

# SAFETY DATA SHEET

## 1. Identification

Product identifier: AMMONIUM NITRATE

#### Other means of identification Product No.: 3436, 0829, 0729

## Recommended use and restriction on use

Recommended use: Not available. Restrictions on use: Not known.

#### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

Company Name:	Avantor Performance Materials, Inc.
Address:	3477 Corporate Parkway, Suite 200
	Center Valley, PA 18034
Telephone:	
	Customer Service: 855-282-6867
Fax:	
Contact Person:	Environmental Health & Safety
e-mail:	info@avantormaterials.com

#### **Emergency telephone number:**

24 Hour Emergency: 908-859-2151

Chemtrec: 800-424-9300

### 2. Hazard(s) identification

#### Hazard classification

Physical hazards	
Oxidizing solids	Category 3
Health hazards	

Serious eye damage/eye irritation Category 2A

#### Label elements

Hazard symbol:



Danger

Hazard statement:

May intensify fire; oxidizer. Causes serious eye irritation.

#### **Precautionary statement**

#### **Prevention:**

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. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling.



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.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification:	None.

## 3. Composition/information on ingredients

### Substances

Chemical identity	Common name and synonyms	CAS number	Content in percent (%)*
AMMONIUM NITRATE		6484-52-2	99 - 100%
* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.			

## 4. First-aid measures

General information:	Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.	
Ingestion:	Rinse mouth thoroughly. Call a POISON CENTER or doctor/physician if you feel unwell.	
Inhalation:	Move to fresh air. Get medical attention if symptoms persist.	
Skin contact:	Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse.	
Eye contact:	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.	
Most important symptoms/effects, acute and delayed		
Symptoms:	May cause irritation to skin, eyes, and respiratory tract.	
Indication of immediate medical attention and special treatment needed		
Treatment:	Treat symptomatically. Symptoms may be delayed.	
5. Fire-fighting measures		
General fire hazards:	Oxidizing material.	
Suitable (and unsuitable) extinguishing media		
Suitable extinguishing media:	Water in large amounts. In case of fire in the surroundings: use flooding amounts of water in the early stages.	
Unsuitable extinguishing	None known.	

media:



Specific hazards arising from the chemical:	May intensify fire; oxidizer.	
Special protective equipment and precautions for firefighters		
Special fire fighting procedures:	Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.	
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.	

## 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Keep unauthorized personnel away. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use personal protective equipment. See Section 8 of the MSDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Methods and material for containment and cleaning up:	Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if possible without any risk. Sweep up spilled substance and remove to safe place. Collect in a non-combustible container for prompt disposal. Clean surface thoroughly to remove residual contamination.
Notification Procedures:	Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage	
Precautions for safe handling:	Keep away from combustible material. Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Avoid inhalation of dust. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities: Keep containers tightly closed. Store in cool, dry place. Store in a wellventilated place.

## 8. Exposure controls/personal protection

Control parameters Occupational exposure limits	None of the components have assigned exposure limits.
Appropriate engineering controls	No data available.
Individual protection measures, s	such as personal protective equipment
General information:	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Eye/face protection:	Use tight fitting goggles if dust is generated.
	2/12



Skin protection Hand protection:	Wear protective gloves.
Other:	Wear suitable protective clothing.
Respiratory protection:	In case of inadequate ventilation use suitable respirator.
Hygiene measures:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

## 9. Physical and chemical properties

#### Appearance

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Physical state:	Solid
Form:	Crystals
Color:	Colorless
Odor:	Odorless
Odor threshold:	No data available.
pH:	5.4 (0.1 molar aqueous solution)
Melting point/freezing point:	170 °C
Initial boiling point and boiling ra	nge: 200 °C Decomposes
Flash Point:	No data available.
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability	or explosive limits
Flammability limit - upper (%	): No data available.
Flammability limit - lower (%)	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	1.73 (25 °C)
Solubility(ies)	
Solubility in water:	1,180 g/l (0 °C)
Solubility (other):	ethanol: 0.038 g/ml (20 °C) methanol: 0.171 g/ml (20 °C)
Partition coefficient (n-octanol/wa	ater): No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
Other information	
Molecular weight:	80.06 g/mol (H3N.HNO3)
10. Stability and reactivity	
Reactivity:	No dangerous reaction known under conditions of normal use.
Chomical stability	Motorial is stable under normal conditions
Chemical stability:	Material is stable under normal conditions.

Possibility of hazardous reactions:

Hazardous polymerization does not occur. The substance is hygroscopic and will absorb water by contact with the moisture in the air.



Conditions to avoid:	Heat, sparks, flames. Avoid conditions which create dust. Moisture. Keep away from combustible material. Contact with incompatible materials. Shocks and physical damage.
Incompatible materials:	Metals. All oxidizable materials (both organic & inorganic)
Hazardous decomposition products:	Thermal decomposition may produce oxides of nitrogen. ammonia

## 11. Toxicological information

## Information on likely routes of exposure Ingestion: May be harmful if swallowed. Inhalation: May cause irritation to the respiratory system. Skin contact: May cause irritation. Eye contact: Causes serious eye irritation. Information on toxicological effects Acute toxicity (list all possible routes of exposure) Oral Product: LD 50 (Rat): 2,217 mg/kg LD 50 (Rat): 4,500 mg/kg LD 50 (Rat): 2,800 mg/kg Dermal Product: No data available. Inhalation Product: LC 50 (Rat, 4 h): > 88.8 mg/l Repeated dose toxicity **Product:** No data available. Skin corrosion/irritation **Product:** May cause skin irritation. Serious eye damage/eye irritation **Product:** Causes serious eye irritation. Respiratory or skin sensitization Product: Not a skin sensitizer. Carcinogenicity **Product:** This substance has no evidence of carcinogenic properties. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:** No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified



## Germ cell mutagenicity

In vitro Product:	No mutagenic components identified	
In vivo Product:	No mutagenic components identified	
Reproductive toxicity Product:	No components toxic to reproduction	
Specific target organ toxicity - single exposure Product:No data available.		
Specific target organ toxicity - repeated exposureProduct:No data available.		
Aspiration hazard Product:	Not classified	
Other effects:	None known.	

## 12. Ecological information

## **Ecotoxicity:**

Acute hazards to the aquatic environment:		
Fish Product:	No data available.	
Specified substance(s): AMMONIUM NITRATE	LC 50 (Carp (Cyprinus carpio), 48 h): 61 - 104 mg/l Mortality LC 50 (Carp (Cyprinus carpio), 48 h): 65 - 85 mg/l Mortality	
Aquatic invertebrates Product:	No data available.	
Chronic hazards to the aquatic environment:		
Fish Product:	No data available.	
Aquatic invertebrates Product:	No data available.	
Toxicity to Aquatic Plants Product:	No data available.	
Persistence and degradability		
Biodegradation Product:	There are no data on the degradability of this product.	
BOD/COD ratio Product:	No data available.	
Bioaccumulative potential Bioconcentration factor (BC Product:	F) No data available on bioaccumulation.	
Partition coefficient n-octanol / water (log Kow)		



Product:	No data available.	
Mobility in soil:	No data available.	
Other adverse effects:	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
13. Disposal considerations		
Disposal instructions:	Discharge, treatment, or disposal may be subject to national, state, or local laws.	
Contaminated packaging:	Since emptied containers retain product residue, follow label warnings even after container is emptied.	
14. Transport information		
DOT UN number: UN proper shipping name: Transport hazard class(es) Class(es): Label(s): Packing group: Marine Pollutant:	UN 1942 Ammonium nitrate 5.1 5.1 III No	

IMDG UN number: UN proper shipping name: Transport hazard class(es) Class(es): Label(s): EmS No.:	UN 1942 AMMONIUM NITRATE 5.1 5.1 F-H, S-Q
Packing group:	III
Marine Pollutant:	No
IATA UN number: Proper Shipping Name: Transport hazard class(es): Class(es): Label(s):	UN 1942 Ammonium nitrate 5.1 5.1
Marine Pollutant:	No
Packing group:	III

## 15. Regulatory information

## **US** federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) None present or none present in regulated quantities.

## CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.



## Superfund amendments and reauthorization act of 1986 (SARA) Hazard categories

Tiazaru categories				
X Acute (Immediate) Chro	onic (Delayed) X	Fire Reactive	Pressure Generating	
SARA 302 Extremely hazardous substance None present or none present in regulated quantities.				
SARA 304 Emergency release notification None present or none present in regulated quantities.				
SARA 311/312 Hazardous cl Chemical identity	nemical Threshold Plannir	ng Quantity		
AMMONIUM NITRATE		500 lbs		
SARA 313 (TRI reporting)				
	Reporting	Reporting threshold	for	
Ob any is all islam titus	threshold for	manufacturing and		
Chemical identity	other users	processing		
AMMONIUM NITRATE	10000 lbs10000	25000 lbs. 25000 lbs.		
	lbs	IDS.		
Clean Water Act Section 311 Ha	zardous Substance	os (10 CER 117 3)		
None present or none present		. ,		
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):				
None present or none present in regulated quantities.				
US state regulations				
<b>US. California Proposition 65</b> No ingredient regulated by CA Prop 65 present.				
US. New Jersey Worker and AMMONIUM NITRATE	Community Right- Listed	to-Know Act		

- US. Massachusetts RTK Substance List AMMONIUM NITRATE Listed
- US. Pennsylvania RTK Hazardous Substances AMMONIUM NITRATE Listed
- US. Rhode Island RTK AMMONIUM NITRATE Listed

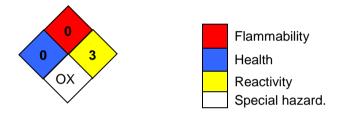


## **Inventory Status:**

Australia AICS: Canada DSL Inventory List: EINECS, ELINCS or NLP: Japan (ENCS) List: China Inv. Existing Chemical Substances: Korea Existing Chemicals Inv. (KECI): Canada NDSL Inventory: Philippines PICCS: US TSCA Inventory: New Zealand Inventory of Chemicals: Japan ISHL Listing: Japan Pharmacopoeia Listing: On or in compliance with the inventory Not in compliance with the inventory. On or in compliance with the inventory Not or in compliance with the inventory Not in compliance with the inventory Not in compliance with the inventory.

## 16.Other information, including date of preparation or last revision

## **NFPA Hazard ID**



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe OXY: Oxidizer

1.0

No data available.

Issue date:	08-04-2014
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Revision date:

Version #:

Further information: No data available.



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