate (butylacetate=1) | : No data available           |
| Melting point                              | : No data available           |
| Freezing point                             | : No data available           |
| Boiling point                              | : No data available           |
| Flash point                                | : No data available           |
| Auto-ignition temperature                  | : No data available           |
| Decomposition temperature                  | : No data available           |
| Flammability (solid, gas)                  | : No data available           |
| Vapour pressure                            | : No data available           |
| Relative vapour density at 20 °C           | : No data available           |
| Relative density                           | : No data available           |
| Solubility                                 | : Water: 141 g/100ml @ 250C   |
| Log Pow                                    | : No data available           |
| Viscosity, kinematic                       | : No data available           |
| Viscosity, dynamic                         | : No data available           |
| Explosive properties                       | : No data available           |

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Oxidising properties : The substance or mixture is classified as oxidizing with the subcategory 2.

Explosive limits : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

May intensify fire; oxidiser.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Harmful if swallowed.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

|               |        |
|---------------|--------|
| UN-No. (ADR)  | : 1477 |
| UN-No. (IMDG) | : 1477 |
| UN-No. (IATA) | : 1477 |
| UN-No. (ADN)  | : 1477 |
| UN-No. (RID)  | : 1477 |

#### 14.2. UN proper shipping name

|                                       |   |
|---------------------------------------|---|
| Proper Shipping Name (ADR)            | : NITRATES, INORGANIC, N.O.S.                       |
| Proper Shipping Name (IMDG)           | : NITRATES, INORGANIC, N.O.S.                       |
| Proper Shipping Name (IATA)           | : Nitrates, inorganic, n.o.s.                       |
| Proper Shipping Name (ADN)            | : NITRATES, INORGANIC, N.O.S.                       |
| Proper Shipping Name (RID)            | : NITRATES, INORGANIC, N.O.S.                       |
| Transport document description (ADR)  | : UN 1477 NITRATES, INORGANIC, N.O.S., 5.1, II, (E) |
| Transport document description (IMDG) | : UN 1477 NITRATES, INORGANIC, N.O.S., 5.1, II      |
| Transport document description (IATA) | : UN 1477 Nitrates, inorganic, n.o.s., 5.1, II      |
| Transport document description (ADN)  | : UN 1477 NITRATES, INORGANIC, N.O.S., 5.1, II      |
| Transport document description (RID)  | : UN 1477 NITRATES, INORGANIC, N.O.S., 5.1, II      |

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### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 5.1

Danger labels (ADR) : 5.1

:



#### IMDG

Transport hazard class(es) (IMDG) : 5.1

Danger labels (IMDG) : 5.1

:



#### IATA

Transport hazard class(es) (IATA) : 5.1

Hazard labels (IATA) : 5.1

:



#### ADN

Transport hazard class(es) (ADN) : 5.1

Danger labels (ADN) : 5.1

:



#### RID

Transport hazard class(es) (RID) : 5.1

Danger labels (RID) : 5.1

:



### 14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

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Packing group (RID) : II

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : O2  
Special provisions (ADR) : 511  
Limited quantities (ADR) : 1kg  
Excepted quantities (ADR) : E2  
Packing instructions (ADR) : P002, IBC08  
Special packing provisions (ADR) : B4  
Mixed packing provisions (ADR) : MP10  
Portable tank and bulk container instructions (ADR) : T3  
Portable tank and bulk container special provisions (ADR) : TP33  
Tank code (ADR) : SGAN  
Tank special provisions (ADR) : TU3  
Vehicle for tank carriage : AT  
Transport category (ADR) : 2  
Special provisions for carriage - Packages (ADR) : V11  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV24  
Hazard identification number (Kemler No.) : 50  
Orange plates :   
Tunnel restriction code (ADR) : E  
EAC code : 1Y

#### - Transport by sea

Limited quantities (IMDG) : 1 kg  
Excepted quantities (IMDG) : E2  
Packing instructions (IMDG) : P002  
IBC packing instructions (IMDG) : IBC08  
IBC special provisions (IMDG) : B21, B4  
Tank instructions (IMDG) : T3  
Tank special provisions (IMDG) : TP33  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-Q  
Stowage category (IMDG) : A  
Segregation (IMDG) : SG38, SG49  
Properties and observations (IMDG) : Solids. Solid mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed.  
MFAG-No : 140

#### - Air transport

PCA Excepted quantities (IATA) : E2



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|  |            |
|--|------------|
| PCA Limited quantities (IATA)                | : Y544     |
| PCA limited quantity max net quantity (IATA) | : 2.5kg    |
| PCA packing instructions (IATA)              | : 558      |
| PCA max net quantity (IATA)                  | : 5kg      |
| CAO packing instructions (IATA)              | : 562      |
| CAO max net quantity (IATA)                  | : 25kg     |
| Special provisions (IATA)                    | : A3, A803 |
| ERG code (IATA)                              | : 5L       |

### - Inland waterway transport

|                                   |        |
|-----------------------------------|--------|
| Classification code (ADN)         | : O2   |
| Special provisions (ADN)          | : 511  |
| Limited quantities (ADN)          | : 1 kg |
| Excepted quantities (ADN)         | : E2   |
| Equipment required (ADN)          | : PP   |
| Number of blue cones/lights (ADN) | : 0    |

### - Rail transport

|   |               |
|---|---------------|
| Classification code (RID)   | : O2          |
| Special provisions (RID)  | : 511         |
| Excepted quantities (RID)   | : E2          |
| Packing instructions (RID)  | : P002, IBC08 |
| Special packing provisions (RID)  | : B4          |
| Mixed packing provisions (RID)  | : MP10        |
| Portable tank and bulk container instructions (RID)                     | : T3          |
| Portable tank and bulk container special provisions (RID)               | : TP33        |
| Tank codes for RID tanks (RID)  | : SGAN        |
| Special provisions for RID tanks (RID)                                  | : TU3         |
| Transport category (RID)  | : 2           |
| Special provisions for carriage – Packages (RID)                        | : W11         |
| Special provisions for carriage - Loading, unloading and handling (RID) | : CW24        |
| Colis express (express parcels) (RID)                                   | : CE10        |
| Hazard identification number (RID)                                      | : 50          |

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

AMMONIUM CERIC NITRATE Extra Pure is not on the REACH Candidate List

AMMONIUM CERIC NITRATE Extra Pure is not on the REACH Annex XIV List

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### 15.1.2. National regulations

#### Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

#### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of R-, H- and EUH-statements:

|                     |  |
|---------------------|--|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4  |
| Eye Irrit. 2        | Serious eye damage/eye irritation, Category 2  |
| Ox. Sol. 2          | Oxidising Solids, Category 2   |
| Skin Irrit. 2       | Skin corrosion/irritation, Category 2  |
| STOT SE 3           | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H272                | May intensify fire; oxidiser.  |
| H302                | Harmful if swallowed.  |
| H315                | Causes skin irritation.  |
| H319                | Causes serious eye irritation.   |
| H335                | May cause respiratory irritation.  |
| O                   | Oxidising  |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*