

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

AMMONIUM CERIC NITRATE 0.05N (N/20) VOLUMETRIC SOLUTION

CAS-No.: 16774-21-3

Product Code: 00195

Molecular Formula: $\text{Ce}(\text{NH}_4)_2(\text{NO}_3)_6$

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

1.1. Product identifier

Product form : Mixture
Trade name : Ammonium Ceric Nitrate 0.05N (N/20) Volumetric Solution
CAS-No. : 16774-21-3

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company : Chemnovo Synthesis Pvt Ltd.
N-226 Near Kumbhavali Naka
Tarapur MIDC, Boisar-401 506
Palghar, Maharashtra
Telephone : +91 7400096089
Email: export@chemnovo.in

1.4. Emergency telephone number

Emergency number : + 91 7400096089 (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]
Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]

MATERIAL SAFETY DATA SHEET (SDS/MSDS)**AMMONIUM CERIC NITRATE 0.05N (N/20)****VOLUMETRIC SOLUTION****CAS-No.: 16774-21-3**

Water AR	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	89 – 90	Not classified
Nitric Acid	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2	10 – 10.5	Ox. Liq. 2, H272 Skin Corr. 1A, H314
Ammonium Ceric Nitrate AR	(CAS-No.) 16774-21-3	2.5 – 3	Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Full text of H-statements: see section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

First-aid measures after inhalation	:	Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	:	Wash skin with plenty of water.
First-aid measures after eye contact	:	Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	:	Rinse mouth out with water. If you feel unwell, seek medical advice.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media	:	dry chemical powder, alcohol-resistant foam, carbon dioxide (Co2).
Unsuitable extinguishing media	:	Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighter

Protection during firefighting	:	Do not attempt to take action without suitable protective equipment.
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SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****6.1.1. For non-emergency personnel**

Emergency procedures	:	Avoid contact with skin, eyes and clothing.
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6.1.2. For emergency responders

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AMMONIUM CERIC NITRATE 0.05N (N/20)
VOLUMETRIC SOLUTION
CAS-No.: 16774-21-3



Protective equipment : Use personal protective equipment as required.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean contaminated surfaces with an excess of water.

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.

Hygiene measures : 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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

NITRIC ACID (7697-37-2)		
Germany	TRGS 900 Local name	Salpetersäure
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	2.6 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	1 ppm
Germany	TRGS 900 Remark	EU,13,16
Portugal	Local name	Ácido nítrico
Portugal	OEL TWA (ppm)	2 ppm
Portugal	OEL STEL (ppm)	4 ppm
Spain	Local name	Ácido nítrico
Spain	VLA-EC (mg/m ³)	2.6 mg/m ³
Spain	VLA-EC (ppm)	1 ppm
Spain	Notes	(2007), VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)**AMMONIUM CERIC NITRATE 0.05N (N/20)****VOLUMETRIC SOLUTION****CAS-No.: 16774-21-3**

		Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país.)
United Kingdom	Local name	Nitric acid
United Kingdom	WEL STEL (mg/m ³)	2.6 mg/m ³
United Kingdom	WEL STEL (ppm)	1 ppm
USA – ACGIH	Local name	Nitric acid
USA – ACGIH	ACGIH TWA (ppm)	2 ppm
USA – ACGIH	ACGIH STEL (ppm)	4 ppm
USA – ACGIH	Remark (ACGIH)	URT & eye irr; dental erosion
USA – OSHA	Local name	Nitric acid
USA – OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA – OSHA	OSHA PEL (TWA) (ppm)	2 ppm

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	:	Wear respiratory protection.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	:	Liquid
Molecular mass	:	548.22 g/mol
Colour	:	Yellowish orange liquid.
Odour	:	No data available
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	-41.6 °C
Freezing point	:	No data available
Boiling point	:	83 °C
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

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

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VOLUMETRIC SOLUTION

CAS-No.: 16774-21-3

Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

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.

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	:	Not classified
Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
STOT-single exposure	:	Not classified
STOT-repeated exposure	:	Not classified
Aspiration hazard	:	Not classified

SECTION 12: Ecological information

MATERIAL SAFETY DATA SHEET (SDS/MSDS)**AMMONIUM CERIC NITRATE 0.05N (N/20)****VOLUMETRIC SOLUTION****CAS-No.: 16774-21-3****12.1. Toxicity**

No additional information available

12.2. Persistence and degradability

NITRIC ACID (7697-37-2)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

NITRIC ACID (7697-37-2)	
Bioaccumulative potential	Not established.

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**

No additional information available

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR)	:	Not applicable
UN-No. (IMDG)	:	Not applicable
UN-No. (IATA)	:	Not applicable
UN-No. (ADN)	:	Not applicable
UN-No. (RID)	:	Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	Not applicable
Proper Shipping Name (IMDG)	:	Not applicable
Proper Shipping Name (IATA)	:	Not applicable
Proper Shipping Name (ADN)	:	Not applicable
Proper Shipping Name (RID)	:	Not applicable

14.3. Transport hazard class(es)

ADR		
Transport hazard class(es) (ADR)	:	Not applicable
IMDG		

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AMMONIUM CERIC NITRATE 0.05N (N/20)
VOLUMETRIC SOLUTION
CAS-No.: 16774-21-3

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

AND

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

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

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail transport

Not applicable

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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

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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

None of the components are listed

SZW-lijst van mutagene stoffen :

None of the components are listed

NIET-limitatieve lijst van voor de :

None of the components are listed

voortplanting giftige stoffen – Borstvoeding

NIET-limitatieve lijst van voor de :

None of the components are listed

voortplanting giftige stoffen –

Vruchtbaarheid

NIET-limitatieve lijst van voor de :

None of the components are listed

voortplanting giftige stoffen – Ontwikkeling

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Ox. Liq. 2	Oxidising Liquids, Category 2
Ox. Sol. 2	Oxidising Solids, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
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.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

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VOLUMETRIC SOLUTION
CAS-No.: 16774-21-3



Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Chemnovo Synthesis Pvt Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.chemnovo.in for additional terms and conditions of sale.

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