Neutron® Pharmachemical Co.
Manufacturer of Laboratory Chemical & Pharmaceutical Materials

SAFETY DATA SHEET

Creation Date Oct-2013 Revision Date Oct-2018 Revision Number 2

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification

Product Description:	Ammonium phosphate, dibasic
Product Grade:	ER, SQ
Cat No :	3.1020
Synonyms	DAP; Di-ammonium hydrogen orthophosphate
CAS-No	7783-28-0
EC-No.	231-987-8
Molecular Formula	H9 N2 O4 P

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

Recommended Use	Laboratory chemicals.
Uses advised against	No Information available

1.3. Details of the supplier of the safety data sheet

Company	NEUTRON PHARMACHEMICAL CO 98, 9th Floor, Borjsaz Building, Azadi Ave, Tehran, Iran. T 021-66906732-3 - F 021-66581408
E-mail address	info@neutronco.com www.neutronco.com

1.4. Emergency telephone number

125

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards
Based on available data, the classification criteria are not met

Health hazards
Based on available data, the classification criteria are not met

Environmental hazards
Based on available data, the classification criteria are not met

2.2. Label elements

Hazard Statements

Precautionary Statements

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Diammonium phosphate	7783-28-0	EEC No. 231-987-8	>95	-

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minute
Obtain medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Obtain medical att

Ingestion Do not induce vomiting. Obtain medical attention.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.

Protection of First-aiders No special precautions required.

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

None reasonably foreseeable.

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

Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media
Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Extinguishing media which must not be used for safety reasons
No information available.

5.2. Special hazards arising from the substance or mixture

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes

Hazardous Combustion Products
Nitrogen oxides (NOx), Oxides of phosphorus, Ammonia.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation.

6.2. Environmental precautions

Avoid release to the environment. See Section 12 for additional ecological information.

6.3. Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and
Do not breathe dust. Do not ingest.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits
List source(s):

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Diammonium phosphate	TWA: 6 mg/m³				

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Diammonium phosphate	MAC: 10 mg/m³				

Biological limit values
This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific
regulatory bodies.

Monitoring methods
BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessm
exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

Derived No Effect Level (DNEL) No information available

Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral				
Dermal				
Inhalation				

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Measures
None under normal use conditions.

Personal protective equipment

Eye Protection Safety glasses with side-shields (European standard - EN 166)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	> 480 minutes	0.11 mm	EN 374	As tested under EN374-3 Determina
Natural rubber				Resistance to Permeation by Chem
Neoprene				
PVC				

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the glo
(Refer to manufacturer/supplier for information)
Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the d of cuts, abrasion.
Remove gloves with care avoiding skin contamination.

Respiratory Protection No protective equipment is needed under normal use conditions.

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limi are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: Particle filter

Small scale/Laboratory use Maintain adequate ventilation

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground wat system.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	White	
Physical State	Crystalline Solid	
Odor	No information available	
Odor Threshold	No data available	
pH	7.9-8.3	(5 %)
Melting Point/Range	No data available	
Softening Point	No data available	

Boiling Point/Range	No information available	
Flash Point	No information available	Method - No information available
Evaporation Rate	Not applicable	Solid
Flammability (solid,gas)	No information available	
Explosion Limits	No data available	
Vapor Pressure	No data available	
Vapor Density	Not applicable	Solid
Specific Gravity / Density	1.619	
Bulk Density	No data available	
Water Solubility	58g/100ml (20°C)	
Solubility in other solvents	No information available	

Partition Coefficient (n-octanol/water)

Component	log Pow
Diammonium phosphate	-2.85

Autoignition Temperature		
Decomposition Temperature	100 °C	
Viscosity	Not applicable	Solid
Explosive Properties	No information available	
Oxidizing Properties	No information available	

9.2. Other information

Molecular Formula	H9 N2 O4 P
Molecular Weight	132.06

SECTION 10: STABILITY AND REACTIVITY

10.1.Reactivity

None known, based on information available

10.2. Chemical stability

No information available

10.3.Possibility of hazardous reactions

Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	No information available.

10.4.Conditions to avoid

Avoid dust formation. Incompatible products. Excess heat. Exposure to air.

10.5.Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases. copper. Copper alloys.

10.6.Hazardous decomposition products

Nitrogen oxides (NOx). Oxides of phosphorus. Ammonia.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1.Information on toxicological effects

Product Information

(a) acute toxicity;

Oral	Based on available data, the classification criteria are not met
Dermal	Based on available data, the classification criteria are not met
Inhalation	Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diammonium phosphate	6500 mg/kg (Rat)	>7950 mg/kg (Rabbit)	

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;
Respiratory No data available
Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; Not applicable

Solid

Other Adverse Effects The toxicological properties have not been fully investigated. See actual entry in RTEC complete information

Symptoms / effects,both acute and delayed No information available

SECTION 12: ECOLOGICAL INFORMATION

12.1.Toxicity

Ecotoxicity effects Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Diammonium phosphate	33 mg/L LC50 96 h 3.3 mg/L LC50 96 h 24.8 - 29.4 mg/L LC50 96 h 26.5 mg/L LC50 96 h			

12.2. Persistence and degradability

Persistence Soluble in water, Persistence is unlikely, based on information available.

Degradability Not relevant for inorganic substances.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Diammonium phosphate	-2.85	No data available

12.4. Mobility in soil The product is water soluble, and may spread in water systems Will likely be mobile environment due to its water solubility. Highly mobile in soils

12.5.Results of PBT and vPvB assessment No data available for assessment.

12.6.Other adverse effects

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

Persistent Organic Pollutant This product does not contain any known or suspected substance

Ozone Depletion Potential This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1.Waste treatment methods

Waste from Residues / Unused Products: Waste is classified as hazardous. Dispose of in accordance with the European Directive on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging: Dispose of this container to hazardous or special waste collection point.

European Waste Catalogue (EWC): According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

Other Information: Do not dispose of waste into sewer. Waste codes should be assigned by the user base the application for which the product was used. Do not empty into drains.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO: Not regulated

14.1.UN number
14.2.UN proper shipping name
14.3.Transport hazard class(es)
14.4.Packing group

ADR: Not regulated

14.1.UN number
14.2.UN proper shipping name
14.3.Transport hazard class(es)
14.4.Packing group

IATA: Not regulated

14.1.UN number
14.2.UN proper shipping name
14.3.Transport hazard class(es)
14.4.Packing group

14.5. Environmental hazards: No hazards identified

14.6. Special precautions for user: No special precautions required

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories X = listed

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Diammonium phosphate	231-987-8	-		X	X	-	X	X	X	X	X

National Regulations

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Diammonium phosphate	WGK 1	

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.
Take note of Dir 94/33/EC on the protection of young people at work
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical age
work

15.2.Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: OTHER INFORMATION

Full Text of H-/EUH-Statements Referred to Under Section 3

Legend

CAS - Chemical Abstracts Service
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japanese Existing and New Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit
TWA - Time Weighted Average
ACGIH - American Conference of Governmental Industrial Hygienists
IARC - International Agency for Research on Cancer
DNEL - Derived No Effect Level
PNEC - Predicted No Effect Concentration
RPE - Respiratory Protective Equipment
LD50 - Lethal Dose 50%
LC50 - Lethal Concentration 50%
EC50 - Effective Concentration 50%
NOEC - No Observed Effect Concentration
POW - Partition coefficient Octanol:Water
PBT - Persistent, Bioaccumulative, Toxic
vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road
ICAO/IATA - International Civil Aviation Organization/International Air Transport Association
IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code
MARPOL - International Convention for the Prevention of Pollution from Ships
OECD - Organisation for Economic Co-operation and Development
ATE - Acute Toxicity Estimate
BCF - Bioconcentration factor
VOC - Volatile Organic Compounds

Key literature references and sources for data
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice
Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Creation Date	Oct-2013
Next Revision Date	Oct-2023
Revision Summary	SDS section 1 updated and update of Format

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This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet