Safety data sheet

according to 1907/2006/EC, Article 31

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

· **1.1 Product identifier**

· **Trade name: Nova Peak**

· **Synonyms**
Potassium dihydrogenorthophosphate, Phosphoric acid, Monopotassium salt, Mono potassium phosphate,MKP

· **CAS Number:**
7778-77-0

· **EC number:**
231-913-4

· **Registration number** 01-2119490224-41-0015

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Relevant identified uses:
Fertiliser
Detergents
Water treatment
Food additives
Feed additives
Fire retarding agent
Processing aid/ Additive
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 Plants,
M.P. Arava 8680600
ISRAEL
Telefon: +972-8-6598877
Fax: +972-8-6598987
E-mail: msdsinfo@icl-group.com

Only Representative/Supplier:
ICL Italy S.r.l. Milano
Via Monteverdi 11, 20131, Milano,
Italy
Telefon: +39-02-20487221
Fax: +39-02-2049449
E-mail: info@icl-italy.it

· **1.4 Emergency telephone number:**
In Europe call: +31-20-5815100 (24 hours a day, 365 days a year)
In Israel call: +972-8-6504777 (24 hours a day, 365 days a year)
+972-8-6504915

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008** The substance is not classified according to the CLP regulation.

· **2.2 Label elements**

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

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **2.3 Other hazards**
The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

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

SECTION 3: Composition/information on ingredients

· **3 Substances**
· **CAS No. Description**
7778-77-0 potassium dihydrogenorthophosphate
· **EC number:** 231-913-4
· **SVHC** None

SECTION 4: First aid measures

· **4.1 Description of 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.
· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **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:**
The product is not flammable.
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**
In case of fire, the following can be released:
Phosphorus oxides (e.g. P2O5)
· **5.3 Advice for firefighters**
· **Protective equipment:**
Wear fully protective suit.
Mount 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.

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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.*
· **6.4 Reference to other sections** *See Section 13 for disposal information.*

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
· **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 dry conditions.
Protect from heat and direct sunlight.
· **Information about storage in one common storage facility:**
Store away from oxidising agents.
Do not store together with alkalis (caustic solutions).
· **Further information about storage conditions:**
Protect from humidity and water.
Store in a cool place.
· **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: 4.07 mg/m³
For general population:
Long-term-systemic effects (inhalation) DNEL: 3.04 mg/m³
· **PNECs**
PNEC aqua (freshwater): 0.05 mg/L
PNEC aqua (marine water): 0.005 mg/L
PNEC aqua (intermittent releases): 0.5 mg/L
PNEC STP: 50 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.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not eat or drink while working.

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· **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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed. (EN 374)
· **Eye protection:**



Safety glasses

· **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 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
Colour:	White
· **Odour:**	Odourless
· **pH-value (208 g/l) at 20 °C:**	4,2-4,5
· **Change in condition**	
Melting point/freezing point:	252,6 °C
Initial boiling point and boiling range:	>450 °C
· **Flash point:**	Not applicable. This product is inorganic substance.
· **Flammability (solid, gas):**	Product is not flammable. (based on molecular structure)
· **Ignition temperature:**	Not applicable

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· **Decomposition temperature:**	>450 °C Thermal decomposition on losing water.
· **Auto-ignition temperature:**	Product is not selfigniting. (based on molecular structure)
· **Explosive properties:**	Product does not present an explosion hazard. (based on molecular structure)
· **Explosion limits:**	None
· **Oxidising properties**	None The substance does not contain any groups associated with oxidising properties.
· **Vapour pressure at 25 °C:**	4,5x10-15 Pa
· **Density at 20 °C:**	2.34 g/cm³
· **Bulk density at 20 °C:**	1150-1200 kg/m³
· **Solubility in / Miscibility with water at 20 °C:**	208 g/l
· **Partition 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).
· **10.2 Chemical stability** No decomposition if used and stored according to specifications.
· **10.3 Possibility of hazardous reactions** Reacts with oxidising agents.
· **10.4 Conditions to avoid**
Water
To avoid thermal decomposition do not overheat.
· **10.5 Incompatible materials:**
Alkalis
Oxidizing agents
· **10.6 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.

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:**		
14887-42-4 Potassium pentahydrogen bis(phosphate)		
Dermal	LD50	>2000 mg/kg (rabbit) (OECD 402)

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7558-80-7 sodium dihydrogenorthophosphate		
Inhalative	LC50/4 h	>0.83 mg/l (rat) (OECD 403) the maximum attainable concentration
7778-77-0 potassium dihydrogenorthophosphate		
Oral	LD50	>2000 mg/kg (rat)

· **Primary irritant effect:**

· Effect Species Method		
7558-80-7 sodium dihydrogenorthophosphate		
Sensitisation	OECD 429, EC B.42	none (mouse)
7778-77-0 potassium dihydrogenorthophosphate		
Irritation of skin	OECD 404	not irritating (rabbit)
Irritation of eyes	OECD 405, EC B.5	not irritating (rabbit)

· **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
· **Toxicokinetics, metabolism and distribution**
This product dissociates into potassium, magnesium, and phosphate ions, which are normal body and nutritional components.
This substance is not considered to have bioaccumulative potential as it is highly soluble in water and phosphate levels in the body are regulated via homeostasis.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
· **Germ cell 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.
· **Carcinogenicity:**
no data available
(no carcinogenicity study needs to be performed as this substance is not genotoxic)
NTP (National Toxicology Program) : Substance is not listed
IARC (International Agency for Research on Cancer) : Substance is not listed
· **Toxicity for reproduction:**
no classification is necessary
7758-11-4 dipotassium hydrogenorthophosphate, OECD 422 :
developmental toxicity: NOAEL> 1000 mg/kg bw/day; rat, oral
7778-77-0 potassium dihydrogenorthophosphate:
developmental / maternal toxicity: NOAEL> 282 mg/kg bw/day; rat, oral
developmental / maternal toxicity: NOAEL> 320 mg/kg bw/day; mouse, oral
· **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.

7785-88-8 Sodium aluminum phosphate		
Oral	NOAEL	>323 mg/kg bw/day (dog) (90 days, subchronic)

· **Aspiration hazard** Based on available data, the classification criteria are not met.

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SECTION 12: Ecological information

· **12.1 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)

6922-99-4 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)
LC50/96 h	>100 mg/L (fish Oncorhynchus mykiss) (OECD 203, freshwater)

· **12.2 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.
· **12.3 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.
· **12.4 Mobility in soil**
This substance is highly water soluble and dissociating.
Low potential for adsorption (based on substance properties).
· **Other information:**
The product should not get in high quantities into waste water because it may act as a plant nutrient and cause eutrophication.
· **Ecotoxical effects:**
· **Behaviour 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) NOEC (3 h): 1000 mg/L

· **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:**
Generally not hazardous for water
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:** 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.

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Can be reused without reprocessing.
Can be disposed of with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Disposal must be made in accordance with Local Authority requirements.

· **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**
· **DOT, ADR, ADN, IMDG, IATA** Void
· **14.2 UN proper shipping name**
· **DOT, ADR, ADN, IMDG, IATA** Void
· **14.3 Transport hazard class(es)**

· **DOT, ADR, ADN, IMDG, IATA**
· **Class** Void
· **14.4 Packing group**
· **DOT, ADR, IMDG, IATA** Void
· **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** None

· **Transport/Additional information:** Not dangerous according to the above specifications.
· **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**
Directive 2000/60 EC (phosphates)
· **Labelling according to Regulation (EC) No 1272/2008** None
· **Hazard pictograms** None
· **Signal word** None
· **Hazard statements** None

· **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) :**
New Zealand (NZIoC) : listed
Taiwan (TCSI): listed
Thailand (TECI) : listed
Canada (DSL) : listed
United States (TSCA) : listed
Australia (AICS) : listed

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Japan (ENCS) : listed
Korea (KECI) : listed
Philippines (PICCS) : listed
China (IECSC) : listed

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

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SECTION 16: Other information

· **Department issuing SDS:**
HERA Division
telephone: +/972-8-6297835
telefax: +/972-8-6297832
www.icl-ip.com
e-mail:msdsinfo@icl-group.com

· **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
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**
The sections where alterations took place are marked with an asterisk in the left border.

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