



Europe

# SAFETY DATA SHEET

## MultiPhos 0-22-0

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

#### 1.1 Product identifier

**Product name** : MultiPhos 0-22-0  
**EC number** : 232-379-5

#### REACH Registration number

Registration number	Substance Identification
01-2119488967-11-XXXX	Single superphosphate

**Product code** : 5336-30798  
**Product description** : EC FERTILISER Single superphosphate 0-22-0  
**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	
Uses by workers in industrial settings:	
1: Sampling, loading, filling, transfer, dumping, and bagging of substance at dedicated / non-dedicated facilities.	
2: Storage	
3: Transfer of substance into small containers (dedicated filling line, including weighing).	
Uses by professional workers:	
4: Professional use – solid fertiliser for fields	
5: Professional use – outdoor mixing of fertiliser formulations	
6: Professional use – indoor mixing of fertiliser formulations	
Uses advised against	Reason
Consumer use	Risk cannot be ruled out.

#### 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

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BELGIUM +32 70 245 245  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

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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  
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  
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SPAIN +34 91 562 0420  
SWEDEN 112 (national callers); +46 (0)10 456 6700  
SWITZERLAND +41 44 251 51 51 (in Switzerland dial 145)

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

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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  
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** : Multi-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

**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.

**Annex XVII - Restrictions** : Not applicable.

on the manufacture, placing  
on the market and use of  
certain dangerous  
substances, mixtures and  
articles

#### 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. Inorganic salt.

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

## SECTION 2: Hazards identification

**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.

## SECTION 3: Composition/information on ingredients

**3.1 Substances** : Multi-constituent substance

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
Europe Single superphosphate	EC: 232-379-5 CAS: 8011-76-5 REACH Reg.#: 01-2119488967-11-XXXX	100	Not classified.	[*]

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

[\*] Substance

[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. Get medical attention if irritation occurs.

**Inhalation** : Remove person to fresh air. No known significant effects. Seek medical attention for any signs of wheezing and/or breathing difficulties. For additional advice call the medical emergency number on this SDS or your poison center or medical provider.

**Skin contact** : No known significant effects. Rinse the affected areas with water. Remove contaminated clothing, jewelry, and shoes. Wash/clean items before reuse. Seek medical attention for persistent skin pain or irritation. For additional advice call the medical emergency number on this SDS or your poison center or physician.

**Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. Depending on the situation, the rescuer should wear an appropriate mask, gloves, protective clothing and a respirator or self-contained breathing apparatus. 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

**Eye contact** : May cause irritation due to mechanical action. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

**Inhalation** : May cause irritation due to mechanical action.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

## SECTION 4: First aid measures

<b>Eye contact</b>	: Adverse symptoms may include the following: watering redness
<b>Inhalation</b>	: Adverse symptoms may include the following: respiratory tract irritation coughing
<b>Skin contact</b>	: No known effect after skin contact. Rinse with water for a few minutes.
<b>Ingestion</b>	: No known significant effects or critical hazards.

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

<b>Notes to physician</b>	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. 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.
<b>Specific treatments</b>	: No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: The substance will not burn. Undergoes thermal decomposition at elevated temperatures to release toxic and flammable gases. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Hazards from the substance or mixture</b>	: No specific fire or explosion hazard.
<b>Hazardous thermal decomposition products</b>	: Decomposition products may include the following materials: sulfur oxides phosphorus oxides

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	: 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.
<b>Special protective equipment for fire-fighters</b>	: 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.
<b>Additional information</b>	: 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

<b>For non-emergency personnel</b>	: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: 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".

## SECTION 6: Accidental release measures

### 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.

#### Large spill

- : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Avoid creating dusty conditions and prevent wind dispersal. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle to process, if possible.  
or  
Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

### 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). Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Advice on general occupational hygiene

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

### 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. Store locked up. 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

- : Not applicable. Non-hazardous substance.

#### Industrial sector specific solutions

- : Not applicable. Non-hazardous substance.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
<b>Europe</b> No exposure limit value known.	
<b>Austria</b> Calcium sulfate	<b>GKV MAK (Austria, 12/2011).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction PEAK: 10 mg/m <sup>3</sup> , 2 times per shift, 60 minutes. Form: Respirable fraction
<b>Belgium</b> Calcium sulfate	<b>Lijst Grenswaarden / Valeurs Limites (Belgium, 4/2014).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
<b>Bulgaria</b> Single superphosphate	<b>България Министерство на труда и социалната политика и Министерството на здравеопазването (Bulgaria, 1/2012).</b> Limit value 8 hours: 5 mg/m <sup>3</sup> 8 hours.
Calcium sulfate	<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>Czech Republic</b> Calcium sulfate	<b>MZCR PEL/NPK-P (Czech Republic, 1/2013).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Respirable dust
<b>France</b> Calcium sulfate	<b>Ministère du travail (France, 7/2012). Notes: List of indicative occupational exposure limit values</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
<b>Germany</b> Calcium sulfate	<b>TRGS900 AGW (Germany, 4/2014).</b> TWA: 6 mg/m <sup>3</sup> 8 hours. Form: alveolar fraction
<b>Greece</b> Calcium sulfate	<b>PD 90/1999 (Greece, 8/2007).</b> TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: Inhalable fraction TWA: 5 mg/m <sup>3</sup> 8 hour(s). Form: Respirable fraction
<b>Hungary</b> Calcium sulfate	<b>EüM-SzCsM (Hungary, 12/2007).</b> TWA: 6 mg/m <sup>3</sup> 8 hour(s). Form: Respirable dust
<b>Ireland</b> Calcium sulfate	<b>NAOSH (Ireland, 5/2010).</b> OELV-8hr: 10 mg/m <sup>3</sup> 8 hour(s).
<b>Italy</b> Calcium sulfate	<b>ACGIH TLV (United States, 2/2010).</b> TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: Inhalable fraction. See Appendix C, paragraph A. Inhalable Particulate Mass TLVs (IPM-TLVs) for those materials that are hazardous when deposited anywhere in the respiratory tract.
<b>Latvia</b> Calcium bis(dihydrogenorthophosphate)	<b>LV Nat. Standardisation and Meterological Centre (Latvia, 5/2007).</b> TWA: 10 mg/m <sup>3</sup> 8 hour(s).
Calcium hydrogenorthophosphate	<b>LV Nat. Standardisation and Meterological Centre (Latvia, 5/2007).</b> TWA: 10 mg/m <sup>3</sup> 8 hour(s).
<b>Poland</b> Calcium sulfate	<b>Rozporządzenie Ministra Pracy i Polityki Społecznej (Poland, 7/2009).</b> TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: total dust
<b>Portugal</b>	

## SECTION 8: Exposure controls/personal protection

Calcium sulfate	<b>Instituto Português da Qualidade (Portugal, 3/2007).</b> TWA: 10 mg/m <sup>3</sup> 8 hour(s). Form: inhalable fraction
<b>Romania</b>	
Calcium sulfate	<b>Ministerul Muncii, Solidaritatei Sociale si Familiei, si Ministerul Sanatatii Publice (Romania, 1/2008).</b> VLA: 10 mg/m <sup>3</sup> 8 hour(s). Form: dust, inhalable fraction
<b>Slovakia</b>	
Calcium sulfate	<b>Nariadenie Vlády Slovenskej republiky (Slovakia, 6/2007).</b> TWA: 4 mg/m <sup>3</sup> 8 hour(s). Form: inhalable aerosol TWA: 1.5 mg/m <sup>3</sup> 8 hour(s). Form: respirable aerosols
<b>Slovenia</b>	
Calcium sulfate	<b>Uradni list Republike Slovenije (Slovenia, 6/2007).</b> TWA: 6 mg/m <sup>3</sup> 8 hour(s). Form: respirable fraction KTV: 6 mg/m <sup>3</sup> , 4 times per shift, 15 minute(s). Form: respirable fraction
<b>Spain</b>	
Calcium sulfate	<b>INSHT (Spain, 5/2010).</b> TWA: 10 mg/m <sup>3</sup> 8 hour(s).
<b>Switzerland</b>	
Orthophosphoric acid	<b>SUVA (Switzerland, 1/2009).</b> TWA: 1 mg/m <sup>3</sup> 8 hour(s). STEL: 2 mg/m <sup>3</sup> 15 minute(s).
<b>Turkey</b>	
Calcium sulfate	<b>NIOSH REL (United States, 6/2009).</b> TWA: 5 mg/m <sup>3</sup> 10 hour(s). Form: Respirable fraction TWA: 10 mg/m <sup>3</sup> 10 hour(s). Form: Total

**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.

### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Single superphosphate	DNEL	Long term Dermal	17.4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.1 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	10.4 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	0.9 mg/m <sup>3</sup>	Consumers	Systemic
	DNEL	Long term Oral	2.1 mg/kg bw/day	Consumers	Systemic

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

### PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
Single superphosphate	Fresh water Marine	1.7 mg/l 0.17 mg/l	Assessment Factors Assessment Factors

### 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

## SECTION 8: Exposure controls/personal protection

<b>Hygiene measures</b>	: 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. Ensure that eyewash stations and safety showers are close to the workstation location.
<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 operating conditions cause high dust concentrations to be produced, use dust goggles.
<b>Skin protection</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.
<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.
<b>Respiratory protection</b>	: Use a properly fitted, air-purifying or air-fed 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. [Amorphous solid powder or lumps.]
<b>Colour</b>	: Grey.
<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>	: Not available.
<b>Flash point</b>	: [Product does not sustain combustion.]
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Non-combustible.
<b>Upper/lower flammability or explosive limits</b>	: Not available.
<b>Vapour pressure</b>	: Not available.
<b>Vapour density</b>	: Not available.
<b>Relative density</b>	: 2.41
<b>Solubility(ies)</b>	: Very slightly soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: 100°C
<b>Viscosity</b>	: Not available.
<b>Explosive properties</b>	: No specific fire or explosion hazard.
<b>Oxidising properties</b>	: None.

## SECTION 9: Physical and chemical properties

### 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
Single superphosphate  Calcium bis (dihydrogenorthophosphate)	LC50 Inhalation Vapour	Rat - Male, Female	>5 mg/l	4 hours
	LD50 Dermal	Rat - Male, Female	>5000 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Female	3986 mg/kg	-
	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	3986 mg/kg	-

**Conclusion/Summary** : Not considered to be toxic to humans.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Single superphosphate	Skin Eyes	Rabbit Rabbit	- 0	-	- 72 hours

#### **Conclusion/Summary**

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

**Eyes** : No known significant effects or critical hazards.

#### Sensitisation

Product/ingredient name	Route of exposure	Species	Result
Single superphosphate	Skin	Mouse	Not sensitizing

#### **Conclusion/Summary**

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

#### Mutagenicity

## SECTION 11: Toxicological information

Product/ingredient name	Test	Experiment	Result
Single superphosphate	OECD 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: <i>In vitro</i> Subject: Mammalian-Animal	Negative
	OECD 473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: <i>In vitro</i> Subject: Mammalian-Human Cell: Somatic	Negative
	OECD 471 Bacterial Reverse Mutation Test	Experiment: <i>In vivo</i> Subject: Bacteria	Negative

Conclusion/Summary : No mutagenic effect.

### Carcinogenicity

Conclusion/Summary : Not available.

### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
Single superphosphate	Negative	Negative	Negative	Rat - Male, Female	Oral: 750 mg/kg	7 days per week

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

### Teratogenicity

Conclusion/Summary : Not available.

### 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** : May cause irritation due to mechanical action. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

**Inhalation** : May cause irritation due to mechanical action.

**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:  
watering  
redness

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

**Skin contact** : No known effect after skin contact. Rinse with water for a few minutes.

**Ingestion** : No known significant effects or critical hazards.

### 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.

## SECTION 11: Toxicological information

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Single superphosphate	Sub-chronic NOAEL Oral	Rat - Male, Female	250 mg/kg	-

**Conclusion/Summary** : Not available.

**General** : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**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
Single superphosphate	Acute EC50 >87.6 mg/l Fresh water Acute LC50 1790 mg/l Fresh water Acute LC50 >85.9 mg/l Fresh water Acute LC50 650 ug/L Fresh water	Algae Daphnia Fish Fish - Barbus stigma - 10 to 13 cm - 20 to 35 g	72 hours 72 hours 96 hours 96 hours
Calcium sulfate	Acute LC50 >1910000 ug/L Fresh water Acute LC50 >1970000 ug/L Fresh water	Daphnia - Ceriodaphnia dubia - <24 hours Fish - Pimephales promelas - 1 to 7 days	48 hours 96 hours

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

### 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. Inorganic salt.

**vPvB** : Not applicable. Inorganic salt.

**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. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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**

: The classification of the product may meet the criteria for a hazardous waste.

#### 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. 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 split 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** : Not available.

**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.

##### National regulations

##### Limitation of the use of organic solvents

: Permitted.

##### 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

##### Hazard class for water

: 3 Appendix No. 3

##### Technical instruction on air quality control

: TA-Luft Number 5.2.1: 54.3-100%

##### AOX

: The product does not contain organically bound halogens which could lead to an AOX value in waste water.

##### Italy

##### D.Lgs. 152/06

: Not classified.

##### Netherlands

##### Water Discharge Policy (ABM)

: {5} Very toxic to aquatic organisms. Abatement effort: B

##### Biocidal products regulation

: Not applicable.

##### Ordinance on Thermoset Plastics

: Not applicable.

##### Thermoset plastic waste

: Not available.

##### Waste group

: Not available.

##### 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)

## SECTION 15: Regulatory information

Not listed.

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

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

## SECTION 16: Other information

**Revision comments** : Sections revised:  
Section 2. Hazards identification  
Section 3. Composition/information on ingredients  
Section 4. First aid measures  
Section 7. Handling and storage  
Section 8. Exposure controls/personal protection  
Section 11. Toxicological information  
Section 12. Ecological information  
Section 15. Other Regulatory Information and Pictograms

► 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

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

Classification	Justification
Not classified.	Supplier's information

### Europe

**Full text of abbreviated H statements** : Not applicable.  
**Full text of classifications [CLP/GHS]** : Not applicable.  
**Date of printing** : 9/6/2016  
**Date of issue/ Date of revision** : 8/22/2016  
**Date of previous issue** : 5/16/2016  
**Version** : 2.1

### Notice to reader

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## **SECTION 16: Other information**

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**Product definition** : Multi-constituent substance

## Identification of the substance or mixture

**Code** : 5336-30798

**Product name** : Single superphosphate 0-22-0

## Section 1 - Title

**Short title of the exposure scenario** : Agrium SSP ES for Workers

**List of use descriptors** : **Identified use name:** Industrial use for the formulation of preparations, intermediate use, and end use in industrial settings.  
**Process Category:** PROC03, PROC05, PROC08a, PROC08b, PROC09, PROC26  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU01, SU03, SU10  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC02, ERC10b  
**Market sector by type of chemical product:** PC12  
**Article category related to subsequent service life:** Not applicable.

**Environmental contributing scenarios** : Not applicable.

**Health Contributing scenarios** : **Bulk transfers** - PROC03, PROC05, PROC08a, PROC08b, PROC09, PROC26  
**Clean-down and maintenance of equipment** - PROC03, PROC05, PROC08a, PROC08b, PROC09, PROC26  
**Mixing operations (open systems)** - PROC05, PROC08b  
**Product packaging** - PROC09  
**Storage** - PROC26

**Number of the ES** : 1

**Processes and activities covered by the exposure scenario** : Applicable to all identified Process Categories.  
An environmental assessment has not been done as the substance does not meet the criteria for being classified as dangerous for the environment.

## Section 2 - Exposure controls

### Contributing scenario controlling environmental exposure for 1: Not applicable.

Not applicable. Not classified as dangerous to the environment.

### Contributing scenario controlling worker exposure for 1: Bulk transfers

**Product characteristics** : Solid, low dustiness.

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100%

**Physical state** : Solid beads.

**Dust** : Solid, low dustiness.

**Amounts used** : Variable, from day to day.

**Frequency and duration of use** : Use duration (h/d): >4

**Human factors not influenced by risk management** : Not applicable.

**Other given operational conditions affecting workers exposure** : Indoor or outdoor use Amounts used

**Area of use:** : Indoor and outdoor use.

<b>Technical conditions and measures at process level (source) to prevent release</b>	: Not applicable.
<b>Process control/change measures</b>	: Not applicable.
<b>Technical conditions and measures to control dispersion from source towards the worker</b>	: Use appropriate containment to avoid environmental contamination. Provide enhanced general ventilation by mechanical means.
<b>Engineering controls</b>	: Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.
<b>Ventilation control measures</b>	: Provide adequate ventilation and, if possible, use or install internal exhaust systems.
<b>Organisational measures to prevent/limit releases, dispersion and exposure</b>	: Not applicable.
<b>Conditions and measures related to personal protection and hygiene</b>	
<b>Advice on general occupational hygiene</b>	: A washing facility or water for eye and skin cleaning purposes should be present. Brush off contaminated clothing. Ensure good industrial hygiene. Provide eye shower and mark its location conspicuously.
<b>Personal protection</b>	: If operating conditions cause high dust concentrations to be produced, use dust goggles.
<b>Respiratory protection</b>	: If ventilation is inadequate, use respirator that will protect against dust/mist.

#### Contributing scenario controlling worker exposure for 2: Clean-down and maintenance of equipment

<b>Product characteristics</b>	: Solid, low dustiness.
<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100%
<b>Physical state</b>	: Solid beads.
<b>Dust</b>	: Solid, low dustiness.
<b>Amounts used</b>	: Not applicable.
<b>Frequency and duration of use</b>	: Use duration (h/d): >4
<b>Human factors not influenced by risk management</b>	: Not applicable.
<b>Other given operational conditions affecting workers exposure</b>	: Indoor or outdoor use
<b>Area of use:</b>	: Indoor and outdoor use.
<b>Technical conditions and measures at process level (source) to prevent release</b>	: Restrict access while emptying or maintaining the unit. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Since the emptied containers retain product residue, follow product insert warnings even after container is emptied.
<b>Process control/change measures</b>	: These controls may include segregation of areas, access only to authorised persons, permit to work systems, confined space working procedures, and hazard awareness training.
<b>Technical conditions and measures to control dispersion from source towards the worker</b>	: Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.
<b>Engineering controls</b>	: Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.
<b>Ventilation control measures</b>	: Provide adequate ventilation and, if possible, use or install internal exhaust systems.

<b>Organisational measures to prevent/limit releases, dispersion and exposure</b>	: Not applicable.
<b>Conditions and measures related to personal protection and hygiene</b>	
<b>Advice on general occupational hygiene</b>	: A washing facility or water for eye and skin cleaning purposes should be present. Brush off contaminated clothing. Pay attention to good general hygiene and housekeeping. Provide eye shower and mark its location conspicuously. When using do not eat or drink.
<b>Personal protection</b>	: If operating conditions cause high dust concentrations to be produced, use dust goggles.
<b>Respiratory protection</b>	: If ventilation is inadequate, use respirator that will protect against dust/mist.
<b>Contributing scenario controlling worker exposure for 3: Mixing operations (open systems)</b>	
<b>Product characteristics</b>	: Solid, low dustiness.
<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100%
<b>Physical state</b>	: Solid beads.
<b>Dust</b>	: Solid, low dustiness.
<b>Amounts used</b>	: Not applicable.
<b>Frequency and duration of use</b>	: Use duration (h/d): >4
<b>Human factors not influenced by risk management</b>	: Not applicable.
<b>Other given operational conditions affecting workers exposure</b>	: Indoor use
<b>Area of use:</b>	: Indoor
<b>Technical conditions and measures at process level (source) to prevent release</b>	: Not applicable.
<b>Process control/change measures</b>	: Not applicable.
<b>Technical conditions and measures to control dispersion from source towards the worker</b>	: Use appropriate containment to avoid environmental contamination. Provide enhanced general ventilation by mechanical means.
<b>Engineering controls</b>	: Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.
<b>Ventilation control measures</b>	: Provide adequate ventilation and, if possible, use or install internal exhaust systems.
<b>Organisational measures to prevent/limit releases, dispersion and exposure</b>	: Not applicable.
<b>Conditions and measures related to personal protection and hygiene</b>	
<b>Personal protection</b>	: Goggles, face shield or other full-face protection should be worn if there is a risk of direct exposure to dust. Wear suitable coveralls to prevent exposure to the skin. Wear chemical-resistant gloves (tested to EN374) in combination with 'basic' employee training. Adequate ventilation should be provided if there is risk of aerosol formation. If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist. In case of inadequate ventilation wear respiratory protection: Approved/certified respirator with appropriate particulate dust filters.
<b>Respiratory protection</b>	: Filtering half-face mask (DIN EN 149)

## Contributing scenario controlling worker exposure for 4: Product packaging

<b>Product characteristics</b>	: Solid, low dustiness.
<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100%
<b>Physical state</b>	: Solid beads.
<b>Dust</b>	: Solid, low dustiness.
<b>Amounts used</b>	: Not applicable.
<b>Frequency and duration of use</b>	: Use duration (h/d): >4
<b>Human factors not influenced by risk management</b>	: Not applicable.
<b>Other given operational conditions affecting workers exposure</b>	: Indoor use
<b>Area of use:</b>	: Indoor
<b>Technical conditions and measures at process level (source) to prevent release</b>	: Not applicable.
<b>Process control/change measures</b>	: Not applicable.
<b>Technical conditions and measures to control dispersion from source towards the worker</b>	: Ensure the area is organised, well lit and ventilated with enough space to deal with spills easily.
<b>Engineering controls</b>	: Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.
<b>Ventilation control measures</b>	: Ensure sufficient ventilation when re-packing damaged packages. Only use product in a well-ventilated area.
<b>Organisational measures to prevent/limit releases, dispersion and exposure</b>	: Not applicable.
<b>Conditions and measures related to personal protection and hygiene</b>	
<b>Advice on general occupational hygiene</b>	: A washing facility or water for eye and skin cleaning purposes should be present. Brush off contaminated clothing. When using do not eat or drink.
<b>Personal protection</b>	: If operating conditions cause high dust concentrations to be produced, use dust goggles.
<b>Respiratory protection</b>	: Filtering half-face mask (DIN EN 149)

## Contributing scenario controlling worker exposure for 5: Storage

<b>Product characteristics</b>	: Solid, low dustiness.
<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100%
<b>Physical state</b>	: Solid beads.
<b>Dust</b>	: Solid, low dustiness.
<b>Amounts used</b>	: Not applicable.
<b>Frequency and duration of use</b>	: Use duration (h/d): >4
<b>Human factors not influenced by risk management</b>	: Not applicable.
<b>Other given operational conditions affecting workers exposure</b>	: Indoor use

<b>Area of use:</b>	: Indoor
<b>Technical conditions and measures at process level (source) to prevent release</b>	: Not applicable.
<b>Process control/change measures</b>	: Not applicable.
<b>Technical conditions and measures to control dispersion from source towards the worker</b>	: Use appropriate containment to avoid environmental contamination. Provide enhanced general ventilation by mechanical means.
<b>Engineering controls</b>	: Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.
<b>Ventilation control measures</b>	: Provide adequate ventilation and, if possible, use or install internal exhaust systems.
<b>Organisational measures to prevent/limit releases, dispersion and exposure</b>	: Not applicable.
<b>Conditions and measures related to personal protection and hygiene</b>	
<b>Personal protection</b>	: If operating conditions cause high dust concentrations to be produced, use dust goggles.
<b>Respiratory protection</b>	: Filtering half-face mask (DIN EN 149)

### Section 3 - Exposure estimation and reference to its source

<b>Website:</b>	: Qualitative approach used to conclude safe use.
<b>Exposure estimation and reference to its source - Environment: 6: Not applicable.</b>	
<b>Exposure assessment (environment):</b>	: Qualitative approach used to conclude safe use.
<b>Exposure estimation</b>	: Not available.
<b>Exposure estimation and reference to its source - Workers:1: Bulk transfers</b>	
<b>Exposure assessment (human):</b>	: Qualitative approach used to conclude safe use.
<b>Exposure estimation</b>	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
<b>Exposure estimation and reference to its source - Workers:2: Clean-down and maintenance of equipment</b>	
<b>Exposure assessment (human):</b>	: Qualitative approach used to conclude safe use.
<b>Exposure estimation</b>	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
<b>Exposure estimation and reference to its source - Workers:3: Mixing operations (open systems)</b>	
<b>Exposure assessment (human):</b>	: Qualitative approach used to conclude safe use.
<b>Exposure estimation</b>	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
<b>Exposure estimation and reference to its source - Workers:4: Product packaging</b>	
<b>Exposure assessment (human):</b>	: Qualitative approach used to conclude safe use.
<b>Exposure estimation</b>	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.
<b>Exposure estimation and reference to its source - Workers:5: Storage</b>	
<b>Exposure assessment (human):</b>	: Qualitative approach used to conclude safe use.
<b>Exposure estimation</b>	: Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

### Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

<b>Environment</b>	: No additional risk management measures required.
<b>Health</b>	: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

**Additional good practice advice beyond the REACH CSA**

<b>Environment</b>	: Use containment as appropriate. Good hygiene practices and housekeeping measures
<b>Health</b>	: Not available.

**Product definition** : Multi-constituent substance

### Identification of the substance or mixture

**Code** : 5336-30798

**Product name** : Single superphosphate 0-22-0

### Section 1 - Title

**Short title of the exposure scenario** : Agrium SSP ES for Professionals

**List of use descriptors** : **Identified use name:** Professional use in formulation of preparations and end-use.  
**Process Category:** PROC03, PROC08a, PROC08b, PROC09, PROC26  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU01, SU03, SU10, SU22  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC02, ERC08b, ERC08e  
**Market sector by type of chemical product:** PC12

**Environmental contributing scenarios** : An environmental assessment has not been done as the substance does not meet the criteria for being classified as dangerous for the environment.

**Health Contributing scenarios** : All process categories are addressed by this contributing scenario as all Operational Conditions and Risk Management Measures are identical.

**Number of the ES** : 2

**Processes and activities covered by the exposure scenario** : Applicable to all identified Process Categories.

### Section 2 - Exposure controls

**Contributing scenario controlling environmental exposure for 1: An environmental assessment has not been done as the substance does not meet the criteria for being classified as dangerous for the environment.**

Not applicable.

**Contributing scenario controlling worker exposure for 1: All process categories are addressed by this contributing scenario as all Operational Conditions and Risk Management Measures are identical.**

**Product characteristics** : Solid, low dustiness.

**Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100%

**Physical state** : Solid beads.

**Dust** : Solid, low dustiness.

**Amounts used** : Variable.

**Frequency and duration of use** : >4 Hours per shift

**Human factors not influenced by risk management** : Not applicable.

**Other given operational conditions affecting workers exposure** : Indoor or outdoor use

**Area of use:** : Indoor and outdoor use.

**Technical conditions and measures at process level (source) to prevent release** : Not applicable.

**Technical conditions and measures to control dispersion from source towards the worker** : Use containment as appropriate. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.

<b>Engineering controls</b>	: Provide adequate ventilation.
<b>Ventilation control measures</b>	: Provide adequate ventilation and, if possible, use or install internal exhaust systems.
<b>Product substance-related measures</b>	: Avoid contact with eyes, skin and clothing. Ensure the area is organised, well-lit and ventilated, with enough space to deal with spills easily. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.
<b>Organisational measures to prevent/limit releases, dispersion and exposure</b>	: Not applicable.
<b>Conditions and measures related to personal protection and hygiene</b>	
<b>Advice on general occupational hygiene</b>	: Ensure good industrial hygiene. Avoid contact with eyes, skin and clothing. Avoid creating dusty conditions and prevent wind dispersal. Work in well-ventilated zones or use proper respiratory protection.
<b>Personal protection</b>	: Use suitable eye protection. If operating conditions cause high dust concentrations to be produced, use dust goggles. Use appropriate respiratory protection if there is a risk of exceeding any exposure limits. If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist. In case of inadequate ventilation wear respiratory protection: Filtering device (DIN EN 147) Wear dust-resistant protective clothing.

### Section 3 - Exposure estimation and reference to its source

<b>Website:</b>	: Qualitative approach used to conclude safe use.
<b>Exposure estimation and reference to its source - Environment: 2: An environmental assessment has not been done as the substance does not meet the criteria for being classified as dangerous for the environment.</b>	
<b>Exposure assessment (environment):</b>	: Not applicable.
<b>Exposure estimation</b>	: Not available.
<b>Exposure estimation and reference to its source - Workers:1: All process categories are addressed by this contributing scenario as all Operational Conditions and Risk Management Measures are identical.</b>	
<b>Exposure assessment (human):</b>	: Qualitative approach used to conclude safe use.
<b>Exposure estimation</b>	: Not available.

### Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

<b>Environment</b>	: Not applicable.
<b>Health</b>	: No additional risk management measures required.

### Additional good practice advice beyond the REACH CSA

<b>Environment</b>	: Not available.
<b>Health</b>	: Use containment as appropriate. Ensure control measures are regularly inspected and maintained. Pay attention to good general hygiene and housekeeping.