

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

Printing date 27.11.2016

version 1

Revision: 27.11.2016

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

· **1.1 Product identifier**

- **Trade name:** Nova Calcium
- **CAS Number:** 15245-12-2
- **EC number:** 239-289-5
- **Registration number** 01-2119493947-16

· **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:**

Rotem Amfert Negev Ltd.

ICL Specialty Fertilizers

Mishor Rotem, Mobile Post Arava 86800

ISRAEL

Phone: +972-4-8468115

E-mail: Royie.Mashiah@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.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

· **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



GHS07

· **Signal word** Danger

· **Hazard statements**

H302 Harmful if swallowed.

H318 Causes serious eye damage.

· **Precautionary statements**

P280

Wear eye protection / face protection.

P264

Wash thoroughly after handling.

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P270 Do not eat, drink or smoke when using this product.

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/.

P330 Rinse mouth.

· **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**

15245-12-Nitric acid, ammonium calcium salt

· **EC number:** 239-289-5

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **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 immediate medical advice.

· **After swallowing:**

Do not induce vomiting; call for medical help immediately.

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 specific antidote. Treat symptomatically and supportively.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** Water

· **For safety reasons unsuitable extinguishing agents:**

Foam

Sand

Steam

Chemical extinguisher

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

In case of fire, the following can be released:

Nitrogen oxides (NOx)

Metal oxide/oxides

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Remove persons from danger area.
Ensure adequate ventilation
Particular danger of slipping on leaked/spilled product.
Use suitable respiratory protective device in case of insufficient ventilation.
Wear protective equipment. Keep unprotected persons away.
- **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.
Send for recovery or disposal in suitable receptacles.
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
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**
Ensure good ventilation/exhaustion at the workplace.
Store in cool, dry place in tightly closed receptacles.
Use suitable respiratory protective device in case of insufficient ventilation.
- **Information about fire - and explosion protection:** The product is not flammable.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
Store in cool, dry place in tightly closed receptacles.
Protect from heat and direct sunlight.
Store in a well-ventilated place.
- **Information about storage in one common storage facility:**
Do not store together with organic materials.
Keep away from acids, reducing agents and flammable materials.
Do not store together with alkalis (caustic solutions).
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:**
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)]
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **DNELs**
For general population:
Acute-systemic effects (oral) DNEL: 10 mg/kg bw/d

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· **PNECs**

PNEC aqua (marine water): 0.045 mg/L
 PNEC aqua (freshwater): 0.45 mg/L
 PNEC aqua (intermittent releases): 4.5 mg/L
 PNEC STP: 18 mg/L

· **8.2 Exposure controls**

· **General protective and hygienic measures:**

Do not eat or drink while working.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 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

· **Protection of hands:**



Protective gloves

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **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:** 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.

· **Risk management measures**

Do not allow large quantities of product 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: Granulate

Colour: White

· **Odour:** Odourless

· **Odour threshold:** Not determined.

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- **pH-value (110 g/l) at 20 °C:** 5-7
- **Change in condition**
 - Melting point/Melting range:** > 400 °C
 - Boiling point/Boiling range:** Undetermined.
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Product is not flammable.
(based on molecular structure)
- **Ignition temperature:**
 - Decomposition temperature:** >210 °C
- **Self-igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
(based on molecular structure)
- **Explosion limits:** None
- **Oxidising properties:** None
- **Vapour pressure:** Not determined
- **Density at 20 °C:** 2,05 g/cm³
- **Relative density at 20 °C:** 2,05 g/cm³
- **Vapour density:** Not determined
- **Solubility in / Miscibility with water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not applicable
This product is inorganic.
- **Viscosity:** 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 reducing agents.
 - Reacts with organic substances.
 - Reacts with acids.
 - Reacts with alkali (lyes).
- **10.2 Chemical stability** No decomposition if used and stored according to specifications.
- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **10.3 Possibility of hazardous reactions** No dangerous reaction if used according to specifications.
- **10.4 Conditions to avoid** Keep away from sources of ignition - No smoking.
- **10.5 Incompatible materials:**
 - Alkalis
 - Acids
 - Organic materials
 - reducing agents
 - Chlorides
 - Chromates
 - Metals
 - Keep away from combustible materials.

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- **10.6 Hazardous decomposition products:**
Formation of toxic gases is possible during heating or in case of fire.
Nitrogen oxides
Toxic metal oxide smoke

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful if swallowed.

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

Oral	LD50	>300 - <2000 mg/kg (rat) (OECD 423)
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905593-70-6 Nitric acid, calcium potassium salt, hydrate

Dermal	LD50	>2000 mg/kg (rat) (OECD 402)
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- **Primary irritant effect:**

- **Effect Species Method**

Irritation of eyes	OECD 405, EC B.5	irritating (rabbit)
Sensitisation	OECD 429, EC B.42	not sensitising (guinea pig)

905593-70-6 Nitric acid, calcium potassium salt, hydrate

Irritation of skin	OECD 404	not irritating (rabbit)
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- **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.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** (according to OECD 471, OECD 473, OECD 476 test (s))
- **Carcinogenicity:**
no data available
(no carcinogenicity study needs to be performed as this substance is not genotoxic)
- **Toxicity for reproduction:**
no classification is necessary
NOAEL (maternal and developmental) >1500 mg/kg bw/day (tested on Potassium Nitrate)
- **STOT-single exposure** Based on available data, the classification criteria are not met.

- **STOT-repeated exposure**

905593-70-6 Nitric acid, calcium potassium salt, hydrate

Oral	NOAEL	>1000 mg/kg bw/day (rat) (OECD 407)
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Based on available data, the classification criteria are not met.

- **Aspiration hazard** No data available

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

EC50/48 h	>100 mg/L (<i>Daphnia magna</i>) (OECD 202, EC C.2)
EC50/72 h	>100 mg/L (algae) (OECD 202)
	NOEC 100 mg/L

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6484-52-2 ammonium nitrate

LC50/48 h (static) | 447 mg/L (fish) (freshwater)

12.2 Persistence and degradability

This product dissociates into Ca²⁺, NH₄⁺ and NO₃⁻ ions, which cannot be further degraded.
The substance is inorganic; therefore no biodegradation tests are applicable.

12.3 Bioaccumulative potential

This substance is highly water soluble and dissociating.
Low potential for bioaccumulation (based on substance properties)

12.4 Mobility in soil

This substance is highly water soluble and dissociating.
Low potential for adsorption (based on substance properties).

Behaviour in sewage processing plants:

Type of test	Effective concentration	Method	Assessment
7631-99-4 sodium nitrate			
EC10	180 mg/L	(activated sludge)	(OECD 209)
EC50	>1000 mg/L	(activated sludge)	(OECD 209)

12.5 Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

• **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.

Disposal must be made in accordance with Local Authority requirements.

Uncleaned packaging:

• **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

• **14.1 UN-Number**

None

• **14.2 UN proper shipping name**

None

• **14.3 Transport hazard class(es)**

• **DOT, ADR, ADN, IMDG, IATA**

• **Class**

Void

• **14.4 Packing group**

Not applicable

• **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 Marpol and the IBC Code**

Not applicable.

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· UN "Model Regulation":

Void

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SECTION 15: Regulatory information

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

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

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

· **Hazard pictograms**



GHS05 GHS07

· **Signal word Danger**

· **Hazard statements**

H302 Harmful if swallowed.

H318 Causes serious eye damage.

· **Precautionary statements**

P280 Wear eye protection / face protection.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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/.

P330 Rinse mouth.

· **Registration status (Chemical Inventories listing) :**

United States (TSCA) : listed

Europe (EINECS) : listed

Canada (DSL) : listed

Korea (KECI) : listed

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

SECTION 16: Other information

· **Department issuing SDS: Regulatory Affairs of ICL Fertilizers Products**

· **Abbreviations and acronyms:**

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

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

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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

· Product category

- PC1 Adhesives, sealants*
- PC4 Anti-Freeze and de-icing products*
- PC9a Coatings and paints, thinners, paint removers*
- PC11 Explosives*
- PC12 Fertilisers*
- PC15 Non-metal-surface treatment products*
- PC16 Heat transfer fluids*
- PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents*
- PC21 Laboratory chemicals*
- PC29 Pharmaceuticals*
- PC35 Washing and cleaning products (including solvent based products)*
- PC37 Water treatment chemicals*
- PC39 Cosmetics, personal care products*

· 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*
- PROC5 Mixing or blending in batch processes*
- 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)*
- PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities*
- PROC15 Use as laboratory reagent*
- PROC14 Tableting, compression, extrusion, pelletisation, granulation*
- PROC19 Manual activities involving hand contact*

· Environmental release category

- ERC2 Formulation into mixture*
- ERC3 Formulation into solid matrix*

· 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 8hrs (full working shift).**

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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

· **Concentration of the substance in the mixture** <100%

· **Other operational conditions**

· **Other operational conditions affecting environmental exposure** No special measures required.

· **Other operational conditions affecting worker exposure**

Indoor application.

Normally no personal respiratory protection required.

· **Risk management measures**

· **Worker protection**

· **Organisational protective measures** No special measures required.

· **Technical protective measures** Ensure adequate ventilation

· **Personal protective measures**

Tightly sealed goggles (EN 166)

Wear work clothing with long sleeves.

Protective gloves

· **Disposal measures** Disposal must be made according to official regulations.

· **Waste type** Partially emptied and uncleaned packaging

· **Exposure estimation**

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

The leading toxicological effect is eye irritation (local endpoint). As chemical goggles are worn (or full face shield), the risk of the substance for causing ocular effects is considered to be controlled.

· **Worker (oral)** No significant oral exposure

· **Worker (dermal)**

As protective clothing and chemically resistant gloves are worn, the likelihood of adverse local effects is considered avoided.

· **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

Annex: Exposure scenario 2

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

· **Sector of Use**

SU2a Mining, (without offshore industries)

SU2b Offshore industries

SU6a Manufacture of wood and wood products

SU6b Manufacture of pulp, paper and paper products

SU8 Manufacture of bulk, large scale chemicals (including petroleum products)

SU9 Manufacture of fine chemicals

SU11 Manufacture of rubber products

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- SU12 Manufacture of plastics products, including compounding and conversion
- SU13 Manufacture of other non-metallic mineral products, e.g. plasters, cement
- SU15 Manufacture of fabricated metal products, except machinery and equipment
- SU16 Manufacture of computer, electronic and optical products, electrical equipment
- SU17 General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
- SU18 Manufacture of furniture
- SU19 Building and construction work
- SU23 Electricity, steam, gas water supply and sewage treatment

· **Product category**

- PC1 Adhesives, sealants
- PC4 Anti-Freeze and de-icing products
- PC9a Coatings and paints, thinners, paint removers
- PC11 Explosives
- PC14 Metal surface treatment products
- PC15 Non-metal-surface treatment products
- PC16 Heat transfer fluids
- PC19 Intermediate
- PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
- PC35 Washing and cleaning products (including solvent based products)
- PC37 Water treatment chemicals

· **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
- PROC7 Industrial spraying
- 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)
- PROC10 Roller application or brushing
- PROC13 Treatment of articles by dipping and pouring
- PROC15 Use as laboratory reagent
- PROC19 Manual activities involving hand contact
- PROC26 Handling of solid inorganic substances at ambient temperature

· **Environmental release category**

- ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
- ERC5 Use at industrial site leading to inclusion into/onto article
- ERC6a Use of intermediate
- ERC6b Use of reactive processing aid at industrial site (no inclusion into or onto article)
- ERC6d Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)
- ERC7 Use of functional fluid at industrial site

· **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** 8hrs (full 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.

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- **Physical parameters**
- **Physical state**
Solid
Liquid
- **Concentration of the substance in the mixture** <100%
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting worker exposure**
Indoor application.
Normally no personal respiratory protection required.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** Ensure adequate ventilation
- **Personal protective measures**
Tightly sealed goggles (EN 166)
Wear work clothing with long sleeves.
Protective gloves
- **Disposal measures** Disposal must be made according to official regulations.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
A qualitative approach was used to conclude safe use for workers.
The leading toxicological effect is eye irritation (local endpoint). As chemical goggles are worn (or full face shield), the risk of the substance for causing ocular effects is considered to be controlled.
- **Worker (oral)** No significant oral exposure
- **Worker (dermal)**
As protective clothing and chemically resistant gloves are worn, the likelihood of adverse local effects is considered avoided.
- **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

Annex: Exposure scenario 3

- **Short title of the exposure scenario** Professional use.
- **Sector of Use**
SU1 Agriculture, forestry, fishery
SU2a Mining, (without offshore industries)
SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU13 Manufacture of other non-metallic mineral products, e.g. plasters, cement
SU15 Manufacture of fabricated metal products, except machinery and equipment
SU17 General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
SU19 Building and construction work
SU23 Electricity, steam, gas water supply and sewage treatment

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· **Product category**

- PC4 Anti-Freeze and de-icing products
- PC9a Coatings and paints, thinners, paint removers
- PC11 Explosives
- PC12 Fertilisers
- PC14 Metal surface treatment products
- PC16 Heat transfer fluids
- PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
- PC35 Washing and cleaning products (including solvent based products)
- PC37 Water treatment chemicals

· **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
- 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)
- PROC10 Roller application or brushing
- PROC11 Non industrial spraying
- PROC13 Treatment of articles by dipping and pouring
- PROC15 Use as laboratory reagent
- PROC19 Manual activities involving hand contact
- PROC26 Handling of solid inorganic substances at ambient temperature

· **Environmental release category**

- ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
- ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
- ERC8c Widespread use leading to inclusion into/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)
- ERC8f Widespread use leading to inclusion into/onto article (outdoor)
- ERC9a Widespread use of functional fluid (indoor)
- ERC9b Widespread use of functional fluid (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** 8hrs (full 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

· **Concentration of the substance in the mixture** <100%

· **Other operational conditions**

· **Other operational conditions affecting environmental exposure** No special measures required.

· **Other operational conditions affecting worker exposure**

Indoor application.

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Outdoor application.

Normally no personal respiratory protection required.

· Risk management measures

· Worker protection

· Organisational protective measures *No special measures required.*

· Technical protective measures *Ensure adequate ventilation*

· Personal protective measures

Tightly sealed goggles (EN 166)

Wear work clothing with long sleeves.

Protective gloves

· Disposal measures *Disposal must be made according to official regulations.*

· Waste type *Partially emptied and uncleaned packaging*

· Exposure estimation

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

The leading toxicological effect is eye irritation (local endpoint). As chemical goggles are worn (or full face shield), the risk of the substance for causing ocular effects is considered to be controlled.

· Worker (oral) *No significant oral exposure*

· Worker (dermal)

As protective clothing and chemically resistant gloves are worn, the likelihood of adverse local effects is considered avoided.

· 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

Annex: Exposure scenario 4

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

· Product category

PC4 Anti-Freeze and de-icing products

PC9a Coatings and paints, thinners, paint removers

PC12 Fertilisers

PC37 Water treatment chemicals

PC39 Cosmetics, personal care products

· Environmental release category

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

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

ERC8c Widespread use leading to inclusion into/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)

ERC8f Widespread use leading to inclusion into/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 *8hrs (full working shift).*

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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

· Concentration of the substance in the mixture <100%**· Other operational conditions****· Other operational conditions affecting worker exposure**

Indoor application.

Outdoor application.

Normally no personal respiratory protection required.

· Risk management measures**· Worker protection****· Personal protective measures** Safety glasses**· Disposal measures** Disposal must be made according to official regulations.**· Waste type** Partially emptied and uncleaned packaging**· Exposure estimation**

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

The likelihood of adverse effects is considered to be negligible.

· 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:

Prevent formation of dust.

Wear protective gloves/eye protection.