



## SAFETY DATA SHEET

**Dosaline Grow**

*Revision Date: January 6, 2023*

### SECTION 1: IDENTIFICATION OF SUBSTANCE / MIXTURE

**Product Name:** Dosaline Grow

**Fertilizer Formula:** 12 - 10 - 31

**Product Type:** Powder

**Recommended Use:** Hydroponics

**Restrictions on use:** N / A

**Manufacturer:** Future Harvest Development LTD.

**Emergency Telephone Number:** 250-491-0255

**24 Hour Emergency Telephone Number:** CANUTEC 1-613-996-6666

### SECTION 2: HAZARD IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Oxidizer - Category 3

#### 2.2 Label elements

Signal Word: **DANGER**



**Hazard Statement(s):**

H272 May intensify fire; oxidizer.

**Precautionary Statement(s):****Prevention:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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

P220 Keep or store away from clothing and other combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P370 + P378 In case of fire: Use water spray or fog to extinguish.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

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

Chemical Name	CAS No.	Concentration	Other Names
Monopotassium Phosphate	7778-77-0	5-10%	MKP Potassium Phosphate Monobasic
Potassium Nitrate	7757-79-1	55-65%	
Ammonium Sulfate	7783-20-2	15-20%	

**Note:** 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**

### **4.1 Description of first aid measures**

**Eye contact:** In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

**Skin contact:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Get medical attention if irritation occurs.

**Inhalation:** Remove the victim from site of exposure to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Get medical attention.

**Ingestion:** Do not induce vomiting. If victim is conscious, wash mouth thoroughly with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

### **4.2 Most important symptoms and effects, both acute and delayed**

Dusts may cause coughing and sneezing. Ingestion of large quantities may cause gastrointestinal irritation, vomiting and diarrhea.

### **4.3 Indication of any immediate medical attention and special treatment needed**

N / A

## **SECTION 5: FIRE-FIGHTING MEASURES**

### **5.1 Extinguishing media**

Use flooding quantities of water or another suitable extinguishing agent. Use flooding quantities of water or another suitable extinguishing agent.

**Not Suitable Extinguishing Media:** DO NOT use water jet.

### **5.2 Special hazards arising from the substance or mixture**

Mild oxidizer. May intensify fire.

Corrosive, flammable ammonia; corrosive, oxidizing nitrogen oxides; very toxic carbon monoxide, carbon dioxide; corrosive sulfur oxides.

### **5.3 Advice for firefighters**

Move containers from fire area if possible to do so without risk. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Use personal protective equipment. Avoid breathing vapors, mist, or gas.  
Ensure adequate ventilation. Ventilate area of spill.

### **6.2 Environmental precautions**

Prevent entry into waterways, sewers, basements, or confined areas.

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

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

### **6.4 Reference to other sections**

See Section 1 for emergency contact information.  
See Section 13 for additional waste treatment information.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

Minimize dust generation and accumulation. Do not breathe dust. Avoid contact with skin and eyes. Wash thoroughly after handling. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information measures.

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

Store and use away from heat, sparks, open flame, or any other ignition source.  
Avoid contact with combustible materials. Prevent moisture pick-up in handling and storage.

**Packaging Materials Recommended:** Use original container.

### **7.3 Specific use(s):**

N / A

## **SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

### **8.1 Control parameters**

Potassium Nitrate ACGIH TLV® TWA 5 mg/m<sup>3</sup>

### **8.2 Appropriate engineering controls**

General ventilation is usually adequate.

Use local exhaust ventilation and enclosure, if necessary to control amount in the air.

### **8.3 Individual protection measures, such as personal protective equipment**

**General Information:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Eye / Face Protection:** Wear safety glasses with side shields (or goggles).

**Skin / Hand Protection:** Chemical resistant gloves.

**Other:** Wear suitable protective clothing.

**Respiratory protection:** In case of inadequate ventilation, use respiratory protection.

**Hygiene Measures:** Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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

**Appearance:** Light brown powder.

**Odour:** Slight ammonia.

**Odour Threshold:** Unknown.

**pH:** N / A

**Initial Boiling Point / Boiling Range:** > 100°C.

**Flash Point:** N / A

**Evaporation Rate:** Not volatile (butyl acetate=1).

**Flammability:** Not flammable.

**Upper / Lower Flammability or Explosive Limits:**

**Vapor Pressure:**  $4.5 \times 10^{-15}$  Pa at 25°C- Not volatile.

**Vapor Density:** Not volatile.

**Relative Density:** 1.0 at 25.1±0.5°C (water=1).

**Solubility(ies):**

**Water Solubility:** Soluble.

**Partition Coefficient Octanol / Water:** The product is more soluble in water;  $\log(\text{octanol/water}) < 1$ .

**Auto-ignition Temperature:** N / A

**Decomposition Temperature:** N / A

**Viscosity:** N / A

**Explosive Properties:** Not explosive.

**Oxidizing Properties:** Not oxidizer.

## **9.2 Other information**

**Melting Point / Freezing Point:** N / A

**VOC:** Not an organic compound.

**Specific Gravity:** Unknown.

**Miscibility:** N / A

**Fat Solubility:** N / A

**Gas Group:** N / A

# **SECTION 10: STABILITY AND REACTIVITY**

## **10.1 Reactivity**

Not reactive under normal conditions of use. May intensify fire.

## **10.2 Chemical stability**

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

Reacts with acids and alkalis.

## **10.3 Possibility of hazardous reactions**

Hazardous reactions are not expected, under normal conditions of storage and use.

#### **10.4 Conditions to avoid**

Heat, open flames, sparks, static discharge, heat, and other ignition sources.

#### **10.5 Incompatible materials**

Strong reducing agents and strong bases, organics, flammable materials.

#### **10.6 Hazardous decomposition products**

Corrosive, flammable ammonia; corrosive sulfur oxides; corrosive, oxidizing nitrogen oxides; very toxic carbon monoxide, carbon dioxide.

### **SECTION 11: TOXICOLOGICAL INFORMATION**

#### **11.1 Information on likely routes of exposure**

**Ingestion:** Irritating. May cause nausea, stomach pain and vomiting.

**Inhalation:** May cause irritation to the respiratory system.

**Skin Contact:** Causes mild skin irritation.

**Eye Contact:** Causes eye irritation.

#### **11.2 Information on toxicological effects**

**Acute Toxicity** (list all possible routes of exposure).

**Oral Product:** LD 50.

**Monopotassium Phosphate:** Approximate 1,700 mg/kg (mouse).

**Potassium Nitrate:** 3750 mg/kg (rat).

**Dermal Product:** No data available.

**Inhalation Product:** No data available.

**Repeated Dose Toxicity Product:** No data available.

**Skin Corrosion / Irritation Product:** Causes mild skin irritation.

**Serious Eye Damage / Eye Irritation Product:** Causes eye irritation.

**Respiratory or Skin Sensitization Product:** Not a skin sensitizer.

**Carcinogenicity Product:** This substance has no evidence of carcinogenic properties.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified. Germ cell mutagenicity.

**In Vitro Product:** No mutagenic components identified.

**In Vivo Product:** No mutagenic components identified.

**Reproductive Toxicity Product:** No components toxic to reproduction.

**Specific Target Organ Toxicity - Single Exposure Product:** None known.

**Specific Target Organ Toxicity - Repeated Exposure Product:** None known.

**Aspiration Hazard Product:** Not classified.

**Other Effects:** None known.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

**Monopotassium Phosphate:**

**Toxicity to Fish:** LC50/96h (Rainbow trout) > 100 mg/L

**Toxicity to Crustaceans:** EC50/48h (Daphnia magna) > 100 mg/L

**Toxicity to Algae:** EC50/75h (algae) > 100 mg/L EC50 (48h): 300 mg/L

**Potassium Nitrate:**

**Toxicity to Crustaceans:** (24h) 490 mg/L (Daphnia magna)

### 12.2 Persistence and Degradability

Not applicable, since inorganic substance.

### 12.3 Bioaccumulative potential

The potential for bioaccumulation considered to be minimal.

### 12.4 Mobility in soil

**Soil / Water Partition Coefficient (Koc):** N / A

**Mobility:** Soluble in water.

### 12.5 Results of PBT and vPvB assessment

N / A

### 12.6 Other adverse effects

**Substances which have an unfavorable influence on the oxygen balance and can be measured using parameters such as BOD, COD, etc.:** Absent

**Substances Which Contribute to Eutrophication:** Phosphates, 10% as P<sub>2</sub>O<sub>5</sub>



## SECTION 13: DISPOSAL CONSIDERTATIONS

### 13.1 Waste treatment methods

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

**Packing:** Empty containers should be taken for local recycling, recovery, or waste disposal.

## SECTION 14: TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class	Packing Group
Canadian TDG	1486	Potassium Nitrate Mixture	5.1	III
US DOT	1486	Potassium Nitrate Mixture	5.1	III

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code.

N / A

## SECTION 15: REGULATORY INFORMATION

**TSCA Inventory:** Not listed.

**Australia AICS:** On or in compliance with the inventory.

**Canada DSL Inventory List:** On or in compliance with the inventory.

**EINECS, ELINCS or NLP:** On or in compliance with the inventory.

**Japan (ENCS) List:** On or in compliance with the inventory.

**China Inv. Existing Chemical Substances:** Not in compliance with the inventory.

**Korea Existing Chemicals Inv. (KECI):** On or in compliance with the inventory.

**Canada NDSL Inventory:** Not in compliance with the inventory.

**Philippines PICCS:** On or in compliance with the inventory.

**US TSCA Inventory:** On or in compliance with the inventory.

**New Zealand Inventory of Chemicals:** On or in compliance with the inventory.

**Japan ISHL Listing:** On or in compliance with the inventory.

## SECTION 16: OTHER INFORMATION

**SDS Prepared By:** Future Harvest Development LTD. Kelowna BC, Canada.

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