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

Printing date 06.06.2023 Version number: 2 Revision date: 06.06.2023

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

- 1.1 Product identifier
- Trade name: 16-6-30+3CaO
- *Synonyms* 15-5-29+3CaO
- Article number:

MS-100097

6116063001

- 1.2 Relevant identified uses of the substance or mixture and uses advised against Water Soluble Fertilizer
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

Fertilizers & Chemicals Ltd.

P.O.Box 1428, Haifa 3101302,

Industrial area Kiryat Ata

Deshanim@icl-group.com

Israel.

- Further information obtainable from:

Safety Department:

Tel: +972-4-8468407/406 Fax number: +972-4-8468360

- 1.4 Emergency telephone number:

Tel: +972-4-8468222, +972-4-8468229

Fax: +972-4-8468110 Tel: +972-4-8468178/179 Fax number: +972-4-8468296

## 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



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- Hazard-determining components of labelling:

Nitric acid, ammonium calcium salt

- 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.

- Additional information:

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

- 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 of substances listed below with nonhazardous additions.

- Components:		
CAS: 7447-40-7 EINECS: 231-211-8	potassium chloride	25-50%
CAS: 7722-76-1 EINECS: 231-764-5 Reg.nr.: 01-2119488166-29	ammonium dihydrogenorthophosphate	2.5-10%
CAS: 15245-12-2 Reg.nr.: 01-2119493947-16	Nitric acid, ammonium calcium salt  Eye Dam. 1, H318  Acute Tox. 4, H302	10-25%
CAS: 14887-42-4 EINECS: 238-961-5 Reg.nr.: 01-2119510125-56	PeKacid  • Eye Irrit. 2, H319	2.5-9%
CAS: 57-13-6 EINECS: 200-315-5 Reg.nr.: 01-2119463277-33	urea	25-50%

-SVHC None

- Additional information: For the wording of the listed hazard phrases refer to section 16.

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### SECTION 4: First aid measures

- 4.1 Description of first aid measures
- General information:

Do not leave affected persons unattended.

Take affected persons out into the fresh air.

- 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 eve contact:

Rinse opened eye for at least 15 minutes under running water.

If eye irritation persists, consult a specialist.

- After swallowing:

Rinse out mouth and then drink plenty of water.

Call a doctor immediately.

Do not induce vomiting.

Never give an unconscious person anything to drink.

- 4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye damage.

Harmful if swallowed.

Breathing in mists or aerosols may produce respiratory irritation.

-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:

Use fire extinguishing methods suitable to surrounding conditions.

CO<sub>□</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- 5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Nitrogen oxides (NOx)

Toxic metal compounds (K2O)

Chlorine (Cl□)

Hydrogen chloride (HCl)

Phosphorous oxides (POx)

Carbon oxides (CO, CO2)

Ammonia

- 5.3 Advice for firefighters
- Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

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**Boots** 

- 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 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.

Shovel or sweep up. Do not create a powder cloud by using a brush or compressed air.

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

Avoid contact with the eyes and skin.

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

- Information about fire and explosion protection: Keep ignition sources away Do not smoke.
- 7.2 Conditions for safe storage, including any incompatibilities
- Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Store in a cool, dry, well ventilated place in tightly closed receptacles.

Protect from heat and direct sunlight

Protect from humidity and water.

## - Information about storage in one common storage facility:

Keep away from food, drink and animal feeding stuff.

Store away from Metallic powders ,and Sulfur. Sawdust , Oil and Fats

Do not store together with combustible materials.

Store away from reducing agents.

Keep substancee away from: oxidizing agents, (strong) acids, (strong) bases.

Store away from nitrites, inorganic chlorides, chlorites and perchlorates.

Store away from water.

- Further information about storage conditions: Partly used bags should be closed well.

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-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:		
57-13-6 urea	٦	
WEEL (USA) 10 mg/m <sup>3</sup>		

- **DNELs** For Ingredients:

- For worke	- For workers:			
7447-40-7	7447-40-7 potassium chloride			
Dermal	DNEL: Long-term-systemic effects(W)	303 mg/kg bw/day (())		
	DNEL: Short-term-systemic effect(W)	910 mg/kg bw/day (())		
Inhalative	DNEL: Long-term-systemic effect(W)	1064 mg/m³ (())		
	DNEL: Short-term-systemic effect(W)	5320 mg/m³ (())		
57-13-6 ui	rea			
Dermal	DNEL: Short-term-systemic effect(W)	580 mg/kg bw/day (())		
Inhalative	DNEL: Short-term-systemic effect(W)	292 mg/m³ (())		
15245-12-	2 Nitric acid, ammonium calcium salt			
Dermal	DNEL: Long-term-systemic effects(W)	13.9 mg/kg bw/day (())		
Inhalative	DNEL: Long-term-systemic effect(W)	24.5 mg/m³ (())		
7722-76-1	7722-76-1 ammonium dihydrogenorthophosphate			
Dermal	DNEL: Long-term-systemic effects(W)	34.7 mg/kg bw/day (())		
	DNEL: Long-term-systemic effect(W)	6.1 mg/m³ (())		
14887-42-	4 PeKacid			
Inhalative	DNEL: Long-term-systemic effect(W)	4.07 mg/m³ (())		
- For general population:				
7447-40-7	7447-40-7 potassium chloride			
Oral	DNEL: Long-term-systemic effect(P)	91 mg/kg bw/day (())		
	DNEL: Short-term-systemic effect(P)	455 mg/kg bw/day (())		
Dermal	DNEL: Long-term-systemic effect(P)	182 mg/kg bw/day (())		
	DNEL: Short-term-systemic effect(P)	910 mg/kg bw/day (())		
Inhalative	DNEL: Long-term-systemic effect(P)	273 mg/m³ (())		
	DNEL: Short-term-systemic effect(P)	1365 mg/m³ (())		
57-13-6 ui	rea			
Oral	DNEL: Short-term-systemic effect(P)	42 mg/kg bw/day (())		

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Dermal	DNEL: Short-term-syste	` '	2 C , (0)
Inhalative DNEL: Short-term-systemic effect(P)			
15245-12-	2 Nitric acid, ammoniu		
Oral	DNEL: Long-term-syste	` /	C C . (())
Dermal	DNEL: Long-term-syste	` ′	2 2
	DNEL: Long-term-syste	` ′	
7722-76-1	ammonium dihydroger		
Oral	DNEL: Long-term-syste	mic effect(P)	2.1 mg/kg bw/day (())
Dermal	DNEL: Long-term-syste	mic effect(P)	20.8 mg/kg bw/day (())
Inhalative	DNEL: Long-term-syste	mic effect(P)	1.8 mg/m³ (())
14887-42-	4 PeKacid		
Inhalative	DNEL: Long-term-syste	mic effect(P)	3.04 mg/m³ (())
PNECs			
57-13-6 ui	·ea		
PNEC Aqua (freshwater): 0.047 mg/l (		0.047 mg/l ((	
PNEC aqua (marine water): 0.047 mg/l (0		0.047 mg/l ((	))
15245-12-	2 Nitric acid, ammoniu	m calcium sal	lt
PNEC Aqua (freshwater): 0.45 mg/l (()		0.45 mg/l (())	
PNEC aqua (marine water): 0.045 mg/		0.045 mg/l ((	))
PNEC aqu	a (intermittent releases):	4.5 mg/l (())	
7722-76-1	ammonium dihydroger	orthophosph	nate
PNEC Aqu	ıa (freshwater):	1.7 mg/l (())	
PNEC aqua (marine water): 0.17 mg/l (		0.17 mg/l (())	
PNEC aqua (intermittent releases): 17 mg/l (())			
14887-42-4 PeKacid			
PNEC Aqua (freshwater): 0.05 mg/l (())		0.05 mg/l (())	
PNEC aqua (marine water): 0.005 mg/l ((		0.005 mg/l ((	))
PNEC aqu	a (intermittent releases):	0.5 mg/l (())	
PNEC STP: 50 mg/l (())		50 m ~/1 (())	

### - 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:

Do not inhale dust / smoke / mist.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

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

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Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

Do not eat, drink, smoke or sniff while working.

- Respiratory protection:



Filter P2

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

### - Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.



Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

### - 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Butyl rubber, BR

Neoprene gloves

Nitrile rubber, NBR

Fluorocarbon rubber (Viton)

Chloroprene rubber, CR

Natural rubber, NR

## - 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)

- Not suitable are gloves made of the following materials: Leather gloves
- Eye protection:

Safety glasses



Tightly sealed goggles

### - Body protection:

Protective work clothing

**Boots** 

### - Limitation and supervision of exposure into the environment

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

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- Risk management measures

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

0.1 Information on basis abusing and	shamical proparties
9.1 Information on basic physical and c General Information	nemical properties
Appearance:	
Form:	Crystalline powder
Colour:	Red
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value (10 g/l) at 25 °C:	3.1
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range	: Undetermined.
Flash point:	Not applicable.
Flammability (solid, gas):	Product is not flammable.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not applicable.
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
water:	Soluble.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.

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- Solvent content: Organic solvents:	0.0 %	
Solids content:	100.0 %	
- 9.2 Other information	No further relevant information available.	

## SECTION 10: Stability and reactivity

- -10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Reacts violently with BrF3 and sulfuric acid at 600°C

- 10.4 Conditions to avoid

To avoid decomposition do not overheat.

Keep ignition sources away - Do not smoke.

Protect from moisture.

- 10.5 Incompatible materials:

Avoid contamination with combustible or flammable materials, strong acids,

strong bases, strong oxidizing agents, reducing agents,

Alkalis

Metallic powders, Sulfur, Sawdust, Oil, Fats

Nitrites, inorganic chlorides, chlorites and perchlorates

- 10.6 Hazardous decomposition products:

Formation of toxic gases is possible during heating or in case of fire.

Nitrogen oxides (NOx)

Phosphorus oxides (e.g. P2O5)

Toxic metal compounds (K2O)

Carbon oxides

Hydrogen chloride (HCl)

Chlorine

Ammonia

## 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 2600 mg/kg (rat)

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57-13-6	57-13-6 urea		
Oral	LD50	8471 mg/kg (rat)	
15245-1	15245-12-2 Nitric acid, ammonium calcium salt		
Oral	LD50	>300 mg/kg (rat)	
7722-76	7722-76-1 ammonium dihydrogenorthophosphate		
Oral	LD50	>2,000 mg/kg (rat) (OECD 425)	
Dermal	LD50	>5,000 mg/kg (rat) ((OECD 402))	
14887-4	14887-42-4 PeKacid		
Oral	LD50	>2,000 mg/kg (rat) ((OECD 425))	
Dermal	LD50	>2,000 mg/kg (rat) ((OECD 402))	
ъ.			

- Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation

Causes serious eye damage.

- by Ingestion: Harmful if swallowed.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Additional toxicological information:
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- -STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

- 12.1 Toxicity		
- Aquatic toxicit	y:	
15245-12-2 Ni	ric acid, ammonium calcium salt	
LC50/48h	447 mg/l (Fish)	
LC50/72h	>100 mg/l (algae)	
EC50/48h	>100 mg/l (daphnia)	
7447-40-7 pota	ssium chloride	
LC50/96h	880 mg/l (Fathead minnow fish)	
EC50/120h	1,337 mg/l (algae)	
EC50/21d	130 mg/l (daphnia magna)	
EC50/48h	660 mg/l (daphnia magna)	

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7722-76-1 ammor	7722-76-1 ammonium dihydrogenorthophosphate		
LC50/96h	LC50/96h >85.9 mg/l (fish Oncorhynchus mykiss)		
14887-42-4 PeKa	14887-42-4 PeKacid		
EC50/48h (static)	EC50/48h (static) >100 mg/l (daphnia magna)		
57-13-6 urea	57-13-6 urea		
LC50/96h	LC50/96h >9,100 mg/l (Barillius barna)		
EC50/24hr	>10,000 mg/l (daphnia magna)		

- 12.2 Persistence and degradability Inorganic 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).
- Additional ecological information:
- 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**: 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 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

- 14.1 UN-Number		
- DOT, ADR, ADN, IMDG, IATA	None	
- 14.2 UN proper shipping name - ADR, ADN, IMDG, IATA	None None	
- 14.3 Transport hazard class(es)	None	
- DOT, ADR, ADN, IMDG, IATA - Class	None	
- 14.4 Packing group - ADR, ADN, IMDG, IATA	None	

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- UN "Model Regulation":

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- 14.5 Environmental hazards:	Not applicable.	
- 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.	

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

GHS label elements

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

- Hazard pictograms



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

Nitric acid, ammonium calcium salt

- 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.

- Directive 2012/18/EU
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 65

# **SECTION 16: Other information**

- Contact:

Regulatory Affairs Department Tel: +972-4-8468255 msdsfc@icl-group.com

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#### - Abbreviations and acronyms:

NOAEL: No Observable Adverse Effect Level

TLV: Threshold Limit Value TWA: Time Weighted Average

OSHA: Occupational Safety and Health Administration

OECD: Organization for Economic C-operation and Development

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 relatif au transport international 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 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

Acute Tox. 4: Acute toxicity – Category 4

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

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

- Reason for revision: Periodical review

#### - Disclaimer

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

All information, recommendations and suggestions herein concerning our products are based upon tests and data believed to be reliable, however, it is the users responsibility to determine the safety, toxicity and suitability for his own use of the product described herein.

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Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or governmental regulation.

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