

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

1.1 Product identifier

Product name : AMMONIUM PHOSPHATE (DAP) Granular 18-46-0

REACH Registration number

Registration number	Substance
01-2119490974-22	diammonium hydrogenorthophosphate

Product code : 1527-27930, 1527-27975, 1527-28973

Product description : EC FERTILISER Compound fertiliser NP 18-46

Product type : Solid.

Other means of identification : DAP

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

Identified uses	
Fertilisers. Fire protection systems.	
Uses advised against	Reason
None.	Not classified as dangerous

1.3 Details of the supplier of the safety data sheet

Agrium Europe SA
Avenue Louise 326/36
1050 Bruxelles
Belgium
Tel : +32 (0)2 646 70 00
Fax : +32 (0)2 646 68 60
agrium@agrium.eu

e-mail address of person responsible for this SDS : productsafety@agrium.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number :

- AUSTRIA +43 1 40 400 2222
- BELGIUM +32 70 245 245
- BULGARIA +359 2 9154 409
- CZECH REPUBLIC +42 2 2491 9293 or +42 2 2491 5402
- DENMARK +45 82 12 12 12
- FINLAND +358 9 471 977
- FRANCE:
 - ANGERS 02 41 48 21 21
 - BORDEAUX 05 56 96 40 80
 - LILLE 0 825 812 822
 - LYON 04 72 11 69 11
 - MARSEILLE 04 91 75 25 25
 - NANCY 03 83 32 36 36
 - PARIS 01 40 05 48 48
 - RENNES 02 99 59 22 22
 - STRASBOURG 03 88 37 37 37
 - TOULOUSE 05 61 77 74 47
- GERMANY:
 - Berlin +49 30 19240
 - Bonn +49 228 287 3211
 - Erfurt +49 361 730 730
 - Freiburg +49 761 19240
 - Gottingen +49 551 19240

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

Homburg/Saar	+49 6841 19240
Mainz	+49 6841 19240
Munich	+49 89 19240
Nurenberg	+49 911 3892665
GREECE	+30 10 779 3777
HUNGARY	+36 80 20 11 99
ICELAND	+354 525 111, +354 543 2222
IRELAND (REPUBLIC OF)	+353 1 8379964
ITALY:	
Bologna	+39 051 647 8955
Catania	+39 095 25 4409
Cesena	+39 054 735 2612
Chieti	+39 87 134 5362
Firenze	+39 055 794 6150
Genoa	+39 10 352 808
Lecce	+39 0832 68 5374
Milan	+39 02 6610 1029
Naples	+39 081 45 9802
Pavia	+39 03 822 4444
Pordenone	+39 0434 399335
Reggio Calabria	+39 96 581 1624
Roma	+39 06 305 4343
Torino	+39 011 663 7637
Trieste	+39 04 0378 5373
LATVIA	+371 704 2468
LITHUANIA	+370 2 36 20 52, +370 2 36 20 92
NETHERLANDS	+31 30 274 88 88
POLAND:	
Gdansk	+48 58 301 65 16 or +48 58 349 2831
Krakow	+48 12 411 99 99
Lòdz	+48 42 63 14 724
Lublin	+48 81 740 2675 or +48 81 740 2676
Poznan	+48 61 84 769 46
Rzeszów	+48 17 86 64 000 or +48 17 86 64 404
Sosnowiec	+48 32 266 11 45
Warszawa	+48 22 619 66 54; +48 22 619 08 97
Wroclaw	+48 71 343 30 08 or +48 71 789 02 14
PORTUGAL	+351 21 330 3284
ROMANIA	+40 21 230 8000
SLOVAKIA	+421 2 54 77 4 166
SLOVENIA	+ 386 41 650 500
SPAIN:	
Barcelona	+34 93 227 98 33 or +34 93 227 54 00 bleep 190
Madrid	+34 91 562 04 20
Sevilla	+34 95 437 12 33
SWEDEN	+46 8 33 12 31 (International) 112 (National)
SWITZERLAND Liechtenstein)	+41 44 251 51 51 (145 from within Switzerland and
TURKEY	0 800 314 7900 (Turkey) only, or +90 0312 433 70 01
UNITED KINGDOM	+44 (0)20 7188 0100

Supplier

Telephone number : Agrium Europe
EMERGENCY TELEPHONE NUMBERS:
Transportation: 00-1-303-389-1654
Medical: 00-1-303-389-1654

Hours of operation : 24 / 7 / 365

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Not classified.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mono-constituent substance

Classification according to Directive 1999/45/EC [DPD]

Europe

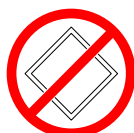
Not classified as dangerous

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Avoid release to the environment.

Response : Collect spillage.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : Not available.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mono-constituent substance

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
Europe diammonium hydrogenorthophosphate	REACH #: 01-2119490974-22 EC No.: 231-987-8 CAS: 7783-28-0	70-100	Not classified.	Not classified.	[A]
monoammonium phosphate	REACH #: 01-2119488166-29 EC: 231-764-5 CAS: 7722-76-1	0-<10	Not classified.	Not classified.	[B]
ammonium sulphate	REACH Reg.#: 01-2119455044-46 EC: 231-984-1 CAS: 7783-20-2	0-<10	Not classified.	Not classified.	[B]
Calcium sulphate	REACH #: 01-2119444918-26 EC: 231-900-3 CAS: 10101-41-4	0-<10	Not classified.	Not classified.	[B]

Type

SECTION 3: Composition/information on ingredients

- [A] Constituent
 [B] Impurity
 [C] Stabilising additive

Occupational exposure limits, if available, are listed in Section 8.

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

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : No special measures are typically indicated. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed.
- Skin contact** : Wash with soap and water.
- 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. Get medical attention if adverse health effects persist or are severe.
- Protection of first-aiders** : No evidence of risk to humans.

4.2 Most important symptoms and effects, both acute and delayed**Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : 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.

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

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 nitrogen oxides
 phosphorus oxides

5.3 Advice for firefighters

SECTION 5: Firefighting measures

- 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.
- 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : May be harmful to the environment if released in large quantities. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt 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). Water polluting material. Collect spillage.

6.3 Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. or Recover the material and use it for its intended purpose.
- Large spill** : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. or Recover the material and use it for its intended purpose.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Do not ingest. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Hygroscopic. Keep container tightly closed.
- 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.

7.2 Conditions for safe storage, including any incompatibilities

- : Store in accordance with local regulations. Hygroscopic. Keep container tightly closed.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
<p>Europe No exposure limit value known.</p> <p>Latvia diammonium hydrogenorthophosphate</p>	<p>LV Nat. Standardisation and Meterological Centre (Latvia, 5/2007). TWA: 6 mg/m³ 8 hour(s).</p>

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
diammonium hydrogenorthophosphate	DNEL	Long term Inhalation	6.1 mg/m ³	Workers	Systemic

DEL Summary : Very low toxicity to humans or animals.

Predicted effect concentrations

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
diammonium hydrogenorthophosphate	PNEC	Fresh water	1.7 mg/l	Assessment Factors

PEC Summary : Very low acute toxicity to fish.

8.2 Exposure controls

Appropriate engineering controls : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : 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.

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. Possible: safety glasses with side-shields

Skin protection

Hand protection : Not recommended

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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 : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.

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.

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

Physical state	: Solid.
Colour	: Not available.
Odour	: Odourless.
Odour threshold	: Not available.
pH	: Not available.
Melting point/freezing point	: 155°C
Initial boiling point and boiling range	: Decomposes.
Flash point	: [Product does not sustain combustion.]
Flammability (solid, gas)	: Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture.
Vapour pressure	: 0.000076 kPa [20°C]
Vapour density	: Not available.
Relative density	: 1.6
Solubility(ies)	: Easily soluble in the following materials: hot water. Soluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: 155°C
Explosive properties	: Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture.
Oxidising properties	: Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Not considered to be reactive.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: No specific data.
10.5 Incompatible materials	: No specific data.
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute tox**

Product/ingredient name	Result	Species	Dose	Exposure
diammonium hydrogenorthophosphate	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5 mg/l	4 hours
	LD50 Dermal	Rat - Male, Female	>5000 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-

Conclusion/Summary : Very low toxicity to humans or animals.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
diammonium hydrogenorthophosphate	Skin - Oedema	Rabbit	0	72 hours	-
	Eyes - Cornea opacity	Rabbit	0	72 hours	-

Conclusion/Summary

Skin : Non-irritating to the skin.

Eyes : Non-irritating to the eyes.

Respiratory : Non-irritating (EU).

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
diammonium hydrogenorthophosphate	skin	Mouse	Not sensitizing

Conclusion/Summary

Skin : Non-sensitiser to skin.

Respiratory : Non-sensitiser to lungs.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
diammonium hydrogenorthophosphate	471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
diammonium hydrogenorthophosphate	Negative	Negative	Negative	Rat - Male, Female	Oral: 1500 mg/kg	-

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

Teratogenicity

Conclusion/Summary : No teratogenic effect.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

SECTION 11: Toxicological information**Symptoms related to the physical, chemical and toxicological characteristics**

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
diammonium hydrogenorthophosphate	Chronic NOAEL Oral	Rat - Male, Female	250 mg/kg	-

Conclusion/Summary	: Not available.
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
diammonium hydrogenorthophosphate	Acute LC50 120 ug/L Fresh water	Fish - Tilapia mossambica - Juvenile (Fledgling, Hatchling, Weanling) - 2 to 2.9 g	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : According to EC criteria: Readily biodegradable

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc})	: Not available.
Mobility	: Not available.

12.5 Results of PBT and vPvB assessment

PBT	: No.
Not vPvB.	: No.

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

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods**Product**

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. 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.

Hazardous waste : Non-hazardous waste

European waste catalogue (EWC)

Waste code	Waste designation
06 13 99	wastes not otherwise specified

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-		
14.3 Transport hazard class(es)				
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user	Not available.	Not available.	Not available.	Not available.
Additional information	-	-		

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorisation****Substances of very high concern**

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Europe inventory : This material is listed or exempted.

National regulations**France**

Reinforced medical surveillance : Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable

15.2 Chemical Safety Assessment : Not available.

SECTION 16: Other information

Revision comments : Section 1 Emergency telephone number of the company
Section 1. Product identification

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Europe

Full text of abbreviated H statements : Not applicable.

Full text of classifications [CLP/GHS] : Not applicable.

Date of issue/ Date of revision : 5/22/2012.

Version : 2.2

Notice to reader**DISCLAIMER AND LIMITATION OF LIABILITY**

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AMMONIUM PHOSPHATE (DAP) Granular 18-46-0

FURTHERMORE, THE RECIPIENT ASSUMES ALL RISK IN CONNECTION WITH THE USE OF THE MATERIAL. THE RECIPIENT ASSUMES ALL RESPONSIBILITY FOR ENSURING THE MATERIAL IS USED IN A SAFE MANNER IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL, HEALTH, SAFETY AND SECURITY LAWS, POLICIES AND GUIDELINES. THE SUPPLIER DOES NOT WARRANT THE MERCHANTABILITY OF THE MATERIAL OR THE FITNESS OF THE MATERIAL FOR ANY PARTICULAR USE AND ASSUMES NO RESPONSIBILITY FOR INJURY OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY OR RELATED TO THE USE OF THE MATERIAL.