



Section 1 - Chemical Product and Company Identification

Product Name Ammonium Ceric Nitrate 0.05N Solution
Product Code 42725
CAS No 16774-21-3
Company Name Sisco Research Laboratories Pvt. Ltd.
Address 608, B Wing, Satellite Gazebo, Andheri Ghatkopar Link Road,
Andheri (E), Mumbai - 400 099, India

Section 2 - Composition/Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
16774-21-3	Ammonium ceric nitrate	<=100	240-827-6

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful if swallowed. Irritating to eyes, respiratory system and skin. Risk of serious damage to eyes.
Contact with combustible material may cause fire.

Potential Health Effects

Eye: Causes eye irritation. Risk of serious damage to eyes.
Skin: Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. Ingestion of nitrate containing compounds can lead to methemoglobinemia.
Inhalation: Causes respiratory tract irritation. May be harmful if inhaled. Inhalation of high concentrations of ammonia vapors may cause shortness of breath, bronchospasm, chest pain and pulmonary edema which may be fatal.

Chronic:

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: Get medical aid. Wash mouth out with water.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Exposure to heat may promote violent



decomposition. Strong oxidizer. Contact with other material may cause fire. Dangerous fire hazard in the form of dust when exposed to heat or flame.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Keep away from heat, sparks and flame. Material is heat sensitive.

Storage: Do not store near combustible materials. Store in a cool, dry place. Store in a tightly closed container. Do not store in metal containers. Keep away from alkalis, oxidizable materials, finely divided metals, alcohols, and permanganates. Store in a cool, dry, well-ventilated location. Separate from combustible materials, halogens, sulfides, metals. See also NFPA 430, Code for the Storage of Liquid and Solid Oxidizers.

Section 8 - Exposure Control / Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 16774-21-3:

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder

Color: Orange Yellow

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

Molecular Weight: 548.23

Section 10 - Stability and Reactivity

Chemical Stability: Decomposes when heated. Stable, however, may violently decompose at temperatures above 175°C.



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Conditions to Avoid: Incompatible materials, excess heat, combustible materials, exposure to moist air or water, temperatures above 85°C.

Incompatibilities with

Other Materials : Acidic conditions, acidic conditions, reducing agents, acids, bases, finely powdered metals, phosphorus, cyanides (e.g. potassium cyanide, sodium cyanide), hypophosphites, tin chloride, thiocyanates, isothiocyanates, phosphinates + heat, heavy metals, aluminum powder + water + metal nitrate may explode, mixtures of metal nitrates with alkyl esters may explode, Reactions with heavy metals may form explosive substances..

Hazardous Decomposition

Products : Nitrogen oxides (NOx) and ammonia (NH3), metallic oxides.

Hazardous Polymerization : Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 16774-21-3: None listed

LD50/LC50: RTECS: Not available.

Other: Oral, rat: LD50 > 200-2000 mg/kg

Carcinogenicity: Ammonium cerium(IV) nitrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Ecotoxicity: Daphnia: Daphnia: >100 mg/L; 48H; EC50

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

IATA	IMO	RID/ADR	
Shipping Name:	Oxidizing Solid, Toxic, N.O.S.*	Oxidizing Solid, Toxic, N.O.S.*	Oxidizing Solid, Toxic, N.O.S.*
Hazard Class:	5.1	5.1	5.1
UN Number:	1477	1477	1477
Packing Group:	II	II	II

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN O

Risk Phrases: R 22 Harmful if swallowed.R 36/37/38 Irritating to eyes, respiratory system and skin.R 41 Risk of serious damage to eyes.R 8 Contact with combustible material may cause fire.

Safety Phrases: S 17 Keep away from combustible material.S 26 In case of contact with eyes, rinse



immediately with plenty of water and seek medical advice. S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection) CAS# 16774-21-3: 1

Canada CAS# 16774-21-3 is listed on Canada's DSL List

US Federal

TSCA CAS# 16774-21-3 is listed on the TSCA Inventory.

Section 16 - Other Information

Sisco Research Laboratories Pvt. Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.