

Safety data sheet
according to 1907/2006/EC and 453/2010/EC

Printing date 05.04.2012

version 5

Revision: 05.04.2012

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 (TSP-ROP); 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:**

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: sluis@iclfertilizers.eu

· **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.

· **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

· **Signal word** Danger

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· **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.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.1 Substances**



· **CAS No. Description**

65996-95-4 Superphosphates, concd (TSP)

· **EC number:** 266-030-3

· **Additional information:** This product is a multi-constituent substance.

· **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%

· **SVHC** None

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.

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.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
The product is not flammable.
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.

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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)

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· **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.

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- **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 not 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/LC50 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	LD50	>2000 mg/kg (rat) (OECD 425)
Dermal	LD50	>2000 mg/kg (rat) (OECD 402)
Inhalative	LC50/4 h	>5,0 mg/l (rat) (OECD 403)

- **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, sulfate 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

LC50/96 h (static)	>85,9 mg/L (fish <i>Oncorhynchus mykiss</i>) (OECD 203)
	freshwater

8011-76-5 Superphosphate (SSP)

LC50/72 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, sulfate 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).

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· **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
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· **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.

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· UN "Model Regulation":

None

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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

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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

• **Disclaimer**

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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.

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· **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

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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.

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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.

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Safety data sheet
according to 1907/2006/EC and 453/2010/EC

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version 5

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Trade name: Superphosphate, concentrated (TSP)

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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.
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