

# MATERIAL SAFETY DATA SHEET



91990

## Miracle-Gro® Excel™ 21-5-20 All-Purpose

Scotts-Sierra Horticultural Products Co.  
14111 Scottslawn Road  
Marysville, Ohio 43041

In Case of Emergency call:  
CHEMTREC 1-800-424-9300  
International Emergency Telephone Number:  
1-703-527-3887 (USA)  
For non-Emergency calls:  
1-937-644-0011(USA)

### I. MATERIAL IDENTIFICATION

Product Name: Miracle-Gro® Excel™ All-Purpose  
Analysis: 21-5-20  
Stock Number: 91990

NFPA Hazard Ratings		
Health	2	0 Least 1 Slight 2
Flammability	0	Moderate 2 High
Reactivity	2	

### II. HAZARDOUS INGREDIENTS

<u>MATERIAL</u>	<u>CAS #</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Potassium Nitrate	7757-79-1	None	None
Ammonium Nitrate	6484-52-2	None	None
Urea Phosphate	4861-19-2	None	None
Boric Acid	10043-35-3	None	None
Copper Sulfate	7758-98-7	None	1mg(Cu)/m3
Iron EDTA	15708-41-5	None	None
Manganese Sulfate	7785-87-7	5mg(Mn)/m3	5mg(Mn)/m3
Sodium Molybdate	7631-95-0	5mg(Mo)/m3	5mg(Mo)/m3
Zinc Sulfate	7733-02-0	None	None

This product is classified as an OXIDIZER for transportation purposes.

The ACGIH Threshold Limit Values for nuisance (inert) dusts containing <1% crystalline silica and no asbestos are:  
10 mg/m3 total, 5 mg/m3 respirable.

### III. FIRST AID PROCEDURES

Eyes: If in eyes, flush with water for 15 minutes holding eyelids open. Get medical attention if irritation persists.  
Ingestion: Never give anything by mouth to an unconscious or convulsing person. Have conscious person drink 1 to 2 glasses of water, then induce repeated vomiting until vomit is clear. Call physician.  
Skin: Wash with plenty of soap and water.  
Inhalation: Remove to fresh air. Treat symptomatically.

### IV. HEALTH HAZARD INFORMATION

#### Summary of Risks

Ammonium nitrate is an allergen. Prolonged or repeated direct contact with fertilizer may irritate eyes and skin. Inhalation of dust may irritate nose, throat, and lungs. Prolonged exposure may cause weakness, depression, headache, mental impairment, anemia, methemoglobinemia, and kidney injury.

Ingestion of product can cause severe gastrointestinal irritation, muscular weakness, and blue-tinged skin (cyanosis). Infants and children are especially at risk for cyanosis. Ingestion of large amounts may result in death.

Tumorigenic, mutagenic, and reproductive effects of potassium nitrate and urea in laboratory animals are reported in the NIOSH Registry of Toxic Effects.

Medical conditions which may be aggravated by contact: Ammonium nitrate allergy. Skin abrasions and sores. Inhalation of dust may aggravate asthma.

Target Organs: Skin, eyes, respiratory tract, gastrointestinal tract, and central nervous system.

Primary Entry Route(s): Ingestion, inhalation.

Chronic Effect(s): Chronic exposure to nitrates may cause weakness, depression, headache, blood changes (methemoglobinemia and anemia), and kidney injury (nephritis).

Acute Effect(s): Excessive inhalation of dust may cause irritation and coughing. Prolonged skin contact with product may cause mild irritation.

Ingredients Listed as a Carcinogen

IARC Monographs: No

NTP: No

OSHA: No

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**V. PERSONAL PROTECTION AND PRECAUTIONS**

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Goggles: None required for routine use as fertilizer. High airborne dust levels or mists of product dissolved in liquid may be irritating; use chemical goggles.

Gloves: None required for normal use. If prolonged or repeated use irritates skin, use neoprene or PVC gloves.

Respirator: If airborne dust levels are high or product does not remain intact, use a combination of engineering controls (e.g. ventilation) and personal protection (e.g. NIOSH/MSHA approved respirator for dusts, mists, and fumes) to reduce exposures to acceptable levels.

Workplace Considerations

Ventilation: Ventilation and personal protection are recommended whenever dust levels are high or product does not remain intact.

Safety Stations: Running water should be available in case material gets in eyes.

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**VI. PHYSICAL HAZARD INFORMATION**

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Flammable Limits (% in Air):	N/A	Color:	Aqua-blue powder
Extinguishing Media:	Water	Odor:	Slight yeasty odor
Auto Ignition Temperature:	N/A	Boiling Point:	Decomposes on heating
Flash Point (method):	Decomposes on heating	Solubility in H <sub>2</sub> O:	3.0 lbs/gal
		Specific Gravity:	(H <sub>2</sub> O = 1) 45.1-47.2 lbs/ft <sup>3</sup>
		Vapor Pressure:	Not Known
		Evaporation Rate:	N/A
		pH:	5.4 (10% solution)

Reactivity

Stability:	Stable
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid:	Extreme heat. Contact with strong alkalis, oxidizers, and reducing agents. Contact with fuels and other organic or combustible materials. Active metals such as aluminum and magnesium. Strong reducing agents. Chlorine and its compounds.
Hazardous Decomposition Products:	In a fire, may produce oxides of nitrogen, potassium, carbon, sulfur, and phosphorus, as well as ammonia.
Chemical Incompatibilities:	Nitrates are incompatible with strong alkalis and reducing agents, active metals (such as aluminum and magnesium), ammonia, organic, and combustible materials.  Urea is incompatible with strong oxidizers, alkalis, sodium nitrite, and many chlorine compounds (including bleach and other household cleaning products).
Unusual Fire, Explosion and Reactivity Hazards:	This product is comprised of materials which are oxidizers in their pure, unmixed forms. It will not burn but can provide oxygen for existing fires and cause combustible materials to ignite explosively.  Material decomposes on heating to emit ammonia and toxic oxides of nitrogen, phosphorus, carbon, sulfur, and potassium. High airborne dust concentrations have the potential for explosions.
<u>In Case of Fire:</u>	Evacuate area. Flood with water to cool containers. Apply water from a safe distance to avoid splattering of molten material. Wear self-contained breathing apparatus to fight large fires.

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**VII. REGULATORY INFORMATION**

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DOT Classification: Nitrates, inorganic, NOS, 5.1, UN1477, PG II.

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**VIII. STORAGE AND SPECIAL PRECAUTIONS**

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Precautions to be taken in handling and storage

Store in a cool, dry area away from incompatible materials and heat sources. Store away from feed and foodstuffs, as well as household cleaning products. Wash hands with soap and water after handling product. Keep out of reach of children.

In case of spills

Avoid dusting or misting conditions during cleanup. If material is uncontaminated, collect and reuse as recommended for product. If contaminated, put in appropriate container and dispose. Keep spills away from drinking water supplies. After cleaning up spill, flush area with water.

Waste Management/Disposal

Apply as fertilizer to field. If product is contaminated, dispose of in an approved landfill disposal facility, in accordance with applicable federal, state, and local regulations.

Date Revised:

Date Issued: 4/17/97

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