



**Haifa MKP™  
MKP**

Date of compilation: 2/17/2017

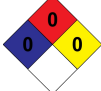
Revised: 1/7/2020

Version: 1.1 (Replaced 1)

**SECTION 1: IDENTIFICATION**

- 1.1 GHS Product identifier:** Haifa MKP™  
MKP  
Potassium dihydrogenorthophosphate  
CAS: 7778-77-0  
Synonyms: Mono Potassium Phosphate, Potassium dihydrogen phosphate
- 1.2 Recommended use of the chemical and restrictions on use:**  
Relevant uses: Fertilizer  
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**  
Haifa Chemicals South Ltd.  
Matam-Haifa  
3190500 Haifae - Israel  
Phone.: +972-74-7373737  
Regulatory@haifa-group.com  
<https://www.haifa-group.com>  
  
**USA representative:**  
Haifa North America  
307 Cranes Roost Blvd  
Suite 2030, Altamonte Springs  
Florida 32701  
Tel: +1-800- 649- 4944  
Fax: +1-(407) 862 6400  
NorthAmerica@haifa-group.com
- 1.4 Emergency phone number:** U.S Poison Control: 1-800-222-1222

**SECTION 2: HAZARD(S) IDENTIFICATION**

- 2.1 Classification of the substance or mixture:**  
**NFPA:**  
Health Hazards: 0  
Flammability Hazards: 0  
Instability Hazards: 0  
Special Hazards: Non-applicable  
**29 CFR 1910.1200:**  
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
- 2.2 Label elements:**  
**NFPA:**  
  
**29 CFR 1910.1200:**  
None
- 2.3 Hazards not otherwise classified (HNOC):**  
Non-applicable

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

- 3.1 Substances:**  
**Chemical description:** Inorganic substance  
**Components:**



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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

| Identification | Chemical name/Classification       | Concentration |
|----------------|------------------------------------|---------------|
| CAS: 7778-77-0 | Potassium dihydrogenorthophosphate | 100 %         |

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

**3.2 Mixtures:**

Non-applicable

**SECTION 4: FIRST-AID MEASURES**

**4.1 Description of necessary measures:**

Consult a doctor in case of discomfort with this Safety data Sheet.

**By inhalation:**

In case of symptoms, move the person affected into fresh air.

**By skin contact:**

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety data Sheet

**By eye contact:**

Rinse with water until the product has been eliminated. In case of problems, consult a doctor with the SDS of this product.

**By ingestion/aspiration:**

In case of consumption in large quantities, it is recommended to seek medical assistance.

**4.2 Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3 Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

**SECTION 5: FIRE-FIGHTING MEASURES**

**5.1 Suitable (and unsuitable) extinguishing media:**

Product is non-flammable, low risk of fire by the inflammability characteristics of the product in normal conditions of storage, manipulation and use. In the case of the existence of sustained combustion as a result of improper manipulation, storage or use any type of extinguishing agent can be used (ABC Powder, water,...)

**5.2 Specific hazards arising from the chemical:**

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

**5.3 Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:**

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

**6.2 Environmental precautions:**

- CONTINUED ON NEXT PAGE -



## SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

### 6.3 Methods and materials for containment and cleaning up:

It is recommended:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

### 6.4 Reference to other sections:

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

#### A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

#### B.- Technical recommendations for the prevention of fires and explosions

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

#### C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

#### D.- Technical recommendations to prevent environmental risks

It is not necessary to take special measures to prevent environmental risks. For more information see subsection 6.2

### 7.2 Conditions for safe storage, including any incompatibilities:

#### A.- Technical measures for storage

Maximum Temp.: 95 °F

#### B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

### 7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

Nuisance dust: Inhalable dust 10 mg/m<sup>3</sup> // Respirable dust 4 mg/m<sup>3</sup>

### 8.2 Appropriate engineering controls:

#### A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

#### B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

#### C.- Specific protection for the hands



## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Pictogram                                                                                                      | PPE                                   | Remarks                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Mandatory hand protection | Protective gloves against minor risks | Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR) |

### D.- Ocular and facial protection

| Pictogram                                                                                                      | PPE                                           | Remarks                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Mandatory face protection | Panoramic glasses against splash/projections. | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR) |

### E.- Bodily protection

| Pictogram | PPE                  | Remarks                                       |
|-----------|----------------------|-----------------------------------------------|
|           | Work clothing        | Replace before any evidence of deterioration. |
|           | Anti-slip work shoes | Replace before any evidence of deterioration. |

### F.- Additional emergency measures

It is not necessary to take additional emergency measures.

#### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

#### National volatile organic compound emission standards (40 CFR Part 59):

V.O.C. (Subpart C - Consumer): 0 % weight

V.O.C. (Coatings) at 68 °F: 0 kg/m³ (0 g/L)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

#### Appearance:

|                          |                  |
|--------------------------|------------------|
| Physical state at 68 °F: | Solid            |
| Appearance:              | Not available    |
| Color:                   | Not available    |
| Odor:                    | Not available    |
| Odour threshold:         | Non-applicable * |

#### Volatility:

|                                        |                  |
|----------------------------------------|------------------|
| Boiling point at atmospheric pressure: | Non-applicable * |
| Vapour pressure at 68 °F:              | Non-applicable * |
| Vapour pressure at 122 °F:             | Non-applicable * |
| Evaporation rate at 68 °F:             | Non-applicable * |

#### Product description:

|                   |            |
|-------------------|------------|
| Density at 68 °F: | 2300 kg/m³ |
|-------------------|------------|

\*Not relevant due to the nature of the product, not providing information property of its hazards.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

|                                              |                  |
|----------------------------------------------|------------------|
| Relative density at 68 °F:                   | 2.3              |
| Dynamic viscosity at 68 °F:                  | Non-applicable * |
| Kinematic viscosity at 68 °F:                | Non-applicable * |
| Kinematic viscosity at 104 °F:               | Non-applicable * |
| Concentration:                               | Non-applicable * |
| pH:                                          | Non-applicable * |
| Vapour density at 68 °F:                     | Non-applicable * |
| Partition coefficient n-octanol/water 68 °F: | Non-applicable * |
| Solubility in water at 68 °F:                | Non-applicable * |
| Solubility properties:                       | Non-applicable * |
| Decomposition temperature:                   | Non-applicable * |
| Melting point/freezing point:                | 487 °F           |
| Explosive properties:                        | Non-applicable * |
| Oxidising properties:                        | Non-applicable * |
| <b>Flammability:</b>                         |                  |
| Flash Point:                                 | Non-applicable   |
| Flammability (solid, gas):                   | Non-applicable * |
| Autoignition temperature:                    | Non-applicable * |
| Lower flammability limit:                    | Non-applicable * |
| Upper flammability limit:                    | Non-applicable * |
| <b>Explosive:</b>                            |                  |
| Lower explosive limit:                       | Non-applicable * |
| Upper explosive limit:                       | Non-applicable * |

**9.2 Other information:**

|                           |                  |
|---------------------------|------------------|
| Surface tension at 68 °F: | Non-applicable * |
| Refraction index:         | Non-applicable * |

\*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

**10.2 Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight       | Humidity       |
|--------------------|------------------|-------------------------|----------------|----------------|
| Not applicable     | Not applicable   | Not applicable          | Not applicable | Not applicable |

**10.5 Incompatible materials:**

| Acids              | Water          | Oxidising materials | Combustible materials | Others                        |
|--------------------|----------------|---------------------|-----------------------|-------------------------------|
| Avoid strong acids | Not applicable | Not applicable      | Not applicable        | Avoid alkalis or strong bases |

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects:

LD50 oral > 5000 mg/kg (rat)

#### Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

#### A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met
- Corrosivity/Irritability: Based on available data, the classification criteria are not met

#### B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met
- Corrosivity/Irritability: Based on available data, the classification criteria are not met

#### C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met
- Contact with the eyes: Based on available data, the classification criteria are not met

#### D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met  
IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met
- Reproductive toxicity: Based on available data, the classification criteria are not met

#### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met
- Cutaneous: Based on available data, the classification criteria are not met

#### F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met

#### G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### H- Aspiration hazard:

Based on available data, the classification criteria are not met

#### Other information:

Non-applicable

#### Specific toxicology information on the substances:

| Identification                                       | Acute toxicity  |             | Genus |
|------------------------------------------------------|-----------------|-------------|-------|
| Potassium dihydrogenorthophosphate<br>CAS: 7778-77-0 | LD50 oral       | >5000 mg/kg |       |
|                                                      | LD50 dermal     | >5000 mg/kg |       |
|                                                      | LC50 inhalation | >5 mg/L     |       |

## SECTION 12: ECOLOGICAL INFORMATION

Contains phosphates. Excessive discharge may cause eutrophication.

### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

Not available

### 12.2 Persistence and degradability:

Not available

### 12.3 Bioaccumulative potential:

Not available



## SECTION 12: ECOLOGICAL INFORMATION (continued)

### 12.4 Mobility in soil:

Not available

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods:

#### Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

#### Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

## SECTION 14: TRANSPORT INFORMATION

### Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

- |      |                                                                                                                                                                           |                |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 14.1 | UN number:                                                                                                                                                                | Non-applicable |
| 14.2 | UN proper shipping name:                                                                                                                                                  | Non-applicable |
| 14.3 | Transport hazard class(es):                                                                                                                                               | Non-applicable |
|      | Labels:                                                                                                                                                                   | Non-applicable |
| 14.4 | Packing group, if applicable:                                                                                                                                             | Non-applicable |
| 14.5 | Environmental hazard:                                                                                                                                                     | No             |
| 14.6 | <b>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</b> |                |
|      | Physico-Chemical properties:                                                                                                                                              | see section 9  |
| 14.7 | <b>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</b>                                                                                        | Non-applicable |

### Transport of dangerous goods by sea:

With regard to IMDG 38-16:

- |      |                                                                                                                                                                           |                |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 14.1 | UN number:                                                                                                                                                                | Non-applicable |
| 14.2 | UN proper shipping name:                                                                                                                                                  | Non-applicable |
| 14.3 | Transport hazard class(es):                                                                                                                                               | Non-applicable |
|      | Labels:                                                                                                                                                                   | Non-applicable |
| 14.4 | Packing group, if applicable:                                                                                                                                             | Non-applicable |
| 14.5 | Environmental hazard:                                                                                                                                                     | No             |
| 14.6 | <b>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</b> |                |
|      | Physico-Chemical properties:                                                                                                                                              | see section 9  |
| 14.7 | <b>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</b>                                                                                        | Non-applicable |

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:



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**SECTION 14: TRANSPORT INFORMATION (continued)**

- |                                                                                                                                                                                |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>14.1 UN number:</b>                                                                                                                                                         | Non-applicable |
| <b>14.2 UN proper shipping name:</b>                                                                                                                                           | Non-applicable |
| <b>14.3 Transport hazard class(es):</b>                                                                                                                                        | Non-applicable |
| Labels:                                                                                                                                                                        | Non-applicable |
| <b>14.4 Packing group, if applicable:</b>                                                                                                                                      | Non-applicable |
| <b>14.5 Environmental hazard:</b>                                                                                                                                              | No             |
| <b>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</b> |                |
| Physico-Chemical properties:                                                                                                                                                   | see section 9  |
| <b>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</b>                                                                                        | Non-applicable |

**SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations specific for the product in question:**

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable  
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable  
The Toxic Substances Control Act (TSCA) : Potassium dihydrogenorthophosphate  
Massachusetts RTK - Substance List: Non-applicable  
New Jersey Worker and Community Right-to-Know Act: Non-applicable  
New York RTK - Substance list: Non-applicable  
Pennsylvania Worker and Community Right-to-Know Law: Non-applicable  
CANADA-Domestic Substances List (DSL): Potassium dihydrogenorthophosphate  
CANADA-Non-Domestic Substances List (NDSL): Non-applicable  
NTP (National Toxicology Program): Non-applicable  
Minnesota - Hazardous substances ERTK: Non-applicable  
Rhode Island - Hazardous substances RTK: Non-applicable  
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable  
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

The Toxic Substances Control Act (TSCA)  
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

**SECTION 16: OTHER INFORMATION**

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**

Non-applicable

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**



**SECTION 16: OTHER INFORMATION (continued)**

IMDG: International maritime dangerous goods code  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
COD: Chemical Oxygen Demand  
BOD5: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
CL50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol-water partition coefficient  
Koc: Partition coefficient of organic carbon

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END OF SAFETY DATA SHEET