Safety Data Sheet
acc. to OSHA and ANSI

Printing date 26/02/2017 version 1 Reviewed on 26/02/2017

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

· **Product identifier**

· **Trade name: P/K 0-45-45**

· **Application of the substance / the mixture** Fertilizer

· **Manufacturer/Supplier:**

Manufacturer:
Rotem Amfert Negev Ltd.
ICl Specialty Fertilizers
Shalit House
Shezar 3 St.
P.O.Box 125
Beer-Sheva, 84101
ISRAEL
Tel: + 972-8-6598877
Fax: + 972-8-6598987
E-mail: iclsf@iclfertilizers.com

Supplier:
ICL Premium Fertilizers NA
622 Emerson Rd
Suite 500
St. Louis, MO 63141,
USA
Tel: 1-877-ROTEM-US
Fax: (314)983-7611
E-mail: ariana@icl-ip.com

· **Information department:**
Toll Free : 1-800-244-6169
E-mail : novapeak@iclfertilizers.com

· **Emergency telephone number:** CHEMTREC : 1-800-424-9300 (24-hour emergency phone number)

2 Hazards identification

· **Classification of the substance or mixture**
The product is not classified according to the Globally Harmonized System (GHS).

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.

· **Information concerning particular hazards for human and environment:** Not applicable

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**

Health = 0
Fire = 0
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 1
Fire = 0
Reactivity = 0

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· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information

· **Chemical characterization: Mixtures**
· **Description:** Mixture: consisting of the following components.

· **Components:**		
7778-77-0	potassium dihydrogenorthophosphate	>40%
7758-11-4	dipotassium hydrogenorthophosphate	>40%

· **SVHC** None

4 First aid measures

· **General information:** No special measures required.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Generally the product does not irritate the skin.
Rinse with warm water.
If skin irritation continues, consult a doctor.
· **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **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.
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

· **Suitable extinguishing agents:**
The product is not flammable.
Use fire fighting measures that suit the environment.
· **For safety reasons unsuitable extinguishing agents:** None
· **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Phosphorus oxides (e.g. P2O5)
· **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.

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6 Accidental release

· **Personal precautions, protective equipment and emergency procedures**
Avoid formation of dust.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective clothing.
· **Environmental precautions:** Do not allow product to reach sewage system or any water course.
· **Methods and material for containment and cleaning up:** Pick up mechanically.
· **Reference to other sections** See Section 13 for disposal information.

7 Handling and storage

· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
· **Information about protection against explosions and fires:**
The product is not flammable.
No special measures required.
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Store in dry conditions.
Protect from heat and direct sunlight.
· **Information about storage in one common storage facility:**
Do not store together with alkalis (caustic solutions).
Do not store together with oxidizing and acidic materials.
· **Further information about storage conditions:**
Protect from humidity and water.
This product is hygroscopic.
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:**
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)]
· **Components with limit values that require monitoring at the workplace:** Not required.
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Do not eat or drink while working.
· **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.
· **Protection of hands:**

Protective gloves

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· **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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:** Safety glasses
· **Body protection:** Light weight protective 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.

9 Physical and chemical properties

· **Appearance:**	
Form:	Crystalline powder
Color:	White
· **Odor:**	Odorless
· **pH-value (10 g/l) at 20 °C (68 °F):**	6.9
· **Change in condition**	
Melting point/Melting range:	>219 °C (>426 °F)
Boiling point/Boiling range:	Not applicable
· **Flash point:**	Not applicable. This product is inorganic.
· **Flammability (solid, gaseous):**	Product is not flammable. (based on molecular structure)
· **Ignition temperature:**	
Decomposition temperature:	>254 °C (>489 °F)
· **Danger of explosion:**	Product does not present an explosion hazard. (based on molecular structure)
· **Explosion limits:**	
Oxidizing properties	None The product does not contain any substances associated with oxidising properties.
· **Vapor pressure at 20 °C (68 °F):**	9.5x10-9 hPa (7.1x10-9 mm Hg)
· **Density:**	Not determined
· **Relative density at 20 °C (68 °F)**	2.399 g/cm³ (20.02 lbs/gal)
· **Solubility in / Miscibility with**	
Water at 20 °C (68 °F):	705 g/l
· **Partition coefficient (n-octanol/water):**	Not applicable This product is inorganic chemical.
· **Viscosity:**	Not applicable This product is solid. Viscosity is only relevant to liquids.
· **Solvent content:**	
Organic solvents:	0 %

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· **Other information** No further relevant information available.

10 Stability and reactivity

· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** To avoid thermal decomposition do not overheat.
· **Incompatible materials:**
Mineral acids
Alkalis
Water
Oxidizing agents
· **Hazardous decomposition products:**
Formation of toxic gases is possible during heating or in case of fire.
Phosphorus oxides (e.g. P2O5)
· **Additional information:** This product is hygroscopic.

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
7778-77-0 potassium dihydrogenorthophosphate		
Oral	LD50	>2000 mg/kg (rat)

· **Primary irritant effect:**

· **Effect**	**Species**	**Method**
7778-77-0 potassium dihydrogenorthophosphate		
Irritation of skin	OECD 404	not irritating (rabbit)
Irritation of eyes	OECD 405, EC B.5	not irritating (rabbit)

· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
The substance is not subject to classification.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.
· **NTP (National Toxicology Program)**
None of the ingredients is listed.

· **Mutagenicity:**
None
Sodium and potassium phosphates are routinely used in the nutrient broths that support bacterial colonies in the laboratory and as such bacteria are constantly exposed to these inorganic phosphates. The constant exposure of bacteria to these materials suggests that they pose no inherent risk of genotoxicity.
· **Toxicity for reproduction:**
no classification is necessary

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

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:**
Inorganic phosphates are not considered to be toxic to aquatic species.
No reliable study with this product is present.
This study is conducted on an analogous substance. (read-across)

66922-99-4 Tripotassium trihydrogen diphosphate dihydrate	
EC50/48 h (static)	>100 mg/L (Daphnia magna) (OECD 202, freshwater)
EC50/72 h (static)	>100 mg/L (algae) (OECD 201, freshwater) NOEL: 100 mg/L
LC50/96 h	>100 mg/L (fish Oncorhynchus mykiss) (OECD 203, freshwater, semi-static)

· **Persistence and degradability**
The substance is inorganic; therefore no biodegradation tests are applicable.
This product dissociates into potassium and phosphate ions, which cannot be further degraded.
· **Bioaccumulative potential**
Does not accumulate in organisms
This substance is highly water soluble and dissociating.
This product dissociates into potassium and phosphate ions, which are ubiquitous in the environment.
· **Mobility in soil** *This substance is highly water soluble and dissociating.*
· **Other information:**
Product should not get in high quantities into waste water because it may act as a plant nutrient and cause eutrophication.
· **Behavior in sewage processing plants:**

· **Type of test**	**Effective concentration**	**Method**	**Assessment**
7758-11-4 dipotassium hydrogenorthophosphate			
EC50/3 h	>1000 mg/L (activated sludge) (OECD 209, EPA) NOEC (3 h): 1000 mg/L		

· **Remark:** *Inorganic phosphates are not considered to be toxic to sewage treatment plant microorganisms.*
· **Results of PBT and vPvB assessment**
· **PBT:** *Not applicable.*
· **vPvB:** *Not applicable.*
· **Other adverse effects** *No further relevant information available.*

13 Disposal considerations

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

· **Uncleaned packagings:**
· **Recommendation:**
Packaging can be reused or recycled after cleaning.

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Disposal must be made in accordance with Local Authority requirements.

14 Transport information

· **UN-Number**	
· **DOT, ADR, IMDG, IATA**	Void
· **UN proper shipping name**	
· **DOT, ADR, IMDG, IATA**	Not applicable
· **Transport hazard class(es)**	
· **DOT, ADR, IMDG, IATA**	Not applicable
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	Void
· **Environmental hazards:**	
· **Marine pollutant:**	No
· **Special precautions for user**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	None
· **Transport/Additional information:**	Not dangerous according to the above specifications.

15 Regulatory information

· **Sara**

· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**
None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

Proposition 65

· **Chemicals known to cause cancer:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **GHS label elements** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void
· **Registration status (Chemical Inventories listing) :**
Europe (EINECS) : All components of the mixture are listed.
New Zealand (NZIoC) : All components of the mixture are listed.
Australia (AICS) : All components of the mixture are listed.
Japan (ENCS) : All components of the mixture are listed.
Korea (KECI) : All components of the mixture are listed.
Philippines (PICCS) : All components of the mixture are listed.
China (IECSC) : All components of the mixture are listed

16 Other information

· **Department issuing MSDS:** 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
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
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