



**Multi-K™  
Multi-K**

Date of compilation: 11/30/2010

Revised: 9/11/2019

Version: 5.1 (Replaced 5)

## SECTION 1: IDENTIFICATION

- 1.1 GHS Product identifier:** Multi-K™  
Multi-K  
Potassium nitrate

CAS: 7757-79-1

Synonyms: Multi-K™ Classic, Multi-K™ GG, Multi-K™ Absolute, Multi-K™ pHast, Multi-K™ Recr, Multi-K™ Prills

- 1.2 Recommended use of the chemical and restrictions on use:**

Relevant uses: Fertilizer; catalyst for glass; oxidant; manufacture of rubber parts; coating for ceraminc. For professional user/industrial user only.

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 Haifa - 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: OX

**29 CFR 1910.1200:**

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Ox. Sol. 3: Combustible solids, Category 3, H272

- 2.2 Label elements:**

**NFPA:**



**29 CFR 1910.1200:**

Warning



**Hazard statements:**

Ox. Sol. 3: H272 - May intensify fire, oxidiser

**Precautionary statements:**



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## SECTION 2: HAZARD(S) IDENTIFICATION (continued)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P220: Keep away from combustible materials.

P280: Wear protective gloves, face protection, eye protection.

P370+P378: In case of fire: Use large quantities of water to extinguish the fire

### 2.3 Other hazards which do not result in classification:

Non-applicable

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances:

**Chemical description:** KHNO<sub>3</sub>

#### Components:

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: 7757-79-1	Potassium nitrate Ox. Sol. 3: H272 - Warning	100 %

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

### 3.2 Mixtures:

Non-applicable

## SECTION 4: FIRST-AID MEASURES

### 4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

#### By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

#### 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:

This product does not contain substances classified as hazardous for eye contact. Rinse eyes thoroughly for at least 15 minutes with lukewarm water, ensuring that the person affected does not rub or close their eyes.

#### By ingestion/aspiration:

In case of consumption, seek immediate medical assistance showing the SDS of this product.

### 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:

Use an extinguishing agent suitable for surrounding fire.

### 5.2 Specific hazards arising from the chemical:



## SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

### 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:

MAY INTENSIFY FIRE, OXIDISER. Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

### 6.2 Environmental precautions:

The characteristic of reactivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D003 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

### 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

AVOID ANY IGNITION SOURCE, as well as combustible and/or inflammable material. Devices and systems must comply with the essential safety and health requirements and, with the minimum requirements for improving the health and safety protection of workers. Consult epigraph 10 for conditions and materials that should be avoided.

#### 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 recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

### 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

Pictogram	PPE	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR)



D.- Ocular and facial protection

Pictogram	PPE	Remarks
 Mandatory face protection	Face shield	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
 Mandatory complete body protection	Disposable clothing for protection against chemical risks	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk	Replace boots at any sign of deterioration. Use foot protection in accordance with manufacturer's use limitations and OSHA standard 1910.136 (29CFR)

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

### 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/m<sup>3</sup> (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:	Crystalline
Color:	Colorless
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:	<1 Pa (<0 kPa)
Evaporation rate at 68 °F:	Non-applicable *

#### Product description:

Density at 68 °F:	>800 - 1200 kg/m <sup>3</sup>
Relative density at 68 °F:	2.11
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:	3 kg/m <sup>3</sup>
Partition coefficient n-octanol/water 68 °F:	Non-applicable *
Solubility in water at 68 °F:	200 kg/m <sup>3</sup>
Solubility properties:	Non-applicable *
Decomposition temperature:	>752 °F
Melting point/freezing point:	631 °F
Explosive properties:	Non-applicable *
Oxidising properties:	H272 May intensify fire, oxidiser

#### Flammability:

Flash Point:	Non-applicable
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	Non-applicable *
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

#### Explosive:

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:

- CONTINUED ON NEXT PAGE -



## SECTION 10: STABILITY AND REACTIVITY (continued)

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	Avoid direct impact	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.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

#### 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, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: 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.

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

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: 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.

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

- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: 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.

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

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.  
IARC: Non-applicable
- Mutagenicity: 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.
- Reproductive toxicity: 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.

#### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: 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.



## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

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

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.

### 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, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- 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, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

### Other information:

Non-applicable

### Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Potassium nitrate CAS: 7757-79-1	LD50 oral	3750 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	

## SECTION 12: ECOLOGICAL INFORMATION

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

Identification	Acute toxicity		Species	Genus
Potassium nitrate CAS: 7757-79-1	LC50	1378 mg/L (96 h)	Poecilia reticulada	Fish
	EC50	490 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		

### 12.2 Persistence and degradability:

Not available

### 12.3 Bioaccumulative potential:

Not available

### 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 recommend 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:



- |  |                   |
|--|-------------------|
| <b>14.1 UN number:</b>   | UN1486            |
| <b>14.2 UN proper shipping name:</b>   | POTASSIUM NITRATE |
| <b>14.3 Transport hazard class(es):</b>  | 5.1               |
| Labels:  | 5.1               |
| <b>14.4 Packing group, if applicable:</b>  | III               |
| <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    |

### Transport of dangerous goods by sea:

With regard to IMDG 38-16:



- |  |                   |
|--|-------------------|
| <b>14.1 UN number:</b>   | UN1486            |
| <b>14.2 UN proper shipping name:</b>   | POTASSIUM NITRATE |
| <b>14.3 Transport hazard class(es):</b>  | 5.1               |
| Labels:  | 5.1               |
| <b>14.4 Packing group, if applicable:</b>  | III               |
| <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    |

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:



- |  |                   |
|--|-------------------|
| <b>14.1 UN number:</b>   | UN1486            |
| <b>14.2 UN proper shipping name:</b>   | POTASSIUM NITRATE |
| <b>14.3 Transport hazard class(es):</b>  | 5.1               |
| Labels:  | 5.1               |
| <b>14.4 Packing group, if applicable:</b>  | III               |
| <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:**





## SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Potassium nitrate  
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable  
The Toxic Substances Control Act (TSCA) : Potassium nitrate  
Massachusetts RTK - Substance List: Potassium nitrate  
New Jersey Worker and Community Right-to-Know Act: Potassium nitrate  
New York RTK - Substance list: Potassium nitrate  
Pennsylvania Worker and Community Right-to-Know Law: Potassium nitrate  
CANADA-Domestic Substances List (DSL): Potassium nitrate  
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: Potassium nitrate  
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 2:**

H272: May intensify fire, oxidiser

### **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:**

Ox. Sol. 3: H272 - May intensify fire, oxidiser

### **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:**

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