

# MATERIAL SAFETY DATA SHEET

## JACK'S PROFESSIONAL 21-5-20 ALL PURPOSE WATER-SOLUBLE FERTILIZER

J.R. Peters, Inc.  
6656 Grant Way  
Allentown, PA 18106

In Case of Emergency call:  
CHEMTREC: 800-424-9300  
For non-Emergency calls:  
1-610-395-7104

### I. MATERIAL IDENTIFICATION

Product Name: Jack's Professional  
Analysis: 21-5-20 All Purpose

#### NFPA Hazard Ratings

Health	2	0 Least
Flammability	0	1 Slight
Reactivity	2	2 Moderate
		3 High
		4 Severe

### II. HAZARDOUS INGREDIENTS

<u>MATERIAL</u>	<u>CAS #</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Ammonium Nitrate	6484-52-2	None	None
Magnesium Sulfate	07487-88-9	None	None
Monopotassium Phosphate	7778-77-0	None	None
Potassium Nitrate	7757-79-1	None	None
Urea	57-13-6	None	None
Boric Acid	10043-35-3	None	None
Copper Sulfate	7758-99-8	None	None
Manganese Sulfate	7785-87-7	None	None
Iron EDTA	15708-41-5	None	None
Ammonium Molybdate	7631-95-0	5mg(Mo)/m3	5mg(Mo)/m3

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. Product coating is expected to minimize airborne exposure.

### 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

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.

One experimental study of mice and rats fed large doses of urea (394 gm/kg and 821 gm/kg over a period of one year) produced tumors of the blood-forming organs. Human reproductive effects have been reported at high doses by intraplacental route. Mutagenic effects are also reported.

Urea is moderately toxic by ingestion. It may cause headache, nausea, and vomiting. Other possible effects are disorientation, nervousness, hypertension, hypothermia, and cardiac effects.

Medical conditions which may be aggravated by contact: Skin abrasions and sores.

Target Organs: Inhalation of dust may aggravate asthma.

Primary Entry Route(s): Skin, eyes, respiratory tract, gastrointestinal tract, and central nervous system.

Chronic Effect(s): Ingestion, inhalation.

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.

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

#### Personal Protective Equipment

**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.

<b>Flammable Limits (% in Air):</b>	N/A	<b>Color:</b>	Aqua-blue powder
<b>Extinguishing Media:</b>	Water	<b>Odor:</b>	Slight yeasty odor
<b>Auto Ignition Temperature:</b>	N/A	<b>Boiling Point:</b>	Decomposes on heating
<b>Flash Point (method):</b>	Decomposes on heating	<b>Solubility in H<sub>2</sub>O</b>	100% @ 180F
		<b>Specific Gravity:</b>	(H <sub>2</sub> O = 1) 45.1-47.2 lbs/ft <sup>3</sup>
		<b>Vapor Pressure:</b>	Not Known
		<b>Evaporation Rate:</b>	N/A
		<b>pH:</b>	5.4 (10% solution)

<b>Reactivity</b>	
<b>Stability:</b>	Stable
<b>Hazardous Polymerization:</b>	Will Not Occur
<b>Conditions to Avoid:</b>	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 alkalis and reducing agents. Sodium hypochlorite.
<b>Hazardous Decomposition Products:</b>	In a fire, oxides of nitrogen, potassium, and carbon as well as ammonia, biuret, and cyanuric acid are possible.
<b>Chemical Incompatibilities:</b>	Nitrates are incompatible with strong alkalis and reducing agents, active metals (such as aluminum and magnesium), ammonia, organic, and combustible materials.  Monoammonium phosphate is incompatible with sodium hypochlorite.  Urea is incompatible with strong oxidizers alkalis, sodium nitrite, and many chlorine compounds (including bleach and other household cleaning products).
<b>Unusual Fire, Explosion and Reactivity Hazards:</b>	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 toxic oxides of nitrogen, carbon, and potassium as well as ammonia, biuret, and cyanuric acid. High airborne dust concentrations have the potential for explosion.
<b><u>In Case of Fire:</u></b>	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 UN1477

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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, provincial, and local regulations.