

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

Trade name: Superphosphate, concentrated (TSP)

Synonyms

Triple Superphosphate, TSP; Granulated Triple Superphosphate, GTSP; Granular TSP; TSP powder (TSPROP);

Super 45

CAS Number:

65996-95-4

EC number:

266-030-3

Registration number 01-2119493057-33-0000

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

Relevant identified uses:

Fertilizer

Processing aid/ Additive

Intermediate

No uses advised against.

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:

Elixir Garden Supplies Ltd

Unit 1 Middlegate

White Lund Industrial Estate

Morecambe

LA3 3BN

44(0) 1524 741229

info@elixirgardens.co.uk

1.4 Emergency telephone number: 44(0) 1524 741229

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.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant

R41: Risk of serious damage to eyes.

2.2 Label elements




Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



GHS05

<p>Signal word Danger</p> <p>Hazard statements</p> <p>H318 Causes serious eye damage.</p> <p>Precautionary statements</p> <p>P280 Wear protective gloves and eye protection.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER or doctor/physician.</p> <p>2.3 Other hazards</p> <p>Results of PBT and vPvB assessment</p> <p>PBT: Not applicable.</p> <p>vPvB: Not applicable.</p>																								
SECTION 3: Composition/information on ingredients																								
<p>3.1 Substances</p> <p>CAS No. Description</p> <p>65996-95-4 Superphosphates, concd (TSP)</p> <p>EC number: 266-030-3</p> <p>Additional information: This product is a multi-constituent substance.</p> <table border="1"> <thead> <tr> <th colspan="5">Components</th></tr> </thead> <tbody> <tr> <td>CAS: 7758-23-8 EINECS: 231-837-1</td><td>Calcium bis(dihydrogenorthophosphate</td><td></td><td>Xi R41 Eye Dam. 1, H318</td><td>≥65%</td></tr> <tr> <td>CAS: 7778-18-9 EINECS: 231-900-3</td><td>calcium sulphate</td><td></td><td></td><td>≥3%</td></tr> <tr> <td>CAS: 7757-93-9 EINECS: 231-826-1</td><td>calcium hydrogenorthophosphate</td><td></td><td></td><td>≥2%</td></tr> </tbody> </table>					Components					CAS: 7758-23-8 EINECS: 231-837-1	Calcium bis(dihydrogenorthophosphate		Xi R41 Eye Dam. 1, H318	≥65%	CAS: 7778-18-9 EINECS: 231-900-3	calcium sulphate			≥3%	CAS: 7757-93-9 EINECS: 231-826-1	calcium hydrogenorthophosphate			≥2%
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SVHC None																								
SECTION 4: First aid measures																								
<p>4.1 Description of first aid measures</p> <p>General information: Do not leave affected persons unattended.</p> <p>After inhalation: Supply fresh air; consult doctor in case of complaints.</p> <p>After skin contact:</p> <p>Immediately wash with water and soap and rinse thoroughly.</p> <p>If skin irritation continues, consult a doctor.</p> <p>After eye contact:</p> <p>Rinse opened eye for several minutes under running water.</p> <p>Seek medical treatment.</p> <p>After swallowing:</p> <p>Rinse out mouth and then drink plenty of water.</p> <p>If symptoms persist consult doctor.</p> <p>NOTE: Never give an unconscious person anything to drink.</p> <p>4.2 Most important symptoms and effects, both acute and delayed Causes serious eye damage.</p> <p>4.3 Indication of any immediate medical attention and special treatment needed</p> <p>No further relevant information available.</p>																								
SECTION 5: Firefighting measures																								
<p>5.1 Extinguishing media</p> <p>Suitable extinguishing agents:</p> <p>The product is not flammable.</p>																								

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents: None

5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

Phosphorus oxides (e.g. P₂O₅)

Sulphur oxides (SO_x)

Danger of toxic fluorine based pyrolysis products.

5.3 Advice for firefighters

Protective equipment:

Wear fully protective suit.

Mouth respiratory protective device.

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.

Ensure adequate ventilation

Use respiratory protective device against the effects of dust.

Wear protective clothing.

6.2 Environmental precautions: Do not allow product to reach sewage system or any water course.

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.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Prevent formation of dust.

Ensure good ventilation/exhaustion at the workplace.

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 a cool location.

Information about storage in one common storage facility:

Do not store together with alkalis (caustic solutions).

Do not store together with urea.

Further information about storage conditions:

Protect from humidity and water.

Protect from heat and direct sunlight.

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: Not required.

DNELs

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

PNECs

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

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.

Do not eat or drink while working.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter P2

Filter FFP2

(EN 143 or EN 149)

Protection of hands:

Protective gloves

Material of gloves

Butyl rubber, BR (0.7 mm)

Chloroprene rubber, CR (0.5 mm)

Nitrile rubber, NBR (0.4 mm)

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be

observed. (EN 374)

Eye protection:

Tightly sealed goggles (EN 166)

Body protection:

Light weight protective clothing

Boots

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.

Risk management measures

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties
General Information
Appearance:
Form:

Crystalline powder

Granulate

Colour:

Grey

Light Brown

Odour:

Acidic

pH-value (10 g/l) at 20°C:

3,6

Change in condition
Melting point/Melting range:

Undetermined

Decomposes before melting

Boiling point/Boiling range:

None

The substance decomposes before boiling

Flash point:

Not applicable

This product is inorganic substance

Flammability (solid, gaseous):

Product is not flammable.

(Based on molecular structure)

Ignition temperature:

Not applicable

Decomposition temperature:

>200°C

Thermal decomposition on losing water.

Self-igniting:

Product is not selfigniting

(Based on molecular structure)

Danger of explosion:

Product does not present an explosion hazard

(Based on molecular structure)

Explosion limits:

None

Oxidizing properties

None

The substance does not contain any groups associated with oxidising properties.

Vapour pressure at 20°C:

8,4x10⁻⁷ Pa (OECD 104, EC A.4)

Bulk density at 20°C:

1,0-1,2 g/cm³
Solubility in / Miscibility with water:

Partly soluble

Segregation coefficient (n-octanol/water):

Not applicable

This substance is inorganic chemical

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

Reacts with alkali (lyes).

Mixing with urea causes formation of very sticky urea phosphate.

10.2 Chemical stability No decomposition if used and stored according to specifications

10.3 Possibility of hazardous reactions

Toxic fumes may be released if heated above the decomposition point

10.4 Conditions to avoid To avoid thermal decomposition do no overheat.

10.5 Incompatible materials:

Alkalies

Urea

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)
Danger of toxic fluorine based pyrolysis products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD/LD₅₀ values relevant for classification:

No reliable study with this product is present.

This study is conducted on an analogous substance. (read-across)

No classification is necessary

7783-28-0 diammonium hydrogenorthophosphate

Oral	LD ₅₀	>2000 mg/kg (rat) (OECD 425)
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Dermal	LD ₅₀	>2000 mg/kg (rat) (OECD 402)
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Inhalative	LD ₅₀ /4 h	>5,0 mg/l (rat) (OECD 403)
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Primary irritant effect:

Effect species method

7722-76-1 Ammonium dihydrogenorthophosphate

Irritation of skin	equivalent to OECD 404	Not irritating (rabbit)
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65996-95-4 Superphosphates, concd (TSP)

Irritation of eyes	OECD 405, EC B.5	Irritating (rabbit)
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7783-28-0 diammonium hydrogenorthophosphate

Sensitisation	OECD 429, EC B.42	No effect (mouse)
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Toxicokinetics, metabolism and distribution

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

Repeated dose toxicity

No classification is necessary

Oral	NOAEL	250 mg/kg bw/day (rat) (OECD 422 (subacute))
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CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity:

None

(acc to OECD 471 and OECD 473 tests with CAS 65996-95-4 Superphosphate concentrated)

Carcinogenicity:

no data available

(no carcinogenicity study needs to be performed as this substance is not genotoxic)

Toxicity for reproduction:

no classification is necessary

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

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

(OECD 422)

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Inorganic phosphates are not considered to be toxic to aquatic species.

7722-76-1 Ammonium dihydrogenorthophosphate

LC ₅₀ /96 h (static)	>85,9 mg/L (fish <i>Oncorhynchus mykiss</i>) (OECD 203) freshwater
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8011-76-5 Superphosphate (SSP)

LC ₅₀ /72 h	1790 mg/L (<i>Daphnia carinata</i>) (Stand Meth for the Exam of Water and Wastewater)
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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
12.2 Persistence and degradability The substance is inorganic; therefore no biodegradation tests are applicable. This product dissociates into calcium, sulphate and phosphate ions, which cannot be further degraded. Other information: The product should not get in high quantities into waste water because it may act as a plant nutrient and cause eutrophication.	
12.3 Bioaccumulative potential Does not accumulate in organisms This substance is highly water soluble and dissociating.	
12.4 Mobility in soil Low potential for adsorption (based on substance properties).	
Behaviour in sewage processing plants:	
Type of test	Effective concentration Method Assessment
8011-76-5 Superphosphate (SSP)	
EC50/3 h	>100 mg/L (activated sludge) (OECD 209, EC C.11)
Remark: No reliable study with this product is present. This study is conducted on an analogous substance (read-across) Inorganic phosphates are not considered to be toxic to sewage treatment plant microorganisms.	
General notes: According to the criteria of the EU-classification and labelling “dangerous for environment” (93/21/EWG) the substance/the product has to be classified as non-hazardous for the environment.	
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 No further relevant information available.	

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. Can be reused without reprocessing. Disposal must be made in accordance with Local Authority requirements.	
European waste catalogue	
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
Uncleaned packaging: Recommendation: Packaging may be reused or recycled after cleaning. Disposal must be made in accordance with Local Authority requirements.	
Recommended cleansing agents: Water, if necessary together with cleansing agents.	

SECTION 14: Transport information

14.1 UN-Number	None
14.2 UN proper shipping name	None
14.3 Transport hazard class(es)	
DOT, ADR, IMDG, IATA	
Class	None
14.4 Packing Group	None
14.5 Environmental Hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Not applicable
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code	Not applicable
Transport/Additional Information:	Not dangerous according to the above specifications
UN "Model Regulation":	None

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 substance is classified and labelled according to the CLP regulation.

Hazard pictograms


GHS05

Signal word Danger

Hazard statements

H318 Causes serious eye damage.

Precautionary statements

P280 Wear protective gloves and eye 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 or doctor/physician.

National regulations:

Additional classification according to Decree on Hazardous Materials, Annex II: None

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57 None

Registration status (Chemical Inventories listing):

United States (TSCA): listed

Australia (AICS): listed

Korea (KECI): listed

China (IECSC): listed

NTP (National Toxicology Program): Substance is not listed

IARC (International Agency for Research on Cancer): Substance is not listed

15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Relevant phrases

H318 Causes serious eye damage.

R41 Risk of serious damage to eyes.

Department issuing MSDS: EHS UNIT in ISRAEL

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 Organization

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 Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial 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

NOAEL: No Observable Adverse Effect Level

NOEC: No Observable Effect Concentration

OECD: Organisation for Economic Co-operation and Development

Sources

REACH dossier, 2010

REACH CSR, 2010

* Data compared to the previous version altered.

Reason for revision: Compliance with Reg. 453/2010 EC, amending Reg. 1907/2006 EC.

The sections where alterations took place are marked with an asterisk in the left border

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SECTION 17: 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

PC9b Fillers, putties, plasters, modelling clay

PC12 Fertilizers

PC19 Intermediate

Process category

PROC1 Use in closed process, no likelihood of exposure

PROC2 Use in closed, continuous process with occasional controlled exposure

PROC3 Use in closed batch process (synthesis or formulation)

PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises

PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/

or significant contact)

PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at

non-dedicated facilities

PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at

dedicated facilities

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

PROC14 Production of preparations or articles by tableting, compression, extrusion, pelletisation

Environmental release category

ERC2 Formulation of preparations

ERC3 Formulation in materials

ERC6a Industrial use resulting in manufacture of another substance (use of intermediates)

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

Low dustiness

Liquid

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

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.

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

SECTION 17: 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

PC9b Fillers, putties, plasters, modelling clay

PC12 Fertilizers

Process category

PROC2 Use in closed, continuous process with occasional controlled exposure

PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/

or significant contact)

PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at

non-dedicated facilities

PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at

dedicated facilities

PROC11 Non industrial spraying

PROC13 Treatment of articles by dipping and pouring

PROC19 Hand-mixing with intimate contact and only PPE available

Environmental release category

ERC8b Wide dispersive indoor use of reactive substances in open systems

ERC8e Wide dispersive outdoor use of reactive substances in open systems

ERC8f Wide dispersive outdoor use resulting in inclusion into or onto a matrix

ERC9b Wide dispersive outdoor use of substances in closed systems

ERC10a Wide dispersive outdoor use of long-life articles and materials with low release

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
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 designed to prevent splashes/spills/exposure to occur.

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

SECTION 17: 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

PC9b Fillers, putties, plasters, modelling clay

PC12 Fertilizers

Environmental release category

ERC8b Wide dispersive indoor use of reactive substances in open systems

ERC8e Wide dispersive outdoor use of reactive substances in open systems

ERC8f Wide dispersive outdoor use resulting in inclusion into or onto a matrix

ERC10a Wide dispersive outdoor use of long-life articles and materials with low release

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 Not applicable

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

Concentration of the substance in the mixture >1%

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

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.