

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.07.2018

version 8

Revision: 24.07.2018

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

- **1.1 Product identifier**
 - **Trade name:** NP/NPK - Fertilisers
 - **Synonyms** GNP/GNPK
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses:
Fertiliser
No uses advised against.
- **1.3 Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
ICL Fertilizers Europe C. V.
Fosfaatweg 48 1013 BM
P.O. Box 313, 1000 AH Amsterdam,
The Netherlands
Tel.: +31-(0)20-5815132
Fax: +31-(0)20-6868328
E-mail: msdsinfo@icl-group.com
- **1.4 Emergency telephone number:** In Europe call: +31-20-5815100 (24 hours a day, 365 days a year)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
 - **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

- **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.
 - **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labelling:**

Superphosphate (SSP)
Superphosphates, concd (TSP)
potassium sulfate
- **Hazard statements**

H318 Causes serious eye damage.
- **Precautionary statements**

P280 Wear eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

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- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Mixtures
- Description: Mixture: consisting of the following components.

· Components:

CAS: 65996-95-4 EINECS: 266-030-3 Reg.nr.: 01-2119493057-33-0000	Superphosphates, concd (TSP) ☠ Eye Dam. 1, H318	5-70%
CAS: 8011-76-5 EINECS: 232-379-5 Reg.nr.: 01-2119488967-11-0004	Superphosphate (SSP) ☠ Eye Dam. 1, H318	5-70%
CAS: 7778-80-5 EINECS: 231-915-5 Reg.nr.: 01-2119489441-34-0000	potassium sulfate ☠ Eye Irrit. 2, H319	0-80%
CAS: 7447-40-7 EINECS: 231-211-8	Potassium chloride	0-80%
CAS: 7783-20-2 EINECS: 231-984-1 Reg.nr.: 01-2119455044-46-0046	ammonium sulphate	1-75%
CAS: 1309-48-4 EINECS: 215-171-9	magnesium oxide substance with a Community workplace exposure limit	0-15%
CAS: 12291-65-5	Colemanite	0-25%
CAS: 1319-33-1	Ulexite	0-10%
CAS: 1317-35-7 EINECS: 215-266-5 Reg.nr.: 01-2119448167-35	trimanganese tetraoxide substance with a Community workplace exposure limit	0-3%
CAS: 1314-13-2 EINECS: 215-222-5 Index number: 030-013-00-7 Reg.nr.: 01-2119463881-32	zinc oxide ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.25%

Magnesium oxide is exempted from registration under Regulation (EC) 1907/2006, Article 2 (7) (b)

Potassium chloride, Colemanite, Ulexite are exempted from registration under Regulation (EC) 1907/2006 (not chemically modified natural mineral).

- SVHC None
- Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- General information: Do not leave affected persons unattended.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
Immediately wash with water and soap and rinse thoroughly.

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If skin irritation continues, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water.

Seek medical treatment.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

NOTE: Never give an unconscious person anything to drink.

· **4.2 Most important symptoms and effects, both acute and delayed** Causes serious eye damage.

· **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

The product is not flammable.

Use fire extinguishing methods suitable to surrounding conditions.

Foam

Fire-extinguishing powder

Carbon dioxide

Water spray

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Phosphorus oxides (e.g. P₂O₅)

Nitrogen oxides (NO_x)

Sulphur oxides (SO_x)

Ammonia

Hydrogen chloride (HCl)

Chlorine

Danger of toxic fluorine based pyrolysis products.

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information** Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Avoid formation of dust.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective clothing.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Pick up mechanically.

Damp down dust with water spray.

· **6.4 Reference to other sections**

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

Information about fire - and explosion protection:

The product is not flammable.

No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: Store in dry conditions.

Information about storage in one common storage facility: Do not store together with alkalis (caustic solutions).

Further information about storage conditions:

Protect from heat and direct sunlight.

Protect from humidity and water.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

1309-48-4 magnesium oxide

WEL (Great Britain) Long-term value: 10* 4** mg/m³
(as Mg) *inhalable dust **fume and respirable dust

PEL (USA) Long-term value: 15* mg/m³
fume; *total particulate

TLV (USA) Long-term value: 10* mg/m³
*as inhalable fraction

1317-35-7 trimanganese tetraoxide

IOELV (EU) Long-term value: 0.2* 0.05** mg/m³
as Mn; *inhalable, **respirable fraction

WEL (Great Britain) Long-term value: 0.5 mg/m³
as Mn

PEL (USA) Ceiling limit: 5 mg/m³
as Mn

REL (USA) Short-term value: 3 mg/m³
Long-term value: 1 mg/m³
as Mn

TLV (USA) Long-term value: 0.02* 0.1** mg/m³
as Mn; *respirable **inhalable fraction

1314-13-2 zinc oxide

PEL (USA) Long-term value: 15* 5** mg/m³
*total dust **respirable fraction and fume

REL (USA) Short-term value: 10** mg/m³
Long-term value: 5 mg/m³
Ceiling limit: 15* mg/m³
*dust only **fume

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TLV (USA)	Short-term value: 10* mg/m ³ Long-term value: 2* mg/m ³ *as respirable fraction
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· **DNELs**

65996-95-4 Suprphosphphate, conc (TSP) & 8011-76-5 Superphosphate (SSP):

For workers:

Long-term-systemic effects (inhalation) DNEL: 3.1 mg/m³

Long-term-systemic effects (dermal) DNEL: 17.4 mg/kg bw/day

For general population:

Long-term-systemic effects (inhalation) DNEL: 0.9 mg/m³

Long-term-systemic effects (oral) DNEL: 2.1 mg/kg bw/day

Long-term-systemic effects (dermal) DNEL: 10.4 mg/kg bw/day

7778-80-5 potassium sulfate:

For workers:

Long-term-systemic effects (inhalation) DNEL: 37.6 mg/m³

Long-term-systemic effects (dermal) DNEL: 21.3 mg/kg bw/day

For general population:

Long-term-systemic effects (inhalation) DNEL: 11.1 mg/m³

Long-term-systemic effects (dermal) DNEL: 12.8 mg/kg bw/day

Long-term-systemic effects (oral) DNEL: 12.8 mg/kg bw/day

· **PNECs**

65996-95-4 Superphosphates, conc (TSP) & 8011-76-5 Superphosphate (SSP):

PNEC aqua (freshwater): 1.7 mg/L

PNEC aqua (marine water): 0.17 mg/L

PNEC aqua (intermittent releases): 17 mg/L

PNEC STP: 10 mg/L

7778-80-5 potassium sulfate:

PNEC aqua (freshwater): 0.68 mg/L

PNEC aqua (marine water): 0.068 mg/L

PNEC aqua (intermittent releases): 6.8 mg/L

PNEC STP: 10 mg/L

· **Additional information:**

Ventilation must be sufficient to maintain TLV-TWA below 3 mg/m³, respirable particles, and 10 mg/m³, inhalable particles [ACGIH recommendation for Particles (Insoluble or poorly soluble). Not Otherwise Specified (PNOS)]

· **8.2 Exposure controls**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not eat or drink while working.

Avoid contact with the eyes.

· **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.



Filter P2

Filter FFP2

(EN 143 or EN 149)

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· **Protection of hands:**



Protective gloves

· **Material of gloves**

Butyl rubber, BR

Nitrile rubber, NBR

Chloroprene rubber, CR

· **Penetration time of glove material**

For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).

· **Eye protection:**



Tightly sealed goggles (EN 166)

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment**

Based on all data available this product is not considered to pose a risk to the environment.

The product should not get in high quantities into waste water because it may act as a plant nutrient and cause eutrophication.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Solid

Colour: Light brown

Grey

· **Odour:** Odourless

· **pH-value (10 g/l) at 20 °C:** 3.5-6

· **Change in condition**

Melting point/freezing point: Not applicable

Initial boiling point and boiling range: Not applicable

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Product is not flammable.

· **Ignition temperature:** Not applicable

· **Decomposition temperature:** >200 °C
Thermal decomposition on losing water.

· **Auto-ignition temperature:** Product is not selfigniting.
(based on molecular structure)

· **Explosive properties:** Product does not present an explosion hazard.
(based on molecular structure)

· **Explosion limits:** Not applicable

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- **Oxidising properties** This product does not contain any oxidizing agents.
- **Density:** Not determined.
- **Bulk density at 20 °C:** 950-1300 kg/m³
- **Solubility in / Miscibility with water:** Partly soluble.
- **Partition coefficient: n-octanol/water:** Not applicable
This product is inorganic.
- **Viscosity:** Not applicable
This product is solid. Viscosity is only relevant to liquids.
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No decomposition if used according to specifications.
- **10.2 Chemical stability** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with alkalis releasing ammonia.
- **10.4 Conditions to avoid**
To avoid thermal decomposition do not overheat.
Water
- **10.5 Incompatible materials:** Alkalis
- **10.6 Hazardous decomposition products:**
Formation of toxic gases is possible during heating or in case of fire.
Phosphorus oxides (e.g. P₂O₅)
Sulphur oxides (SO_x)
Nitrogen oxides (NO_x)
Ammonia
Hydrogen chloride (HCl)
Chlorine
Danger of toxic fluorine based pyrolysis products.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

7447-40-7 Potassium chloride		
Oral	LD50	3020 mg/kg (rat)
7783-20-2 ammonium sulphate		
Oral	LD50	4250 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
7778-80-5 potassium sulfate		
Dermal	LD50	>2000 mg/kg (rat) (OECD 402, EC B.3, EPA)

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· Primary irritant effect:

· Effect Species Method		
8011-76-5 Superphosphate (SSP)		
Irritation of eyes	OECD 405, EC B.5	irritating (rabbit)
65996-95-4 Superphosphates, concd (TSP)		
Irritation of eyes	OECD 405, EC B.5	irritating (rabbit)
7778-80-5 potassium sulfate		
Irritation of eyes	OECD 437	irritating (rabbit)

· **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.

· Serious eye damage/irritation:

Causes serious eye damage.

· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

· Toxicokinetics, metabolism and distribution

This product dissociates into calcium, potassium, magnesium, sulfate and phosphate ions, which are normal body and nutritional components.

This substance is not considered to have bioaccumulative potential as it is highly soluble in water and phosphate levels in the body are regulated via homeostasis.

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

· Germ cell mutagenicity

Based on available data, the classification criteria are not met.

according to OECD 471, 65996-95-4 Superphosphate conc (TSP) & 7778-80-5 Potassium sulphate and OECD 473, CAS 8011-76-5 Single superphosphate (SSP) & 7778-80-5 Potassium sulphate

· **Carcinogenicity:** Based on available data, the classification criteria are not met.

· Toxicity for reproduction:

Based on available data, the classification criteria are not met.

65996-95-4 Superphosphate, concd, TSP (OECD 422):

reproductive toxicity: ≥ 1500 mg/kg bw; rat; oral

developmental toxicity: NOAEL : 750 mg/kg bw/day; rat; oral

7778-80-5 Potassium sulphate (OECD 422):

reproductive / developmental toxicity: NOAEL : ≥ 1500 mg/kg bw; rat; oral

· **STOT-single exposure** Based on available data, the classification criteria are not met.

· STOT-repeated exposure		
65996-95-4 Superphosphates, concd (TSP)		
Oral	NOAEL	250 mg/kg bw/day (rat) (OECD 422 (subacute))
7778-80-5 potassium sulfate		
Oral	NOAEL	1,500 mg/kg bw/day (rat) (OECD 422, 28 days)

Based on available data, the classification criteria are not met.

· **Aspiration hazard** No data available

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

8011-76-5 Superphosphate (SSP)	
LC50/72 h	1790 mg/L (Daphnia carinata)

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65996-95-4 Superphosphates, concd (TSP)

EC50/72 h (static) >87.6 mg/L (algae) (OECD 201)
NOEC ≥87.6 mg/L

7447-40-7 Potassium chloride

EC50/120 h 1337 mg/l (algae)
EC50/21 d 130 mg/l (Daphnia magna)
EC50/48 h 660 mg/L (Daphnia magna)
LC50/96 h 880 mg/L (Fathead minnow fish)

7783-20-2 ammonium sulphate

EC50/48 h (static) 121.7 mg/L (Daphnia magna)
LC50/72 h (static) 2700 mg/L (algae) (OECD, freshwater)
LC50/96 h 53 mg/L (fish *Oncorhynchus mykiss*)

7778-80-5 potassium sulfate

LC50/96 h (static) 680 mg/L (Fathead minnow fish) (EPA, freshwater)
EC50/48 h (static) 720 mg/L (Daphnia magna) (EPA, freshwater)

- **12.2 Persistence and degradability** Anorganic product; therefore no biodegradation tests are applicable.
- **12.3 Bioaccumulative potential** Low potential for bioaccumulation (based on substance properties)
- **12.4 Mobility in soil** Low potential for adsorption (based on substance properties).
- **Ecotoxicological effects:**
- **Behaviour in sewage processing plants:**

Type of test	Effective concentration	Method	Assessment
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8011-76-5 Superphosphate (SSP)

EC50/3 h >100 mg/L (activated sludge) (OECD 209, EC C.11)

- **Remark:** Inorganic phosphates are not considered to be toxic to sewage treatment plant microorganisms.
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** No assessment is required for inorganic substances.
- **vPvB:** No assessment is required for inorganic substances.
- **12.6 Other adverse effects**
The product should not get in high quantities into waste water because it may act as a plant nutrient and cause eutrophication.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

This product is used as fertiliser. However, large spills can kill vegetation. Prevent large quantities from entering waterways. If uncontaminated, sweep up or collect, and reuse as product. If contaminated with other materials, collect in suitable containers.
Disposal must be made according to official regulations.

· **European waste catalogue**

02 01 08*	agrochemical waste containing hazardous substances
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- **Uncleaned packaging:**
- **Recommendation:**
Packaging may be reused or recycled after cleaning.

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Packagings that may not be cleansed are to be disposed of in the same manner as the product.

Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**
- DOT, ADR, ADN, IMDG, IATA
- **14.2 UN proper shipping name**
- DOT, ADR, ADN, IMDG, IATA
- **14.3 Transport hazard class(es)**
- DOT, ADR, ADN, IMDG, IATA
- Class
- **14.4 Packing group**
- DOT, ADR, IMDG, IATA
- **14.5 Environmental hazards:**
- Marine pollutant:
- **14.6 Special precautions for user**
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
- UN "Model Regulation":

Void

Void

Void

Void

None

No

Not applicable.

Not applicable.

Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Directive 2000/60 EC (phosphates)

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labelling:**
- Superphosphate (SSP)
- Superphosphates, concd (TSP)
- potassium sulfate
- **Hazard statements**
- H318 Causes serious eye damage.
- **Precautionary statements**
- P280 Wear eye protection / face protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- **REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction:** 65

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- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57 Not applicable**
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

- **Relevant phrases**
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
- **Department issuing SDS:**
HERA Division
telephone: +/972-8-6297835
telefax: +/972-8-6297832
e-mail: msdsinfo@icl-group.com
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
NOAEL: No Observable Adverse Effect Level
NOEC: No Observable Effect Concentration
OECD: Organisation for Economic Co-operation and Development
- *** Data compared to the previous version altered.**
The sections where alterations took place are marked with an asterisk in the left border.

· **Disclaimer**

Although the information and recommendations set forth herein (hereinafter ""information"") are presented in good faith and believed to be correct as of the date hereof, we make no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will we be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information.

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Annex: Exposure scenario 1

· **Short title of the exposure scenario**

Industrial use for formulation of preparations, intermediate use and end-use in industrial settings.

· **Sector of Use**

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

· **Product category**

PC12 Fertilisers

PC19 Intermediate

· **Process category**

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC5 Mixing or blending in batch processes

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC14 Tableting, compression, extrusion, pelletisation, granulation

· **Environmental release category**

ERC2 Formulation into mixture

ERC6a Use of intermediate

· **Description of the activities / processes covered in the Exposure Scenario**

All Process Categories are covered by this contributing scenario as all Operational Conditions (OCs) and Risk Management Measures (RMMs) are identical.

· **Conditions of use**

· **Duration and frequency**

Frequency of use:

5 workdays/week

> 4 hrs (>half working shift).

· **Environment**

An environmental assessment has not been performed as the substance/mixture does not meet the criteria for being classified as dangerous for the environment.

· **Physical parameters**

The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the mixture.

· **Physical state**

Solid in various forms

Liquid

Low dustiness

· **Used amount per time or activity** Not applicable

· **Other operational conditions**

· **Other operational conditions affecting worker exposure**

Indoor application.

Normally no personal respiratory protection required.

· **Risk management measures**

· **Worker protection**

· **Organisational protective measures** Not applicable

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· **Technical protective measures**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

· **Personal protective measures**

Tightly sealed goggles (EN 166)

Avoid contact with the eyes.

· **Disposal measures**

· **Waste type 02 01 08***: agrochemical waste containing hazardous substances

· **Exposure estimation**

A qualitative approach was used to conclude safe use for workers.

The leading toxicological effect is eye irritation (local endpoint), for which no DNEL can be derived as no dose-response information is available. As minimal systemic effects were only noted at such high levels of substance that humans are normally not exposed to (see DNELs), a quantitative assessment is not considered necessary.

· **Environment**

An environmental assessment has not been performed as the substance/mixture does not meet the criteria for being classified as dangerous for the environment.

· **Guidance for downstream users**

No additional risk management measures (RMMs), besides those that are mentioned above, are needed to guarantee safe use for workers.

· **Additional good practices advice beyond the REACH CSA:**

Keep good industrial hygiene.

Use suitable respiratory protective device in case of insufficient ventilation.

Management/supervision in place to check that RMMs in place are being used correctly and OCs followed

Training staff on good practice

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Annex: Exposure scenario 2

· **Short title of the exposure scenario** Professional use.

· **Sector of Use SU22** Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· **Product category PC12** Fertilisers

· **Process category**

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC5 Mixing or blending in batch processes

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC11 Non industrial spraying

PROC13 Treatment of articles by dipping and pouring

PROC19 Manual activities involving hand contact

· **Environmental release category**

ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)

ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)

· **Description of the activities / processes covered in the Exposure Scenario**

All Process Categories are covered by this contributing scenario as all Operational Conditions (OCs) and Risk Management Measures (RMMs) are identical.

· **Conditions of use**

· **Duration and frequency**

Frequency of use:

5 workdays/week

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> 4 hrs (>half working shift).

· **Environment**

An environmental assessment has not been performed as the substance/mixture does not meet the criteria for being classified as dangerous for the environment.

· **Physical parameters**

· **Physical state**

Solid

Liquid

Low dustiness

· **Other operational conditions**

· **Other operational conditions affecting worker exposure**

Indoor application.

Outdoor application.

Normally no personal respiratory protection required.

· **Risk management measures**

· **Worker protection**

· **Technical protective measures**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

Avoid splashing. Use specific dispensers and pumps specifically to designed to prevent splashes/spills/exposure to occur.

· **Personal protective measures** Tightly sealed goggles (EN 166)

· **Disposal measures**

· **Waste type** 02 01 08* agrochemical waste containing dangerous substances

· **Exposure estimation**

A qualitative approach was used to conclude safe use for workers.

The leading toxicological effect is eye irritation (local endpoint), for which no DNEL can be derived as no dose-response information is available. As minimal systemic effects were only noted at such high levels of substance that humans are normally not exposed to (see DNELs), a quantitative assessment is not considered necessary.

· **Environment**

An environmental assessment has not been performed as the substance/mixture does not meet the criteria for being classified as dangerous for the environment.

· **Guidance for downstream users**

No additional risk management measures (RMMs), besides those that are mentioned above, are needed to guarantee safe use for workers.

· **Additional good practices advice beyond the REACH CSA:**

Management/supervision in place to check that RMMs in place are being used correctly and OCs followed

Training staff on good practice

Keep good industrial hygiene.

Use suitable respiratory protective device in case of insufficient ventilation.

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Annex: Exposure scenario 3

· **Short title of the exposure scenario** Consumer end-use of fertilisers and other products

· **Sector of Use** SU21 Consumer uses: Private households / general public / consumers

· **Product category** PC12 Fertilisers

· **Environmental release category**

ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)

ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)

· **Description of the activities / processes covered in the Exposure Scenario** Distributing of fertilisers

· **Conditions of use**

· **Duration and frequency** Not applicable

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· **Environment**

An environmental assessment has not been performed as the substance/mixture does not meet the criteria for being classified as dangerous for the environment.

· **Physical parameters**

· **Physical state**

Solid

Liquid

Low dustiness

· **Used amount per time or activity** Not applicable

· **Other operational conditions**

· **Other operational conditions affecting worker exposure**

Indoor application.

Outdoor application.

· **Risk management measures**

· **Worker protection**

· **Personal protective measures** Safety glasses

· **Disposal measures**

· **Waste type** 02 01 08* agrochemical waste containing dangerous substances

· **Exposure estimation**

A qualitative approach was used to conclude safe use for workers.

The leading toxicological effect is eye irritation (local endpoint), for which no DNEL can be derived as no dose-response information is available. As minimal systemic effects were only noted at such high levels of substance that humans are normally not exposed to (see DNELs), a quantitative assessment is not considered necessary.

· **Environment**

An environmental assessment has not been performed as the substance/mixture does not meet the criteria for being classified as dangerous for the environment.

· **Guidance for downstream users**

No additional risk management measures (RMMs), besides those that are mentioned above, are needed to guarantee safe use for consumers.

· **Additional good practices advice beyond the REACH CSA:**

Prevent formation of dust.

Wear protective gloves / eye protection.

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