

# SAFETY DATA SHEET

## Compound Fertiliser, Granular 15-15-15

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

#### 1.1 Product identifier

**Product name** : Compound Fertiliser, Granular 15-15-15  
**EC number** :  
**REACH Registration number**

Registration number	Substance
01-2119490981-27-XXXX	Ammonium nitrate
01-2119489385-24-XXXX	Ammonium chloride
01-2119488224-35-XXXX	Potassium nitrate
01-2119488166-29-XXXX	Monoammonium phosphate
01-2119490974-22-XXXX	Diammonium hydrogenorthophosphate
Exempt from REACH registration according to Article 2 (7) (a) and (b), Annex V: Category:7, Naturally occurring substance, not chemically modified.	Potassium chloride

**CAS number** : Not applicable.  
**Product code** : 3242-27972  
**Product description** : EC FERTILISER NPK Fertiliser, Granulated 15-15-15  
**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
None.	Evaluation

#### 1.3 Details of the supplier of the safety data sheet

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

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

#### 1.4 Emergency telephone number

##### National advisory body/Poison Centre

**Telephone number** : Nutrien Safety Data Sheets are available in many languages at <https://agproducts.nutrien.com/products/>  
Physicians, Poison Centres, or the Public may contact Nutrien's Global Emergency Response Number 24/7/365 for service in many languages at +1 303 389 1654

AUSTRIA +43 1 406 43 43  
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BELARUS +375 17 287 00 92

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

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CZECH REPUBLIC +420 22 49 192 93  
DENMARK +45 82 12 12 12  
ESTONIA 16662; +372 62 69 379  
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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  
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Homburg (Saar) +49 6841 192 40  
Mainz +49 6131 192 40  
Munich +49 89 192 40  
GREECE +30 21 07 79 37 77  
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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  
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LITHUANIA +370 5 236 20 52; +370 687 533 78  
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NORWAY +47 22 59 13 00  
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Krakow +48 12 411 99 99  
Lodz +48 42 63 14 724  
Sosnowiec +48 32 266 11 45  
Warszawa +48 22 619 66 54  
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## 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 : Nutrien 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]

Eye Irrit. 2, H319

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

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

### 2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Causes serious eye irritation.

### 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 : Wear eye or face protection. Wash hands thoroughly after handling.

Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Not applicable.

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

## SECTION 2: Hazards identification

### 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.  
Not applicable.

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

**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	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Ammonium nitrate	REACH Reg.#: 01-2119490981-27-XXXX EC No.: 229-347-8 CAS: 6484-52-2	19 - 33	Ox. Sol. 3, H272 Eye Irrit. 2, H319	[A]
Diammonium hydrogenorthophosphate	REACH Reg.# 01-2119490974-22-XXXX EC No. : 231-987-8 CAS: 7783-28-0	0 - 33	Not classified.	[A]
Ammonium dihydrogen orthophosphate	REACH Reg.# 01-2119488166-29-XXXX EC No.: 231-764-5 CAS: 7722-76-1	0 - 29	Not classified.	[A]
Potassium chloride	EC No.: 231-211-8 CAS: 7447-40-7	8 - 25	Not classified.	[A]
Potassium nitrate	REACH Reg.# 01-2119488224-35-XXXX EC No.:231-818-8 CAS: 7757-79-1	0 - 20	Ox. Sol. 3, H272	[A]
Ammonium chloride	REACH Reg.# 01-2119489385-24-XXXX EC No.: 235-186-4 CAS: 12125-02-9	2 - 9	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410  <b>See Section 16 for the full text of the H statements declared above.</b>	[B]

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

### Type

[A] Constituent

[B] Impurity

[C] Stabilising additive

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Begin eye irrigation immediately. Eye exposures to nitrates may require medical evaluation following decontamination if pain or irritation persists. Immediately rinse eyes with large quantities of water or saline for a minimum of 15 minutes. If possible, remove contact lenses being careful not to cause additional eye damage. If the initial water supply is insufficient, keep the affected area wet with a moist cloth and transfer the person to the nearest place where rinsing can be continued for the recommended length of time. For additional advice call the medical emergency number on this SDS or your poison center or physician.
- 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** : Nitrate based product. May be irritating to mouth, throat and stomach. May cause methemoglobinemia (a condition that interferes with the oxygen-carrying capacity of the blood) if ingested in large quantities or over a prolonged period of time. Oral exposures: if the affected person requires CPR, avoid mouth to mouth contact. Do not induce vomiting. If vomiting occurs, attempt to keep head lower than chest so that vomit does not enter the lungs. Wash (decontaminate) face and mouth with water to remove visible material. If the exposed person is conscious and can swallow, give 1-2 sips of water. Do not give anything else by mouth. Loosen tight clothing such as collar, tie, belt or waistband to prevent any breathing restrictions. Call for emergency transportation to a hospital if the exposed person feels sick or has breathing difficulties, or a large amount is suspected ingested. For additional advice, call the medical emergency number on this SDS or your poison center or physician.
- Protection of first-aiders** : 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

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : Over-exposure by ingestion is unlikely under normal working conditions. Adverse symptoms may include the following:  
nausea or vomiting  
stomach pains  
diarrhea  
Methemoglobinemia (see Acute Health Effects)

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

- Notes to physician** : In case of inhalation of decomposition products (carbon monoxide, carbon dioxide, nitrogen oxides) in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for up to 72 hours. In cases of suspected methemoglobinemia, monitor methemoglobin blood levels. Treatment is supportive; methylene blue may be indicated based on patient severity. 24 Hr Medical Emergency telephone number for professional support: 00-1-303-389-1654.
- Specific treatments** : Call the medical emergency number on this SDS or your poison center or doctor immediately if large quantities have been ingested. In cases of suspected methemoglobinemia, methylene blue may be indicated based on patient severity.

## 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** : Do not attempt to smother the fire.

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

- Hazards from the substance or mixture** : Contains an oxidizing substance. May intensify fire.
- Hazardous combustion products** : Decomposition products may include the following materials:  
sulphur oxides (SO<sub>2</sub>, SO<sub>3</sub>, etc.)  
Ammonia  
Nitrogen oxides  
carbon monoxide

### 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- 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** : Oxidising material. Fight fire from protected location or maximum possible distance. 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. Avoid creating dusty conditions and prevent wind dispersal.
- 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 adverse impacts (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 remark.

### 6.4 Reference to other sections

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



## SECTION 7: Handling and storage

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

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.
- 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. May form steep piles that can collapse without warning when stored in bulk. Avoid forming steep slopes when removing product. Ensure that bulk bags or smaller packaged products stored in tiers are stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, rolling, or collapse. Use caution when opening truck or railcar doors as product may have shifted during transport.

Must be stored in a dry location. Absorbs moisture on long-term storage under high humidity conditions. Store away from incompatible materials (see Section 10). When product is stored in sealable containers, keep container tightly closed and sealed until ready for use. Sealable containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

### 7.3 Specific end use(s)

- Recommendations** : See Annex to the Safety data sheet for additional information in the Exposure Scenario(s).
- Industrial sector specific solutions** : See Annex to the Safety data sheet for additional information in the Exposure Scenario(s).

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

- 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
Ammonium nitrate	DNEL	Long term Dermal	5,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	36 mg/m <sup>3</sup>	Workers	Systemic
Ammonium dihydrogen orthophosphate	DNEL	Long term inhalation	6,1 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 nitrate	Fresh water	0,45 mg/l	Assessment Factors
Ammonium dihydrogen orthophosphate	Fresh water	1,7 mg/l	Assessment Factors

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

### 8.2 Exposure controls

**Appropriate engineering controls** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. 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** : Not recommended

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

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : 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.

**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. Dispose of waste according to applicable legislation.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Solid. [Granular solid. Solid beads.]
- Colour** : Grey to Light brown.
- Odour** : Odourless.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : 170°C
- Initial boiling point and boiling range** : Decomposition temperature: >210°C
- Flash point** : Not applicable. Non-flammable.
- Evaporation rate** : Not applicable. Solid beads.
- Flammability (solid, gas)** : No flammable ingredients present.
- Upper/lower flammability or explosive limits** : Not applicable. Inorganic salt.
- Vapour pressure** : Not available.
- Vapour density** : Not available.



## SECTION 9: Physical and chemical properties

<b>Relative density</b>	: 1.725
<b>Solubility(ies)</b>	: Easily soluble in the following materials: hot water. Soluble in the following materials: cold water.
<b>Partition coefficient: n-octanol/ water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not applicable.
<b>Decomposition temperature</b>	: >210°C
<b>Viscosity</b>	: Not applicable. Solid.
<b>Explosive properties</b>	:
<b>Oxidising properties</b>	: Contains an oxidizing substance. May intensify fire.

### 9.2 Other information

<b>Burning time</b>	: Not applicable. Non-combustible. Decomposes.
<b>Burning rate</b>	: Not applicable. Non-combustible. Decomposes.
<b>Solubility in water</b>	: Soluble in water in any proportion.

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: Stable under recommended storage and handling conditions (see Section 7).
<b>10.2 Chemical stability</b>	: The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following: contact with combustible materials Reactions may include the following: risk of causing or intensifying fire Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: Decomposes on heating. Avoid confinement.
<b>10.5 Incompatible materials</b>	: Moisture-sensitive material. Hygroscopic. Keep container tightly closed. Avoid contamination by any source including metals, dust and organic materials.
<b>10.6 Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. In a fire, decomposition may produce toxic gases/fumes.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium nitrate	LD50 Dermal	Rat - Male, Female	>5000 mg/kg	-
-	LD50 Oral	Rat	2217 mg/kg	-
-	LD50 Oral	Rat - Male, Female	2950 mg/kg	-
Diammonium hydrogenorthophosphate	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5 mg/l	4 hours
-	LD50 Dermal	Rat - Male, Female	>5000 mg/kg	-
-	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-

## SECTION 11: Toxicological information

Ammonium dihydrogen orthophosphate	LC50 Inhalation Dusts and mists LD50 Oral	Rat - Male, Female Rat - Male, Female	>5 mg/l >2000 mg/kg	4 hours -
Potassium nitrate	LD50 Oral	Rat	3540 mg/kg	-
Ammonium chloride	LD50 Oral	Rat	3750 mg/kg	-
	LD50 Oral	Rat	1650 mg/kg	-

**Conclusion/Summary** : Very low toxicity to humans or animals. Effects are not sufficient for classification as hazardous.

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ammonium nitrate	Skin Eyes - Oedema of the conjunctivae	Rabbit Rabbit	0 3	- -	72 hours 3 days
Diammonium hydrogenorthophosphate	Skin	Rabbit	0	72 hours	-
Potassium chloride	Eyes Eyes	Rabbit Rabbit	0 0	72 hours 24 hours 500 milligrams	- -
Ammonium dihydrogen orthophosphate	Skin	Rabbit	0	-	-
Ammonium chloride	Eyes Eyes - Severe irritant	Rabbit Rabbit	0 -	- 24 hours 500 milligrams	- -

### **Conclusion/Summary**

**Skin** : Non-irritating to the skin.  
**Eyes** : Irritating to the eyes.  
**Respiratory** : May cause slight transient irritation.

### Sensitisation

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

### **Conclusion/Summary**

**Skin** : Non-sensitiser.  
**Respiratory** : Non-sensitiser.

### Mutagenicity

Product/ingredient name	Test	Experiment	Result
Ammonium nitrate	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative
Diammonium hydrogenorthophosphate	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
Potassium chloride	Ames test	Subject: Bacteria	Negative
Ammonium dihydrogen orthophosphate	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
Potassium nitrate	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 479 Genetic Toxicology: In vitro Sister Chromatid	Experiment: In vitro Subject: Mammalian-Animal	Negative

## SECTION 11: Toxicological information

	Exchange Assay in Mammalian Cells		
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**Conclusion/Summary** : No mutagenic effect.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

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

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

### Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium nitrate	Negative - Oral	Rat - Female	1500 mg/kg	53 days
Potassium chloride	Negative - Oral	Rat - Female	310 mg/m <sup>3</sup>	-
Ammonium dihydrogen orthophosphate	Negative - Oral	Rat - Male, Female	>1500 mg/kg	-

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

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on likely routes of exposure** : Skin contact  
Inhalation

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

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

**Ingestion** : May be irritating to the digestive tract. May cause nausea, vomiting, diarrhea, and abdominal pain. May cause methemoglobinemia (a condition that interferes with the oxygen-carrying capacity of the blood) if ingested in large quantities or over a prolonged period of time. Persons with methemoglobinemia may have blue tinge color to lips, nails, and skin. Also they may have shortness of breath or trouble breathing. Persons more susceptible to methemoglobinemia include: very young (less than 3 months), the elderly, those with chronic obstructive pulmonary disease (COPD), anemia, coronary artery disease, recent surgery or infection, and those with a genetic deficiency of G-6-PD.

## SECTION 11: Toxicological information

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

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : Over-exposure by ingestion is unlikely under normal working conditions. Adverse symptoms may include the following:  
nausea or vomiting  
stomach pains  
diarrhea  
Methemoglobinemia (see Acute Health Effects)

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

- Potential immediate effects** : Eye irritation  
Infant-methaemoglobinaemia
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium nitrate	Chronic NOAEL Oral	Rat - Male, Female	256 mg/kg	-

- Conclusion/Summary** : Not available.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.
- Absorption** : 50 % by Oral
- Distribution** : Systemic

**Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Ammonium nitrate	NOEC >1700 mg/l Marine water	Algae	10 days
	Acute EC50 490 mg/l Fresh water	Daphnia	48 hours
	Acute LC50 447 mg/l Fresh water	Fish	48 hours
Ammonium chloride	NOEC: 26.8 mg/l Marine water	Algae	10 days

**Conclusion/Summary** : Very low acute toxicity to fish. Based on available data, the classification criteria are not met.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not persistent.

## SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Ammonium nitrate	-	-	Readily
Diammonium hydrogenorthophosphate	-	-	Readily
Potassium chloride	-	-	Readily
Potassium nitrate	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Ammonium chloride	-3.2	-	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not applicable. Inorganic salt. Bioaccumulative potential - low

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable. Inorganic salt.  
Not applicable.

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

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

## SECTION 13: Disposal considerations

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

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. 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 10 02*	Fertiliser waste

#### 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

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## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ICAO
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

**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**

## 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** : This material is listed or exempted.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso III Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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



## SECTION 15: Regulatory information

Not listed.

### Stockholm Convention on Persistent Organic Pollutants

Not listed.

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

Not listed.

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### International lists

#### National inventory

<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>	: <b>Japan inventory (ENCS)</b> : All components are listed or exempted. <b>Japan inventory (ISHL)</b> : Not determined.
<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.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are listed or exempted.

**15.2 Chemical safety assessment** : Complete.

## SECTION 16: Other information

🔍 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 on the control of major-accident hazards involving dangerous substances  
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

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## SECTION 16: Other information

THE COUNCIL OF 13 OCTOBER 2003 RELATING TO FERTILISERS, with successive adaptations, amendments, and corrigenda.  
 American Conference of Governmental Industrial Hygienists, Threshold Limit Values for Chemical Substances, latest edition.  
 Corrosion Data Survey, Sixth Edition, 1985, National Association of Corrosion Engineers  
 ERG 2016 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
Eye Irrit. 2, H319	Calculation method

### Full text of abbreviated H statements

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

### Full text of classifications [CLP/GHS]

Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Aquatic Acute 1, H400	ACUTE AQUATIC HAZARD - Category 1
Aquatic Chronic 1, H410	LONG-TERM AQUATIC HAZARD - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Ox. Sol. 3, H272	OXIDISING SOLIDS - Category 3

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**Product definition** : Multi-constituent substance  
**Identification of the substance or mixture**  
**Code** : 3242-27972  
**Product name** : Compound fertiliser, granular, 15-15-15

**Section 1 - Title**

**Short title of the exposure scenario** : Agrium AN NPK 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:** PROC08a, PROC08b, PROC09, PROC26  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU01, SU03  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC02, ERC08b  
**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** - PROC08a, PROC08b, PROC09, PROC26  
**Clean-down and maintenance of equipment** - PROC08a, PROC08b, PROC09, PROC26  
**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 exposure scenario controlling environmental exposure for 1: Not applicable.**  
Not applicable. Not classified as dangerous to the environment.

**Contributing exposure 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 operational conditions affecting worker 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>	: 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, hygiene and health evaluation</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 exposure 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 operational conditions affecting worker 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. 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>	: Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.
<b>Engineering controls</b>	: 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, hygiene and health evaluation</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.

### Contributing exposure scenario controlling worker exposure for 3: 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 operational conditions affecting worker 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>	: 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, hygiene and health evaluation</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.

**Contributing exposure scenario controlling worker exposure for 4: 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 operational conditions affecting worker 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>	: 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, hygiene and health evaluation</b>	
<b>Personal protection</b>	: If operating conditions cause high dust concentrations to be produced, use dust goggles.

**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: 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.



**Exposure estimation and reference to its source - Workers:3: Clean-down and maintenance of equipment**

**Exposure assessment (human):** : Qualitative approach used to conclude safe use.

**Exposure estimation** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

**Exposure estimation and reference to its source - Workers:4: Product packaging**

**Exposure assessment (human):** : Qualitative approach used to conclude safe use.

**Exposure estimation** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

**Exposure estimation and reference to its source - Workers:5: Storage**

**Exposure assessment (human):** : Qualitative approach used to conclude safe use.

**Exposure estimation** : Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

**Section 4 - Guidance to Downstream User to evaluate if he works inside the boundaries set by the ES**

**Environment** : No additional risk management measures required.

**Health** : 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**

**Environment** : Use containment as appropriate. Good hygiene practices and housekeeping measures

**Health** : Not available.

**Product definition** : Multi-constituent substance

**Identification of the substance or mixture**

**Code** : 3242-27972

**Product name** : Compound fertiliser, granular, 15-15-15

**Section 1 - Title**

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

**List of use descriptors** : **Identified use name:** Professional use in formulation of preparations and end-use.  
**Process Category:** PROC08a, PROC08b, PROC09, PROC26  
**Substance supplied to that use in form of:** As such  
**Sector of end use:** SU01  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** 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 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.

<b>Technical conditions and measures to control dispersion from source towards the worker</b>	: Use containment as appropriate. 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.
<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>	: Avoid contact with eyes. Ensure good industrial hygiene. If operating conditions cause high dust concentrations to be produced, use dust goggles.
<b>Personal protection</b>	: Use suitable eye protection. If operating conditions cause high dust concentrations to be produced, use dust goggles.

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

<b>Website:</b>	: Qualitative approach used to conclude safe use.
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**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>Exposure assessment (environment):</b>	: Not applicable.
<b>EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE</b>	: Not available.

**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>Exposure assessment (human):</b>	: Qualitative approach used to conclude safe use.
<b>EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE</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.