



## SAFETY DATA SHEET

### Compound Fertilizer, Granular, 12-27-0 +25 SO<sub>3</sub> +2 MgO

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

##### 1.1 Product identifier

**Product name** : Compound Fertilizer, Granular, 12-27-0 +25 SO<sub>3</sub> +2 MgO

##### REACH Registration number

Registration number	Substance Identification
01-2119488166-29-XXXX 01-2119455044-46-XXXX Exempt from REACH registration according to Article 2 (7) (a) and (b), Annex V: Category: 10, "Magnesia"	Ammonium dihydrogen orthophosphate Ammonium sulphate Magnesium oxide

**Product code** : 3336-27970

**Product description** : EC FERTILISER Compound fertiliser, granular 12-27-0 +25 SO<sub>3</sub> +2MgO

**Product type** : Solid.

**Other means of identification** : Not available.

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

Identified uses	
Fertiliser.	
Uses advised against	Reason
Not applicable.	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 +358 1 2348 342  
CZECH REPUBLIC +420 22 49 195 93  
DENMARK +45 82 12 12 12

Compound Fertilizer, Granular, 12-27-0 +25 SO<sub>3</sub> +2 MgO

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

ESTONIA 16662; +372 62 69 379  
FINLAND +358 9 471977  
FRANCE  
Angers +33 (0)2 41 48 21 21  
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  
Łódź +48 42 63 14 724  
Sosnowiec +48 32 266 11 45  
Warszawa +48 22 619 66 54  
Wrocław +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

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

Belfast 844 892 0111  
Birmingham 844 892 0111  
Edinburgh 844 892 0111  
Newcastle Upon Tyne +44 191 2606182; +44 191 2606180  
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** : Mixture

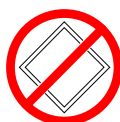
#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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** : Not applicable.

**Hazard statements** : Not applicable.

#### Precautionary statements

**Prevention** : Not applicable.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : Not applicable.

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

#### Special packaging requirements

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

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

### 2.3 Other hazards

P: Not available. B: Not available. T: Not available.  
vP: Not available. vB: Not available.

**Other hazards which do not result in classification** : None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	<u>Classification</u> Regulation (EC) No. 1272/2008 [CLP]	Type
<b>Europe</b> Ammonium dihydrogen orthophosphate	REACH Reg.#: 01-2119488166-29-XXXX EC No.: 231-764-5 CAS #: 7722-76-1	52	Not classified.	
Ammonium sulphate	REACH Reg.#: 01-2119455044-46-XXXX EC No.: 231-984-1 CAS #: 7783-20-2	38	Not classified.	[2]
Magnesium oxide	EC No.: 215-171-9 CAS #: 1309-48-4	2	Not classified.	[2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

#### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

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>	: Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms occur. 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.
<b>Skin contact</b>	: Wash with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<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. Call a POISON CENTER or physician if you feel unwell.
<b>Protection of first-aiders</b>	: No action shall be taken involving any personal risk or without suitable training. Mouth-to-mouth resuscitation of oral exposure patients is not recommended. First-aiders with contaminated clothing should be properly decontaminated.

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

#### Potential acute health effects

<b>Eye contact</b>	: No known significant effects or critical hazards. May cause irritation due to mechanical action.
<b>Inhalation</b>	: No known significant effects or critical hazards.
<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>	: No specific data.
<b>Inhalation</b>	: No specific data.
<b>Skin contact</b>	: No specific data.

## SECTION 4: First aid measures

**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. For professional, multilingual, medical support, in case of medical emergencies involving Agrium products, telephone the Agrium global 24 hour Emergency Number: 00-1-303-389-1654

**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. Put on appropriate personal protective equipment.

**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. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle, if possible.  
or  
Dispose of via a licensed waste disposal contractor.

**Large spill** : No additional information.

## 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).  
**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Do not ingest. 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. Absorbs moisture on long-term storage under high humidity conditions. 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. 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** : Fertiliser.  
**Industrial sector specific solutions** : Not applicable. Non-hazardous product.

## 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>Austria</b> Magnesium oxide	<b>GKV_MAK (Austria, 12/2011).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: inhalable fraction PEAK: 20 mg/m <sup>3</sup> , 2 times per shift, 60 minutes. Form: inhalable fraction PEAK: 10 mg/m <sup>3</sup> , 2 times per shift, 60 minutes. Form: respirable fraction TWA: 5 mg/m <sup>3</sup> 8 hours. Form: respirable fraction TWA: 5 mg/m <sup>3</sup> 8 hours. Form: respirable fume PEAK: 20 mg/m <sup>3</sup> , 4 times per shift, 15 minutes. Form: respirable fume <b>GKV_MAK (Austria, 9/2007).</b> STEL: 10 mg/m <sup>3</sup> , 2 times per shift, 60 minutes. Form: respirable fraction
<b>Belgium</b> Magnesium oxide	<b>Lijst Grenswaarden / Valeurs Limites (Belgium, 4/2014).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: fume
<b>Bulgaria</b>	

## SECTION 8: Exposure controls/personal protection

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.
Magnesium oxide	<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>	
Magnesium oxide	<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>Czech Republic</b>	
Magnesium oxide	<b>MZCR PEL/NPK-P (Czech Republic, 1/2013).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. STEL: 10 mg/m <sup>3</sup> 15 minutes.
<b>Denmark</b>	
Magnesium oxide	<b>Arbejdstilsynet (Denmark, 10/2012).</b> TWA: 6 mg/m <sup>3</sup> , (calculated as Mg) 8 hours.
<b>Finland</b>	
Magnesium oxide	<b>Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 3/2014).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: dust
<b>France</b>	
Magnesium oxide	<b>Ministère du travail (France, 7/2012). Notes: Ministry of Labour (Brochure INRS Ed 984, July 2012). Indicative exposure limits</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: fume
<b>Germany</b>	
Magnesium oxide	<b>TRGS900 AGW (Germany, 4/2014).</b> TWA: 1.25 mg/m <sup>3</sup> 8 hours. Form: alveolar fraction PEAK: 20 mg/m <sup>3</sup> 15 minutes. Form: inhalable fraction TWA: 10 mg/m <sup>3</sup> 8 hours. Form: inhalable fraction
<b>Greece</b>	
Magnesium oxide	<b>Υπουργείο Εργασίας και Κοινωνικών Υποθέσεων (Greece, 2/2012).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: inhalable fraction TWA: 5 mg/m <sup>3</sup> 8 hours. Form: respirable fraction <b>PD 90/1999 (Greece, 8/2007).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: respirable fraction
<b>Hungary</b>	
Magnesium oxide	<b>25/2000. (IX. 30.) EüM-SzCsM együttes rendelet (Hungary, 12/2011). Skin sensitiser.</b> TWA: 6 mg/m <sup>3</sup> , (as Mg) 8 hours. Form: respirable fraction PEAK: 24 mg/m <sup>3</sup> , (as Mg) 15 minutes. Form: respirable fraction
<b>Iceland</b>	
Magnesium oxide	<b>Velferdarráðuneytið, Mengunarmarkaskrá (Iceland, 4/2009).</b> TWA: 6 mg/m <sup>3</sup> , (as Mg) 8 hours.
<b>Ireland</b>	
Magnesium oxide	<b>NAOSH (Ireland, 12/2011).</b> OELV-15min: 10 mg/m <sup>3</sup> 15 minutes. Form: fume OELV-8hr: 5 mg/m <sup>3</sup> 8 hours. Form: fume OELV-8hr: 10 mg/m <sup>3</sup> 8 hours. Form: inhalable dust OELV-8hr: 4 mg/m <sup>3</sup> 8 hours. Form: respirable dust
<b>Lithuania</b>	
Magnesium oxide	<b>Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007).</b> TWA: 4 mg/m <sup>3</sup> 8 hours.
<b>Norway</b>	
Magnesium oxide	<b>FOR-2011-12-06-1358 (Norway, 1/2013).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
<b>Poland</b>	



## SECTION 8: Exposure controls/personal protection

Magnesium oxide	<b>Ministra Pracy i Polityki Społecznej (Poland, 9/2007).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Dusts <b>Rozporządzenie Ministra Pracy i Polityki Społecznej (Dz.U. 2014 poz. 817) (Poland, 6/2014).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction
<b>Portugal</b> Magnesium oxide	<b>Instituto Português da Qualidade (Portugal, 3/2007).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: inhalable fraction
<b>Romania</b> Magnesium oxide	<b>HG 1218/2006 cu modificările și completările ulterioare (Romania , 1/2012).</b> VLA: 5 mg/m <sup>3</sup> 8 hours. Form: fume Short term: 15 mg/m <sup>3</sup> 15 minutes. Form: fume
<b>Slovakia</b> Magnesium oxide	<b>Nariadenie vlády Slovenskej republiky (Slovakia, 6/2007).</b> TWA: 4 mg/m <sup>3</sup> 8 hours. Form: inhalable aerosol <b>Nariadenie vlády SR c. 355/2006 (Slovakia, 12/2011).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: inhalable fraction TWA: 4 mg/m <sup>3</sup> 8 hours. Form: respirable fraction
<b>Spain</b> Magnesium oxide	<b>INSHT (Spain, 1/2014).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: dust and fume
<b>Switzerland</b> Magnesium oxide	<b>SUVA (Switzerland, 1/2014).</b> 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) <b>SUVA (Switzerland, 1/2007).</b> TWA: 3 mg/m <sup>3</sup> 8 hours. Form: respirable dust and fumes
<b>United Kingdom (UK)</b> Magnesium oxide	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> TWA: 10 mg/m <sup>3</sup> , (as Mg) 8 hours. Form: inhalable dust TWA: 4 mg/m <sup>3</sup> , (as Mg) 8 hours. Form: respirable dust and fume

**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
Ammonium dihydrogen orthophosphate	Long term	DERMAL	34,7 mg/kg bw/day	Workers	Systemic
Ammonium dihydrogen orthophosphate	Long term	Inhalation	6,1 mg/m <sup>3</sup>	Workers	Systemic
Ammonium sulphate	Long term	Dermal	42.7 mg/kg bw/day	Workers	Systemic
Ammonium sulphate	Long term	Inhalation	11.2 mg/m <sup>3</sup>	Workers	Systemic

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

### PNECs



## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Compartment Detail	Value	Method Detail
Ammonium dihydrogen orthophosphate	Freshwater	1,7 mg/l	Assessment Factors
Ammonium dihydrogen orthophosphate	Marine water	0,17 mg/l	Assessment Factors
Ammonium sulphate	Freshwater	0.312 mg/l	Assessment Factors
Ammonium sulphate	Marine water	0.0312 mg/l	Assessment Factors

**PNEC Summary** : Low acute toxicity to fish.

### 8.2 Exposure controls

**Appropriate engineering controls** : 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. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Goggles, face shield or other full-face protection should be worn if there is a risk of direct exposure to dust.

#### 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.

**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** : 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.

**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

<b>Physical state</b>	: Granular solid.
<b>Colour</b>	: Grey - Green.
<b>Odour</b>	: Odourless.
<b>Odour threshold</b>	: Not available.
<b>pH</b>	: Not available.
<b>Melting point/freezing point</b>	: Not available.
<b>Initial boiling point and boiling range</b>	: Decomposes.
<b>Flash point</b>	: Not applicable.
<b>Evaporation rate</b>	: Not applicable.
<b>Flammability (solid, gas)</b>	: Non-flammable.
<b>Burning time</b>	: Not available.
<b>Burning rate</b>	: Not available.
<b>Upper/lower flammability or explosive limits</b>	: Non-flammable. No flammable ingredients present.
<b>Vapour pressure</b>	: Not available.

## SECTION 9: Physical and chemical properties

Vapour density	: Not available.
Relative density	: 1,08
Solubility(ies)	: Soluble in the following materials: cold water and hot water.
Solubility in water	: Water soluble.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.
Explosive properties	: This material is not explosive.
Oxidising properties	: No oxidising ingredients present.

### 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. Incompatible with:  
strong acids  
strong alkalis  
Incompatible with halogens, hydrogen peroxide, chlorinated hydrocarbons, fluorine, nitric acid, oxidising agents and sulphuric acid.

**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
Ammonium dihydrogen orthophosphate	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
Ammonium sulphate	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-

**Conclusion/Summary** : Not available.

#### Acute toxicity estimates

Not available.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ammonium dihydrogen orthophosphate	Skin	Rabbit	0	-	72 hours
Ammonium sulphate	Skin	Rabbit	0	-	72 hours

#### Conclusion/Summary

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

## SECTION 11: Toxicological information

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

### Sensitisation

Product/ingredient name	Route of exposure	Species	Result
Ammonium dihydrogen orthophosphate	Skin	Mouse	Not sensitizing
Ammonium sulphate	Skin	Mouse	Not sensitizing

### Conclusion/Summary

**Skin** : Non-sensitiser.

**Respiratory** : Non-sensitiser.

### Mutagenicity

Product/ingredient name	Test	Experiment	Result
Ammonium dihydrogen orthophosphate	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
Ammonium sulphate	OECD 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative

**Conclusion/Summary** : No mutagenic effect.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
Ammonium dihydrogen orthophosphate	Negative	Negative	Negative	Rat - Male, Female	Oral: >1500 mg/kg	53 days; 7 days per week

**Conclusion/Summary** : Not considered to be toxic to the reproductive system.

### Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium dihydrogen orthophosphate	Negative - Oral	Rat - Female	1500 mg/kg	53 days

**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.

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

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards. May cause irritation due to mechanical action.

**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.

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

**Eye contact** : No specific data.

## SECTION 11: Toxicological information

**Inhalation** : No specific data.  
**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

Not available.

**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
Ammonium dihydrogen orthophosphate	EC50 >100 mg/l Freshwater	Algae	72 hours
	Acute LC50 1790 mg/l Fresh water	Daphnia	72 hours
	Acute LC50 85,9 mg/l Fresh water	Fish	96 hours
Ammonium sulphate	53 mg/l Fresh water	Fish Oncorhynchus mykiss	96 hours

**Conclusion/Summary** : Very low acute toxicity to fish. Practically non-toxic to aquatic organisms.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Ammonium dihydrogen orthophosphate	-	-	Readily
Ammonium sulphate	-	-	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

## SECTION 12: Ecological information

**PBT** : Not applicable.

**vPvB** : Not applicable.

**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 09 00	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes

#### 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. 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** : Not applicable.  
on the manufacture,  
placing on the market and  
use of certain dangerous  
substances, mixtures and  
articles

##### Other EU regulations

**Europe inventory** : All components are listed or exempted.

**Black List Chemicals** : Not listed  
(76/464/EEC)

**Priority List Chemicals** : Not listed  
(793/93/EEC)

**Industrial emissions** : Not listed  
(integrated pollution  
prevention and control) -  
Air

**Industrial emissions** : Not listed  
(integrated pollution  
prevention and control) -  
Water

##### Seveso III Directive

This product is controlled under the Seveso Directive.

##### National regulations

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

###### Denmark

**MAL-code** : 00-1

**List of undesirable** : Not listed  
**substances**

###### France

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

###### Germany

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

**Hazard class for water** : 1 Appendix No. 2

**Technical instruction on** : TA-Luft Number 5.2.1: 88.2-91.6%  
**air quality control**

###### Italy

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

###### Netherlands

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

###### Switzerland

**VOC content** : Exempt.

##### International regulations

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

## SECTION 15: Regulatory information

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.

<b>Australia</b>	: All components are listed or exempted.
<b>Canada</b>	: All components are listed or exempted.
<b>China</b>	: All components are listed or exempted.
<b>Japan</b>	: All components are listed or exempted.
<b>Malaysia</b>	: All components are listed or exempted.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: All components are listed or exempted.
<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: All components are listed or exempted.

**15.2 Chemical safety assessment** : Complete.

## 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



Compound Fertilizer, Granular, 12-27-0 +25 SO<sub>3</sub> +2 MgO

## SECTION 16: Other information

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.	Evaluation

### Europe

Full text of abbreviated H statements : Not applicable.

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

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### Notice to reader

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