

# SAFETY DATA SHEET



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Complying with 1907/2006/EEC Regulation of 18 December 2006

## Section 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**REACH Product name:** Multicote® 11-11-18

**Trade names:** Multicote® NPK PRO 11-11-18+Minors

**Product type:** Polymer coated controlled release fertilizer

**Use of the substance/preparation:** Agriculture – fertilizer, component of mixed fertilizers.

### Company/undertaking identification

**Supplier/Manufacturer:** Haifa Chemicals Ltd.

P.O.B 10809, Haifa Bay 26120, Israel

Tel: +972-4-8469961

Fax: +972-4-8469653/5

**E-mail address of person responsible for this SDS:** [info@haifachem.com](mailto:info@haifachem.com)

**Emergency telephone number:** +972-4-8469603/4 (with hours of operation)

CHEMTREC (U.S.): 1-800-424-9300

CHEMTREC (International) : 1-703-527-3887

## Section 2. HAZARDS IDENTIFICATION

**Classification:** The material is not classified as dangerous according to Directive 67/548/EEC and its amendments.

**Physical/chemical hazards:** May be harmful if swallowed.

May cause eye, skin and respiratory tract irritation.

See section 11 for more detailed information on health effects and symptoms.

## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/preparation:**

Ingredient name	CAS number	%	EC number
Ammonium nitrate	6484-52-2	20-35	229-347-8
Potassium sulfate	7778-80-5	15-25	231-915-5
Potassium nitrate	7757-79-1	10-20	231-818-8
Phosphoric acid, ammonium salt	7722-76-1	10-30	231-764-5
Magnesium sulfate	7487-88-9	2-7	231-298-2

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Copper sulfate	7758-98-7	<1	231-847-6
Iron sulfate	7782-63-0	<1	-
Manganese sulfate	7785-87-7	<1	232-089-9
Zinc sulfate	7733-02-0	<1	231-793-3
Sodium molybdate	7631-95-0	<1	231-551-7
Borax	1303-96-4	<1	-
Urea	57-13-6	15-30	200-315-5
Polymer coating	NA	4-10	NA

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in section 8.**

### Section 4. FIRST AID MEASURES

**Symptoms:** May cause respiratory tract, skin and eyes moderate irritation.

**Eyes contact:** May cause moderate irritation. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Skin contact:** May cause moderate irritation. Wash with plenty of soap and water for at least 10 minutes. Get medical attention.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion:** Harmful if swallowed. Do not induce vomiting. Get medical attention immediately.

**Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Notes to physician:** No specific antidote, medical staff contacts Poisons Information Center. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

**See section 11 for more detailed information on health effects and symptoms.**

### Section 5: Fire-Fighting Measures

#### Extinguishing media

**Suitable:** Water spray, dry chemical or carbon dioxide.

**Not suitable:** NA

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**Special exposure hazards:** Non-combustible.

**Hazardous thermal decomposition products:** Oxides of nitrogen, oxides of carbon, hydrogen cyanide and ammonia, phosphorus oxides and phosphine, sulfur oxide, metal oxides

**Special protective equipment for fire fighters:** Fire fighters should wear full protective clothing and self-contained breathing apparatus in positive pressure mode.

**Remark:** Move containers from fire area if possible to do so without risk.

### Section 6: Accidental Release Measures

**Personal precautions:** Wear protective clothing. Ventilate area of spill.

#### Methods for cleaning up

**Small spill:** Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

**Large spill:** As for small spill

**Personal Protection in Case of Large Spill:** Safety glasses. Dust respirator. Boots. Gloves.

### Section 7: Handling and Storage

**Handling:** Put on appropriate personal protective equipment (see section 8). Wash thoroughly after handling. Promptly sweep spillage from concrete area.

**Storage:** Keep in the original containers tightly closed, in a dry, cool and well ventilated place.

Do not store together with strong oxidizing agents strong reducing agents, powdered metals, strong acids. Keep away from combustible material. Keep away from heat, sparks and open flame.

Keep out of the reach of children.

**Specific use(s):**

### Section 8: Exposure Control / Personal Protection

**Exposure limit values:** NA

#### Exposure controls

**Occupational exposure controls:** Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Respiratory protection:** Suitable respirator. Be sure to use an approved/certified or equivalent. Wear appropriate respirator when ventilation is inadequate.

**Hand protection:** Wear protective gloves to prevent skin exposure.

**Eye protection:** Wear protective safety glasses.

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**Skin protection:** Wear appropriate long-sleeved clothing to minimize skin contact.

**Hygiene measures:** Keep away from foodstuffs and beverages. Do not eat, drink or smoke during work time. Remove soiled or soaked clothing immediately. Clean skin thoroughly after work; apply skin cream. During use, provide suitable ventilation.

**Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Exposure Guidelines:** Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements.

### Section 9: Physical and Chemical Properties

#### General information:

Physical state: granules/prills

Colour: Mixed light/dark tan.

Odour: odourless

Odour threshold: NA

Molecular weight: NA

pH: NA

Boiling point/boiling range:

Flash point: NA

Flammability: Not flammable

Explosive properties: Not explosive

Oxidizing properties: Not Oxidizer

Vapor pressure:

Relative Density:

Water solubility:

Octanol/Water partition coefficient:

Viscosity: NA

Vapor density: NA

Evaporation rate (butyl acetate=1): NA

VOC: Not an organic compounds

Apparent (Bulk) Density:

Decomposition range: NA

Melting point/melting range:

#### Other information:

Miscibility: NA

Fat solubility: NA

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Conductivity: NA  
Gas group: NA  
Auto-ignition temperature: NA

## Section 10: Stability and Reactivity

**Stability:** The product is stable under normal handling and storage conditions described in Section 7.

### Conditions to avoid:

**Materials to avoid:** Combustible materials, reducing agents, acids, alkalis, chlorates, chromates, nitrites, permanganates, metallic powders and substances containing metals such as copper, nickel, cobalt, zinc and their alloys.

**Hazardous Decomposition products:** Under fire- Oxides of nitrogen, oxides of carbon, hydrogen cyanide and ammonia, phosphorus oxides and phosphine, sulfur oxide, metal oxides

**Hazard polymerization:** Will not occur.

## Section 11: Toxicological Information

### Potential acute health effects

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.

**Ingestion:** May be harmful if swallowed.

**Skin contact:** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes contact:** May cause eye irritation.

### Acute toxicity

Product/ingredient name	Test	Species	Dose
Ammonium nitrate	LD50, oral	Rat	2217 mg/kg
Potassium sulfate	LD50, oral LD50, Intraperitoneal	Rat and mouse Rat and mouse	6600 mg/kg 1250 mg/kg
Potassium Nitrate	LD50, oral	Rat	3750 mg/kg
Magnesium sulfate	LD50, Subcutaneous LD50, Subcutaneous LD50, Intraperitoneal	Rat Mouse Mouse	1200 mg/kg 645 mg/kg 150 mg/kg
Iron sulfate	LD50, oral LD50, Intraperitoneal LD50, Intravenous	Mouse Mouse Mouse	1520 mg/kg 245 mg/kg 51 mg/kg
Manganese sulfate	LD50, oral LD50, Intraperitoneal LD50, Intravenous LD50, oral LD50, Intraperitoneal	Rat Rat Rat Mouse Mouse	2150 mg/kg 92.6 mg/kg 44.1 mg/kg 2330 mg/kg 64 mg/kg

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Zinc sulfate	LD50, Intraperitoneal	Rat	196 mg/kg
	LD50, Intravenous	Rat	69.9 mg/kg
	LD50, oral	Mouse	245 mg/kg
	LD50, Intraperitoneal	Mouse	29.06 mg/kg
	LD50, Subcutaneous	Mouse	781 mg/kg
	LD50, Intravenous	Mouse	23.3 mg/kg
Urea	LD50, oral	Rat	8471 mg/kg
	LD50, Intraperitoneal	Rat	>5000 mg/kg
	LD50, Subcutaneous	Rat	8200 mg/kg
	LD50, Intravenous	Rat	5300 mg/kg
	LD50, oral	Mouse	11000 mg/kg
	LD50, Subcutaneous	Mouse	9200 mg/kg
	LD50, Intravenous	Mouse	4600 mg/kg

**Potential Chronic Health Effects****Reproductive toxicity:** Significant effects or critical hazards are not known.**Carcinogenicity:** Significant effects or critical hazards are not known.**Mutagenicity:** Significant effects or critical hazards are not known.**Teratogenicity:** Significant effects or critical hazards are not known.**Developmental effects:****Fertility effects:** Not applicable.**Over exposure signs/symptoms****Inhalation:** According to the manufacturer a study of 67 workers in an environment with high airborne concentrations of urea found a high incidence of protein metabolism disturbances, moderate emphysema, and chronic weight loss.**Ingestion:** No specific data.**Skin:** No specific data.**Eyes:** No specific data.**Aggravation of Pre-existing Conditions:**

Supersensitive individuals with skin or eye problems, kidney impairment or asthmatic condition should have physician's approval before exposure to urea dust.

**Target organs:** No specific data.**Special Remarks on Toxicity to animals:** NA**Section 12: Ecological Information****Ecotoxicity**

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**Aquatic ecotoxicity:** nitrate and phosphate may cause adverse environmental impact such as eutrophication in confined surface waters or nitrate contamination of ground or surface water. Urea may leach into groundwater and not expected to evaporate significantly.

**Mobility:** The  $\text{NO}_3^-$  ion is mobile. The  $\text{NH}_4^+$  ion is absorbed by soil particles. Phosphates whether water or citrate-soluble are translocated in the soil only over very short distances and are then immobilized.

The dissolved  $\text{K}^+$  ion in the soil solution is absorbed by clay minerals and only in light soils where these are absent can part of the potassium be leached.

**Persistence/Degradability:** Nitrogen follows the natural nitrification/denitrification cycle to give nitrogen or nitrogen oxides.

Phosphates are converted to calcium or iron/aluminium phosphates or are incorporated into the soil organic matter.

Potassium is mainly absorbed by clay minerals or remains as  $\text{K}^+$  in the soil solution.

**Degradability in sewage works:** Urea may biodegrade to a moderate extent.

**Bioaccumulative potential:** Urea has an experimentally-determined bioconcentration factor (BCF) of less than 100 and not expected to significantly bioaccumulate.

**Result of PBT assessment:** NA

**Other adverse effects:**

**Remarks:**

### Section 13: Disposal Considerations

**Methods of disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Hazardous waste:** NA

### Section 14: Transport Information

#### International transport regulations

Regulatory Information	UN number	Proper shipping name	classes	Packing group	Label	Additional information	Marine pollutant
ADR/RID Class	NOT regulated	-	-	-	-	-	-
ADNR Class	NOT regulated	-	-	-	-	-	-
IMDG class	NOT regulated	-	-	-	-	-	-
IATA class	NOT regulated	-	-	-	-	-	-

### Section 15: Regulatory Information

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### EC regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Labelling in accordance with EC directivec: No symbol required.

**Risk phrases:** This product is not classified according to EU legislation.

### Safety phrases:

S02: Keep out of the reach of children.

S03/07: Keep container tightly closed in a cool place.

S08: Keep container dry.

S22: Do not breathe dust.

S24/25: Avoid contact with skin and eyes.

**Contains:** Polyurethane, ammonium nitrate, ammonium phosphate, potassium sulfate, magnesium sulfate, calcium phosphate, copper sulfate, iron sulfate, manganese sulfate, zinc sulfate, Borax.

**Product use:** Agriculture –mixed fertilizers.

### Section 16: Other Information

**Full text of R-phrases referred to in sections 2 and 3 :** Not available

**Full text of classifications referred to in sections 2 and 3:** Not available

**Training advice:** NA

**Recommended restriction:** NA

### Further information:

**Sources of key data used to compile the Safety Data Sheet:**

National Fire Protection Association Hazard Ratings- NFPA (R):

1 Health Hazard Rating - Slight

0 Flammability Rating - Minimal

0 Instability Rating - Minimal

National Paint & Coating Hazardous Materials Identification System – HMIS (R):

1 Health Hazard Rating - Slight

0 Flammability Rating - Minimal

0 Instability Rating - Minimal

Key Legend Information:

ACGIH- American Conference of Governmental Industrial Hygienists

OSHA- Occupational Safety and Health Administration

NTP- National Toxicology program

IARC- International Agency for Research on Cancer



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ND- Not Determined

NA- Not available

R-phrases- Risk phrases

S-phrases- Safety phrases

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According to Regulation (EC) No. 1907/2006 (REACH), Annex II and Commission Directive 2001/59/EC.

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