

Date of issue/ Date of revision : 30.08.2022
Date of previous issue : 19.06.2020
Version : 3.1



SAFETY DATA SHEET

Ammonium Nitrate Porous Prills (7-7)

Section 1. Identification

Product identifier : Ammonium Nitrate Porous Prills (7-7)
Product type : Solid
Product code : PA11KP

Uses

Area of application : Industrial applications, Professional applications

Supplier

Supplier's details : YARA PILBARA FERTILISERS PTY LTD

Address

Street : Eastpoint Plaza level 10, 233 Adelaide Terrace
Postal code : 6000
City : Perth
Country : Australia

Telephone number : +61 8 9183 4000
Fax no. : +61 8 9185 6776
e-mail address of person responsible for this SDS : Info.yara.pilbara@yara.com

Emergency telephone number : Australia: 1300 927 200
(with hours of operation) Intl: +61 2801 44558 / +44 (0) 1235 239 670
(24 HRS)



Section 1. National advisory body/Poison Center

Name : Poisons Information Centre
Telephone number : 131126
Hours of operation : 24 hours, within Australia only

Section 2. Hazard(s) identification

Classification of the substance or mixture. : OXIDIZING SOLIDS - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms	:	 
Signal word	:	WARNING
Hazard statements	:	H272 May intensify fire; oxidizer. H319 Causes serious eye irritation.
Precautionary statements		
Prevention	:	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep away from clothing and other combustible materials.
Response	:	P280-a Wear eye protection. P305 IF IN EYES: P351 Rinse cautiously with water for several minutes. P338 Remove contact lenses, if present and easy to do. Continue rinsing. P337 If eye irritation persists: P313 Get medical attention. P370 In case of fire: P378-b Use flooding quantities of water to extinguish.
Supplemental label elements	:	Not applicable.
Other hazards which do not result in classification	:	Product forms slippery surface when combined with water.

Section 3. Composition and ingredient information

Substance/mixture : Mixture

Ingredient name	CAS number	% (w/w)
ammonium nitrate	6484-52-2	>= 90 - < 100

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Date of issue : 30.08.2022

Page:2/15

- Eye contact** : Rinse with plenty of running water. Check for and remove any contact lenses. If irritation persists, get medical attention.
- Inhalation** : If inhaled, remove to fresh air. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with soap and water. Get medical attention if irritation develops.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following: pain or irritation, watering, redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use flooding quantities of water for extinction.
- Unsuitable extinguishing media** : Do NOT use chemical extinguisher or foam or attempt to smother the fire with steam or sand.
- Specific hazards arising from the chemical** : Oxidizing material. May intensify fire. The product itself is not combustible but it can support combustion, even in absence of air. On heating it melts and further heating can cause decomposition, releasing toxic fumes containing nitrogen oxides and ammonia. The product has high resistance to detonation, but mixing with incompatible substances and/or heating under strong confinement can lead to explosive behaviour.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials: nitrogen oxides, ammonia, Avoid breathing dusts, vapors or fumes from burning materials., In case of inhalation of decomposition products in a fire, symptoms may be delayed.
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Remark** : Non-explosive.
- Hazchem or Emergency Action Code** : 1Y

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. If spilled product is contaminated with incompatible material (see Section 10), carry out a risk assessment to identify appropriate methods and equipment specific to the situation and nature of the contaminants. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. If spilled product is contaminated with incompatible material (see Section 10), carry out a risk assessment to identify appropriate methods and equipment specific to the situation and nature of the contaminants. Approach release from upwind. Prevent entry

into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

- : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from clothing, incompatible materials and combustible materials. Keep away from heat. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

- : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Separate from reducing agents and combustible materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep away from: organic materials, oil and grease.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

- : None.

Appropriate engineering controls

- : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.



Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : A washing facility or water for eye and skin cleaning purposes should be present. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended: Tightly-fitting goggles,

Skin protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. For general applications, we recommend gloves with a thickness typically greater than 0.35 mm. It should be emphasized that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material.
> 8 hours (breakthrough time): Protective gloves should be worn under normal conditions of use.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : In case of inadequate ventilation wear respiratory protection.
- Personal protective equipment (Pictograms)** :  

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Solid
- Color** : White.,
- Odor** : Odorless.
- Odor threshold** : Not determined.
- pH** : 4.5 - 7 [Conc. (% w/w): 100 g/l]

Melting point/freezing point : 169.6 °C (337.3 °F)

Boiling point, initial boiling point, and boiling range : Not applicable.

Flash point : Not applicable.

Evaporation rate	: Not determined.
Flammability	: Non-flammable.
Lower and upper explosion limit/flammability limit	: Lower: Not applicable. Upper: Not applicable.
Vapor pressure	: Not determined.
Relative vapor density	: Not applicable.
Relative density	: Not determined.
Bulk density	: 650 - 1,050 kg/m ³
Density	: 0.65 - 1.05 g/cm ³ @ 20 °C (68 °F)
Solubility	: cold water
Solubility in water	: > 100 g/l @ 20 °C (68 °F)
Partition coefficient: n-octanol/water	: < 1
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: > 210 °C (> 410 °F)
Viscosity	: Dynamic: Not determined. Kinematic: Not applicable.
Explosive properties	: Non-explosive.
Oxidizing properties	: Oxidizer
<u>Particle characteristics</u>	
Median particle size	: Not determined.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following: contact with combustible materials Reactions may include the following: risk of causing or intensifying fire The product has high resistance to detonation, but mixing with incompatible substances and/or heating under strong confinement can lead to explosive behaviour.
Conditions to avoid	: Avoid contamination by any source including metals, dust and organic materials.
Incompatible materials	: Reactive or incompatible with the following materials: alkalis, combustible materials, reducing materials, organic materials,

Acids

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Method	Species	Result	Exposure
ammonium nitrate				
	OECD 401 LD50 Oral	Rat	2,950 mg/kg	Not applicable.
	OECD 402 LD50 Dermal	Rat	> 5,000 mg/kg	Not applicable.

Conclusion/Summary : No known significant effects or critical hazards.

Irritation/Corrosion

Product/ingredient name	Method	Species	Result	Exposure
ammonium nitrate				
	OECD 405 Eyes	Rabbit	Irritant	-

Conclusion/Summary

Skin : No known significant effects or critical hazards.

Eyes : Causes serious eye irritation. Causes serious eye irritation.

Respiratory : No known significant effects or critical hazards.

Sensitization

Product/ingredient name	Method	Species	Result
ammonium nitrate			
	OECD 429 Skin	Mouse	Not sensitizing

Conclusion/Summary

Skin : No known significant effects or critical hazards.

Respiratory : No known significant effects or critical hazards.

Mutagenicity

Product/ingredient name	Method	Test detail	Result
ammonium nitrate			
	OECD 473	Mammalian Toxicity - Genotoxicity - In vitro Mammalian Chromosome Aberration Test or	Negative

		Mammalian Bone Marrow Chromosomal Abberation Test or Mammalian Erythrocyte Micronucleus Test In vitro	
	OECD 471	Bacteria In vitro	Negative

Conclusion/Summary : No known significant effects or critical hazards.

Carcinogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Reproductive toxicity

Product/ingredient name	Method	Species	Result	Exposure
ammonium nitrate				
	OECD 422 Oral	Rat	Fertility effects- Negative Developmental- Negative NOAEL > 1500 mg/kg bw/day	28 days

Conclusion/Summary : No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

No known significant effects or critical hazards.

Specific target organ toxicity (repeated exposure)

No known significant effects or critical hazards.

Aspiration hazard

No known significant effects or critical hazards.

Information on the likely routes of exposure: : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following: pain or irritation, watering, redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure**Short term exposure**

- Potential immediate effects : Not available.
 Potential delayed effects : Not available.

Long term exposure

- Potential immediate effects : Not available.
 Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Method	Species	Result	Exposure
ammonium nitrate				
	OECD 422 Chronic NOAEL Oral	Rat	256 mg/kg	28 days
	OECD 412 Sub-acute NOEC Inhalation	Rat	> 185 mg/m ³	2 weeks 5 hours per day

- Carcinogenicity** : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.
Effects on or via lactation : No known significant effects or critical hazards.
Other effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Numerical measures of toxicity**Acute toxicity estimates****Section 12. Ecological information****Toxicity**

Product/ingredient name	Method	Species	Result	Exposure
ammonium nitrate				
	Acute LC50 Fresh water	Fish	447 mg/l	48 h
	Acute EC50 Fresh water	Daphnia	490 mg/l	48 h
	Acute EC50 Salt water	Algae	1,700 mg/l	10 d

Conclusion/Summary : No known significant effects or critical hazards.

Persistence and degradability

Conclusion/Summary : No known significant effects or critical hazards.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Ammonium Nitrate Porous Prills (7-7)	< 1	Not applicable.	low

Conclusion/Summary : No known significant effects or critical hazards.

Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

Other adverse effects : No known significant effects or critical hazards.


Section 13. Disposal considerations


Product


Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.


Section 14. Transport information

Regulation: ADG	
14.1 UN number	UN1942
14.2 UN proper shipping name	AMMONIUM NITRATE
14.3 Transport hazard class(es)	5.1

	
14.4 Packing group	III
14.5 Environmental hazards	No.
Additional information Hazchem or Emergency Action Code: 1Y	

Regulation: ADR/RID	
14.1 UN number	1942
14.2 UN proper shipping name	AMMONIUM NITRATE
14.3 Transport hazard class(es)	5.1 
14.4 Packing group	III
14.5 Environmental hazards	No.
Additional information Hazard identification number : 50 Tunnel code : (E) Hazchem or Emergency Action Code : 1Y	

Regulation: IMDG	
14.1 UN number	1942
14.2 UN proper shipping name	AMMONIUM NITRATE
14.3 Transport hazard class(es)	5.1 
14.4 Packing group	III
14.5 Environmental hazards	No.
Additional information Marine pollutant : No. IMDG Code Segregation group : SG2 Emergency schedules (EmS) : F-H, S-Q	

Regulation: IATA	
14.1 UN number	1942
14.2 UN proper shipping name	AMMONIUM NITRATE
14.3 Transport hazard class(es)	5.1 
14.4 Packing group	III
14.5 Environmental hazards	No.
Additional information	
Marine pollutant	: No.

14.6 Special precautions for user : Transport within user's premises: Ensure that persons transporting the product know what to do in the event of an accident or spillage.

IMSBC

Bulk cargo shipping name : AMMONIUM NITRATE UN 1942
Class : Class 5.1: Oxidizing material.
Group : B
Marpol V : Non-HME

Transport in bulk according to IMO instruments : Not applicable.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

Inventory list

Philippines inventory (PICCS): All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Korea inventory: All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Australia inventory (AIIIC): All components are listed or exempted.

Taiwan Chemical Substances Inventory (TCSI): All components are listed or exempted.

EC INVENTORY (EINECS/ELINCS): All components are listed or exempted.

Section 16. Any other relevant information

Key to abbreviations : ADG = Australian Dangerous Goods
 ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 bw = Body weight
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
OXIDIZING SOLIDS - Category 3	Expert judgment
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method

Key data sources

- : EU REACH ECHA/IUCLID5 CSR.
- National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda Registry of Toxic Effects of Chemical Substances.
- Sphera Solutions Inc., 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada.
- EU REACH ECHA/IUCLID5 CSR.
- National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda Registry of Toxic Effects of Chemical Substances.
- Sphera Solutions Inc., 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada.

History

- Date of printing** : 19.09.2022
- Date of issue/Date of revision** : 30.08.2022
- Date of previous issue** : 19.06.2020
- Version** : 3.1
- Prepared by** : Product Stewardship and Compliance (PSC).

|| Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the

accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.