



Europe

## SAFETY DATA SHEET

### DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

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

##### 1.1 Product identifier

**Product name** : DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0  
**EC number** : 231-987-8

##### REACH Registration number

Registration number	Substance Identification
01-2119490974-22-XXXX	Diammonium phosphate

**Product code** : 1527-27930; 1527-27975; 1527-30127; 1527-30277; 1527-30651; 4166-27930, 4660-27930  
**Product description** : EC FERTILISER Compound fertiliser, granular NP 18-46  
**Product type** : Solid.  
**Other means of identification** : Synonym: DAP

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

Identified uses	
Fertiliser. Manufacture of chemical products. Manufacture of speciality fertilisers.	
Uses advised against	Reason
None.	Non-hazardous product.

##### 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** : Agrium Safety Data Sheets are available in many languages at <http://www.agrium.com/products/ae>  
Physicians, Poison Centres, or the Public may contact Agrium's Global Emergency Response Number 24/7/365 for service in many languages at +1 303 389 1654

AUSTRIA +43 1 406 43 43  
AZERBAIJAN +994 125 979 924  
BELARUS +375 17 287 00 92  
BELGIUM +32 70 245 245  
BULGARIA +359 2 9154 378; +359 887 435 325  
CROATIA +385 1 2348 342  
CZECH REPUBLIC +420 22 49 195 93  
DENMARK +45 82 12 12 12  
ESTONIA 16662; +372 62 69 379  
FINLAND +358 9 471977  
FRANCE Angers +33 (0)2 41 48 21 21

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

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

Bordeaux +33 (0)5 56 96 40 80  
Lille 0800 59 59 59 (national callers)  
Lyon +33 (0)4 72 11 69 11  
Marseille +33 (0)4 91 75 25 25  
Nancy +33 (0)3 83 22 50 50  
Paris +33 (0)1 40 05 48 48  
Rennes +33 (0)2 99 59 22 22  
Strasbourg +33 (0)3 88 37 37 37  
Toulouse +33 (0)5 61 77 74 47  
GEORGIA +995 99 53 33 20  
GERMANY  
Berlin +49 30 192 40  
Bonn +49 228 192 40  
Erfurt +49 361 730 730  
Freiburg +49 761 192 40  
Goettingen +49 551 192 40  
Homburg (Saar) +49 6841 192 40  
Mainz +49 6131 192 40  
Munich +49 89 192 40  
GREECE +30 21 07 79 37 77  
HUNGARY +36 80 20 11 99  
ICELAND +354 543 22 22  
IRELAND +353 1 837 9964 (medical professionals) +353 1 809 2166 (public)  
ISRAEL +972 4 854 19 00  
ITALY  
Bergamo +39 800 883 300  
Firenze +39 55 794 7819  
Foggia +39 881 732 326  
Genoa +39 10 563 62 45  
Milan +39 02 6610 1029  
Padova +39 49 827 50 78  
Pavia +39 38 224 444  
Rome +39 06 305 43 43  
Turin +39 011 663 7637  
KAZAKHSTAN +7 3272 925 868  
LITHUANIA +370 5 236 20 52; +370 687 533 78  
NETHERLANDS +31 30 274 88 88  
NORWAY +47 22 59 13 00  
POLAND  
Gdansk +48 58 682 04 04  
Krakow +48 12 411 99 99  
Łódz +48 42 63 14 724  
Sosnowiec +48 32 266 11 45  
Warszawa +48 22 619 66 54  
Wroclaw +48 71 343 30 08  
PORTUGAL 808 250 143 (national callers)  
ROMANIA +402 212 106 282  
RUSSIAN FEDERATION  
Ekaterinburg +7 343 229 98 57  
Moscow +7 495 628 1687  
Saint-Petersburg +7 921 757 3228  
SERBIA +381 11 3608 440  
SLOVAKIA +421 2 5477 4166  
SLOVENIA +386 41 635 500  
SPAIN +34 91 562 0420  
SWEDEN 112 (national callers); +46 (0)10 456 6700  
SWITZERLAND +41 44 251 51 51 (in Switzerland dial 145)  
THE FORMER YUGOSLAVIA +38 923 147 635  
TURKEY +90 0312 433 70 01 or 0 800 314 7900  
UNITED KINGDOM  
Belfast 844 892 0111  
Birmingham 844 892 0111  
Edinburgh 844 892 0111  
Newcastle Upon Tyne +44 191 2606182; +44 191 2606180

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

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

Penarth 844 892 0111

### Supplier

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

**Hours of operation** : 24/7/365

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mono-constituent substance

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is NOT classified as hazardous according to Regulation (EC) 1272/2008 as amended.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : No signal word.

**Hazard statements** : No known significant effects or critical hazards.

#### 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** : Not applicable.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : Not applicable.

**Hazardous ingredients** : Diammonium phosphate

#### Special packaging requirements

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

### 2.3 Other hazards

**Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII** : Not applicable.

**Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : Not applicable.

**Other hazards which do not result in classification** : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 3: Composition/information on ingredients

**3.1 Substances** : Mono-constituent substance

Product/ingredient name	Identifiers	%	<u>Classification</u> Regulation (EC) No. 1272/2008 [CLP]	Type
<b>Europe</b>				
Diammonium hydrogenorthophosphate	EC: 231-987-8 CAS: 7783-28-0 REACH Reg. #: 01-2119490974-22-XXXX	>70	Not classified.	[A]
Monoammonium phosphate	EC: 231-764-5 CAS: 7722-76-1 REACH Reg. #: 01-2119488166-29-XXXX	<10	Not classified.	[B]
Ammonium sulphate	REACH #: 01-2119455044-46 EC: 231-984-1 CAS: 7783-20-2	<9.89	Not classified.	[B]
Calcium sulphate, dihydrate	EC: 231-900-3 CAS: 10101-41-4 REACH Reg. #: 01-2119444918-26-XXXX	<10	Not classified.	[B]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[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

<b>Eye contact</b>	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Inhalation</b>	: No special measures are typically indicated. Get medical attention if symptoms occur. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>Skin contact</b>	: Wash with soap and water.
<b>Ingestion</b>	: 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 symptoms occur.
<b>Protection of first-aiders</b>	: No action shall be taken involving any personal risk or without suitable training.

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

#### Potential acute health effects

<b>Eye contact</b>	: May cause irritation due to mechanical action.
<b>Inhalation</b>	: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
<b>Skin contact</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: Adverse symptoms may include the following: irritation redness
<b>Inhalation</b>	: Adverse symptoms may include the following: respiratory tract irritation coughing

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 4: First aid measures

- 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. Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Non-flammable. Material will not burn. 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** : No specific fire or explosion hazard.  
**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
nitrogen oxides  
sulfur oxides

### 5.3 Advice for firefighters

- 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.  
**Additional information** : Contain and collect the water used to fight the fire for later treatment and disposal.

## 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. Avoid breathing dust.  
**For emergency responders** : If specialised 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".

### 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).

### 6.3 Methods and material 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. Dispose of via a licensed waste disposal contractor.  
or  
Recover the material and use it for its intended purpose.
- Large spill** : Recover the material and use it for its intended purpose. Recycle to process, if possible.

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 6: Accidental release measures

- 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

If applicable: 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** : Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust.
- 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. Do not ingest. 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. 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. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. Absorbs moisture on long-term storage under high humidity conditions. Must be stored in a dry location. May form steep piles that can collapse without warning when stored in bulk. Avoid forming steep slopes when removing product.

### 7.3 Specific end use(s)

- Recommendations** : Not available. Non-hazardous substance.
- Industrial sector specific solutions** : Not available. Non-hazardous substance.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
<b>Europe</b> No exposure limit value known.	
<b>Belgium</b> Calcium sulphate, dihydrate	<b>Lijst Grenswaarden / Valeurs Limites (Belgium, 4/2014).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
<b>Bulgaria</b> Ammonium sulphate	<b>България Министерство на труда и социалната политика и Министерството на здравеопазването (Bulgaria, 1/2012).</b> Limit value 8 hours: 10 mg/m <sup>3</sup> 8 hours.
<b>Croatia</b> Calcium sulphate, dihydrate	<b>MinGoRP GVI/KGVI (Croatia, 6/2013).</b> ELV: 4 mg/m <sup>3</sup> 8 hours. Form: respirable dust ELV: 10 mg/m <sup>3</sup> 8 hours. Form: total dust
<b>Latvia</b> Diammonium phosphate	<b>Ministrū kabineta - AER (Latvia, 2/2011).</b> TWA: 6 mg/m <sup>3</sup> 8 hours.
<b>Portugal</b> Calcium sulphate, dihydrate	<b>Instituto Português da Qualidade (Portugal, 3/2007).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: inhalable fraction

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 8: Exposure controls/personal protection

### Slovakia

Calcium sulphate, dihydrate

### Nariadenie vlády SR c. 355/2006 (Slovakia, 12/2011).

TWA: 4 mg/m<sup>3</sup>, (Calcium sulphate) 8 hours. Form: inhalable fraction  
TWA: 1.5 mg/m<sup>3</sup>, (Calcium sulphate) 8 hours. Form: respirable fraction

### Spain

Calcium sulphate, dihydrate

### INSHT (Spain, 1/2014).

TWA: 10 mg/m<sup>3</sup> 8 hours.

### Switzerland

Calcium sulphate, dihydrate

### SUVA (Switzerland, 1/2014).

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Inhalable dust (total dust)  
TWA: 3 mg/m<sup>3</sup> 8 hours. Form: Respirable dust (particulate matter)

### United Kingdom (UK)

Calcium sulphate, dihydrate

### EH40/2005 WELs (United Kingdom (UK), 12/2011).

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: inhalable dust  
TWA: 4 mg/m<sup>3</sup> 8 hours. Form: respirable dust

### 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 monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Diammonium phosphate	DNEL	Long term Inhalation	6.1	Workers	Systemic
Monoammonium phosphate	DNEL	Long term Inhalation	6.1	Workers	Systemic
Ammonium sulphate	DNEL	Long term Inhalation	11.2	Workers	Systemic

**DNEL/DMEL Summary** : Very low toxicity to humans or animals.

### PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
Diammonium phosphate	Fresh water	1.7	Assessment Factors
Monoammonium phosphate	Fresh water	1.7	Assessment Factors
Ammonium sulphate	Fresh water	0.53	Assessment Factors

**PNEC Summary** : Very low acute toxicity to fish.

## 8.2 Exposure controls

### Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### 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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

## SECTION 8: Exposure controls/personal protection

<b>Eye/face protection</b>	: 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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentrations to be produced, use dust goggles.
<b><u>Skin protection</u></b>	
<b>Hand protection</b>	: 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.
<b>Body protection</b>	: 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. Cotton or cotton/synthetic overalls or coveralls are normally suitable.
<b>Other skin protection</b>	: 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. Recommended: Suitable protective footwear.
<b>Respiratory protection</b>	: No personal respiratory protective equipment is normally required. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.
<b>Environmental exposure controls</b>	: 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

<b>Physical state</b>	: Solid. [Crystalline granules.]
<b>Colour</b>	: Off-white or Black to Brownish-red.
<b>Odour</b>	: Odourless.
<b>Odour threshold</b>	: Not available.
<b>pH</b>	: Not available.
<b>Melting point/freezing point</b>	: 189.85°C
<b>Initial boiling point and boiling range</b>	: Not applicable. Decomposes.
<b>Flash point</b>	: [Product does not sustain combustion.]
<b>Evaporation rate</b>	: Not applicable.
<b>Flammability (solid, gas)</b>	: Non-flammable.
<b>Upper/lower flammability or explosive limits</b>	: Not applicable.
<b>Vapour pressure</b>	: 0 kPa [room temperature]
<b>Vapour density</b>	: Not applicable.
<b>Relative density</b>	: 1.6
<b>Solubility(ies)</b>	: Easily soluble in the following materials: hot water. Soluble in the following materials: cold water.
<b>Solubility in water</b>	: >100 g/l
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not applicable.
<b>Decomposition temperature</b>	: 155°C
<b>Viscosity</b>	: Not applicable.
<b>Explosive properties</b>	: Not applicable.

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 9: Physical and chemical properties

**Oxidising properties** : Not available.

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**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 toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Diammonium phosphate	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	-
Monoammonium phosphate	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5 mg/l	4 hours
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Mouse - Male, Female	3040 mg/kg	-
Ammonium sulphate	LD50 Oral	Rat	2840 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral			

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

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Diammonium phosphate	Skin	Rabbit	0	72 hours	-
	Eyes	Rabbit	0	72 hours	-
Monoammonium phosphate	Skin	Rabbit	0	-	-
	Eyes	Rabbit	0	-	-
Ammonium sulphate	Skin	Rabbit	0	20 hours	24 hours
	Eyes	Rabbit	0	-	72 hours

#### Conclusion/Summary

**Skin** : Non-irritating to the skin.

**Eyes** : Non-irritating to the eyes.

**Respiratory** : Non-irritating (EU).

#### Sensitisation

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 11: Toxicological information

Product/ingredient name	Route of exposure	Species	Result
Diammonium phosphate	skin	Mouse	Not sensitizing
Monoammonium phosphate	skin	Mouse	Not sensitizing
Ammonium sulphate	skin	Guinea pig	Not sensitizing

### Conclusion/Summary

**Skin** : Non-sensitiser to skin.

**Respiratory** : Non-sensitiser to lungs.

### Mutagenicity

Product/ingredient name	Test	Experiment	Result
Diammonium phosphate	471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
Monoammonium phosphate	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
Ammonium sulphate	OECD 476	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic	Negative
	OECD 473	Experiment: In vitro Subject: Mammalian-Animal Cell: Germ	Negative

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

### Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium sulphate	Negative - Oral - TCLo	Rat - Male, Female	1288 mg/kg	2 years; 7 days per week

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

### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
Diammonium phosphate	Negative	Negative	Negative	Rat - Male, Female	Oral: 1500 mg/kg	-
Monoammonium phosphate	Negative	Negative	Negative	Rat - Male, Female	Oral: >1500 mg/kg	-
Ammonium sulphate	Negative	Negative	-	Mouse - Male, Female	Oral: 5000 mg/kg	-

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

### Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Monoammonium phosphate	Negative - Oral	Rat - Male, Female	>1500 mg/kg	-
Ammonium sulphate	Negative - Oral	Rat - Male, Female	1500 mg/kg	-

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

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 11: Toxicological information

**Information on likely routes of exposure** : Routes of entry anticipated: Inhalation.

### Potential acute health effects

- Eye contact** : May cause irritation due to mechanical action.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
irritation  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

### Delayed and immediate effects as well as 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	Result	Species	Dose	Exposure
Diammonium phosphate	Chronic NOAEL Oral	Rat - Male, Female	250 mg/kg	-
Monoammonium phosphate	Chronic NOAEL Oral	Rat - Male, Female	250 mg/kg	-
Ammonium sulphate	Chronic NOAEL Oral	Rat - Male, Female	256 mg/kg	52 weeks; 7 days per week

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

- 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.

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Diammonium phosphate	Acute LC50 1700 mg/l Fresh water	Fish - Cirrhinus mrigala/L. Rohita - Fry	96 hours
Monoammonium phosphate	LC50 >85.9 mg/l Fresh water	Fish	96 hours
Ammonium sulphate	Acute LC50 2.6 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Young	48 hours
	Acute LC50 14000 µg/l Fresh water	Daphnia - Daphnia magna - Young	48 hours
	Acute LC50 53 mg/l	Fish - Oncorhynchus mykis	96 hours

Conclusion/Summary : Practically non-toxic to aquatic organisms.

### 12.2 Persistence and degradability

Conclusion/Summary : According to EC criteria: Readily biodegradable

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Diammonium phosphate	-	-	Readily

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Mobility : Not available.

### 12.5 Results of PBT and vPvB assessment

PBT : Not applicable.  
P: Not available. B: Not available. T: Not available.

vPvB : Not applicable.  
vP: Not available. vB: Not available.

### 12.6 Other adverse effects

: No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

If applicable: 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. 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.
Hazardous waste	: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

#### European waste catalogue (EWC)

Waste code	Waste designation
06 13 99	wastes not otherwise specified

#### Packaging

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 13: Disposal considerations

<b>Methods of disposal</b>	: 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.
<b>Special precautions</b>	: This material and its container must be disposed of in a safe way. 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	IMDG	IATA
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-	-
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : 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

#### Annex XIV

None of the components are listed.

#### 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** : All components are listed or exempted.

#### Seveso III Directive

This product is not controlled under the Seveso III Directive.

#### National regulations

**Limitation of the use of organic solvents** : Permitted.

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 15: Regulatory information

### Denmark

**MAL-code** : 00-1

### France

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

### Germany

**Storage class (TRGS 510)** : 13

**Hazardous incident ordinance** : Applicable. Category: 9a Dangerous for the environment.

**Hazard class for water** : 1 Appendix No. 3

**Technical instruction on air quality control** : TA-Luft Number 5.2.1: 70-100%

### Italy

**D.Lgs. 152/06** : Not classified.

### Netherlands

**Water Discharge Policy (ABM)** : {5} Very toxic to aquatic organisms. Abatement effort: B

### Switzerland

**VOC content** : Exempt.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

**Australia** : All components are listed or exempted.

**Canada** : All components are listed or exempted.

**China** : All components are listed or exempted.

**Japan** : All components are listed or exempted.

**Malaysia** : Not determined.

**New Zealand** : All components are listed or exempted.

**Philippines** : All components are listed or exempted.

**Republic of Korea** : All components are listed or exempted.

**Taiwan** : All components are listed or exempted.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments are still required.

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 16: Other information

**Revision comments** : Reference to classifications under Directive 1999/45/EC have been removed in accordance with current regulatory requirements given in Regulation (EC) No. 1272/2008, and Regulation (EC) No. 1907/2006.

⊿ Indicates information that has changed from previously issued version.

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

**Key literature references and sources for data** : REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 18 DECEMBER 2006, with successive adaptations, amendments, and corrigenda.  
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 16 DECEMBER 2008, with successive adaptations, amendments, and corrigenda.  
ECHA, European Chemicals Agency, Classification and Labelling Database  
DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 4 JULY 2012  
European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), latest revision.  
Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods, with successive amendments.  
REGULATION (EC) No 2003/2003 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 13 OCTOBER 2003 RELATING TO FERTILISERS, with successive adaptations, amendments, and corrigenda.  
American Conference of Governmental Industrial Hygienists, Threshold Limit Values for Chemical Substances, latest edition.  
Corrosion Data Survey, Sixth Edition, 1985, National Association of Corrosion Engineers  
ERG 2012 Emergency Response Guidebook  
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans.  
The Fertilizer Institute, Toxicity Testing Results, March 2003  
Substance Information Exchange Forum Database

### 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 printing** : 8/24/2016

**Date of issue/ Date of revision** : 8/24/2016

**Date of previous issue** : 9/22/2015

**Version** : 3.1

### Notice to reader

### DISCLAIMER AND LIMITATION OF LIABILITY

The information and recommendations contained in this Safety Data Sheet ("SDS") relate only to the specific material referred to herein (the "Material") and do not relate to the use of such Material in combination with any other material or process. The information and recommendations contained herein are believed to be current and correct as of the date of this SDS. HOWEVER, THE INFORMATION AND RECOMMENDATIONS ARE PRESENTED WITHOUT WARRANTY, REPRESENTATION OR LICENSE OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THEIR ACCURACY, CORRECTNESS OR COMPLETENESS, AND THE SELLER, SUPPLIER AND

DIAMMONIUM PHOSPHATE (DAP) Granular 18-46-0

## SECTION 16: Other information

MANUFACTURER OF THE MATERIAL AND THEIR RESPECTIVE AFFILIATES (COLLECTIVELY, THE "SUPPLIER") DISCLAIM ALL LIABILITY FOR RELIANCE ON SUCH INFORMATION AND RECOMMENDATIONS. This SDS is not a guarantee of safety. A buyer or user of the Material (a "Recipient") is responsible for ensuring that it has all current information necessary to safely use the Material for its specific purpose.

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.