


NFPA HAZARD RATING				U.S. TRANSPORT SUMMARY	
0	Least				
1	Slight	2	Health		Not regulated by the U.S. DOT as a hazardous material. See Section 14 for additional information.
2	Moderate	0	Flammability		
3	High	0	Reactivity		
4	Severe				

SECTION 1: IDENTIFICATION	
Product Name:	Dry Man 20
EPA Registration #:	Exempt
Product ID/Unity #:	10123675, 10127203, 10136320
Common Name:	Soluble fertilizer mixture
Chemical Description:	Macro and micro nutrient soluble fertilizer
Recommended Uses:	Fertilizer product – See product label for full directions for use.
Restrictions for Use:	See product label for any potential restrictions on use.
Manufactured For: WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	<b>MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs)</b>  <b>Non-Emergency Business Inquiries: 1-855-494-6343</b> Mon – Fri 8am – 5pm (Central Standard Time)
FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL: CHEMTREC 1-800-424-9300 (24 hours)	

SECTION 2: HAZARDS IDENTIFICATION	
<b>EMERGENCY OVERVIEW:</b> Dark blue powder microprill and crystalline mix. Causes eye irritation. Harmful if inhaled.	
<b>POTENTIAL HEALTH EFFECTS:</b>	
Eyes: Causes moderate but reversible eye irritation.	
Skin: May cause mild skin irritation.	
Inhalation: Harmful if inhaled.	
Ingestion: May cause gastric discomfort.	
Preexisting Conditions: Preexisting respiratory conditions may be aggravated by exposure to dust.	
Chronic Health Effects: Repeated or prolonged inhalation of dust may affect the central nervous system and lungs.	
Carcinogenicity	NTP: Not listed                      IARC: Not listed                      OSHA: Not listed
<b>OSHA HCS 2012 CLASSIFICATION:</b> Eye Irritation Category 2B; Acute Inhalation Category 4; Specific Target Organ Toxicity – Repeated Exposure Category 2	
<b>SIGNAL WORD:</b> WARNING	
<b>HAZARD STATEMENTS:</b> Causes eye irritation. Harmful if inhaled. May cause damage to central nervous system and lungs through prolonged or repeated inhalation.	
Percent of product with unknown toxicity: 0.1%	
<b>PRECAUTIONARY STATEMENTS:</b>	
Prevention: Wash hands thoroughly after handling. Do not breathe dust. Use only outdoors or in a well-ventilated area.	

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**Response:** **If in eyes:** Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. **If inhaled:** Remove person to fresh air and keep comfortable for breathing. Call a poison control center (1-877-424-7452) or doctor for treatment advice if you feel unwell. Get medical attention if you feel unwell.

**Storage:** See Section 7 for storage information.

**Disposal:** Dispose of contents/container in accordance with Federal, state and local regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS		
Ingredient	% (wt)	CAS Reg. #
Manganese sulfate	64.0 – 66.0%	7722-76-1
Citric acid	15.0 – 17.0%	77-92-9
Potassium citrate	15.0 – 17.0%	866-84-2
*Ingredients not specifically listed are non-hazardous and are considered to be confidential business information under 29 CFR 1910.1200(i).		
See Section 8 for exposure limits.		

SECTION 4: FIRST AID MEASURES	
<b>Inhalation:</b>	Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
<b>Ingestion:</b>	Seek medical attention or call a poison control center for treatment advice. Do not induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
<b>Eyes:</b>	Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention if irritation persists.
<b>Skin:</b>	Remove contaminated clothing and wash before re-using. Flush skin with water and then wash with soap and water. Seek medical attention if irritation persists.

SECTION 5: FIRE FIGHTING MEASURES	
<b>Suitable Extinguishing Media:</b>	Chemical type foam, Carbon dioxide, Dry chemical, Water fog
<b>Unsuitable Extinguishing Media:</b>	Water jet
<b>Special Fire Fighting Procedures:</b>	Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Avoid breathing vapors; keep upwind.
<b>Hazardous Combustion Products:</b>	Carbon oxides, Sulfur oxides, some metallic oxides
<b>Unusual Fire and Explosion Hazards:</b>	During a fire, irritating/toxic gases may be generated.

SECTION 6: ACCIDENTAL RELEASE MEASURES	
<b>Personal Precautions:</b>	Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.
<b>Environmental Precautions:</b>	Keep spilled product and any rinse water from entering sewers or waterways.
<b>Methods for Containment:</b>	Contain spilled product by sweeping up if a small spill or by diking area with sand or earth if a large spill.
<b>Methods for Clean-up:</b>	Avoid dust formation. Vacuum, scoop or sweep up material and place in a container for disposal. If product is uncontaminated, spilled material may be applied at the rate recommended on the label. Never return spills to original containers for re-use. After removal of spilled product, flush contaminated area thoroughly with water.
<b>Other Information:</b>	None known

**SECTION 7: HANDLING AND STORAGE**

**Handling:** Avoid breathing dust. Use only outdoors or in a well-ventilated area. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

**Storage:** Store in a cool, dry area away from children, feed and food products. Store away from incompatible materials. Protect packaging from physical damage. Protect from exposure to fire conditions.

**Minimum Storage Temperature:** Not applicable

**Other Precautions:** Consult Federal, state and local laws and regulations pertaining to storage.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

<b>Component:</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>	<b>NIOSH REL</b>
Manganese sulfate (listed as Manganese inorganic compounds)	5 mg/m <sup>3</sup> CEIL	0.2 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA 3 mg/m <sup>3</sup> ST
Particulates not otherwise classified	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable)		

**Respiratory Protection:** If dust concentration exceeds permissible levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates.

**Engineering Controls:** **Local Exhaust:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

**Protective Gloves:** Wear chemically protective gloves to prevent exposure to skin.

**Eye Protection:** Wear chemical goggles or safety glasses and full face shield. Contact lenses are not eye protective devices. An emergency eyewash or water supply should be readily available to the work area.

**Other Protective Clothing or Equipment:** Wear long-sleeve shirt, long pants and shoes plus socks to prevent skin contact.

**Work/Hygienic Practices:** Never eat, drink, nor use tobacco in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Solid	<b>Specific Gravity (H<sub>2</sub>O=1):</b>	<1.0
<b>Vapor Pressure (mm Hg):</b>	Not applicable	<b>Density (lbs/gallon):</b>	Not applicable
<b>Vapor Density (Air=1):</b>	Not applicable	<b>Melting Point/Freezing Point:</b>	Not determined
<b>Solubility in Water (wt %):</b>	>18%	<b>Boiling Point/Range:</b>	Not determined
<b>Viscosity:</b>	Not applicable	<b>pH (1% solution):</b>	Not determined
<b>Appearance and odor:</b>	Dark blue powder crystals and microprills	<b>Flash Point:</b>	Not applicable

**SECTION 10: STABILITY AND REACTIVITY**

**Reactivity:** None known

**Chemical Stability:** Product is stable at ambient temperature and pressure, under normal storage and handling conditions.

**Possibility of Hazardous Reactions:** Will not occur

**Conditions to Avoid:** Excessive heat, dust generation and damp areas

**Incompatible Materials:** Oxidizing agents, strong acids and bases.

**Hazardous Decomposition Products:** When exposed to excessive heat, Carbon oxides, Sulfur oxides, and some metallic oxides may be formed.

**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>ACUTE TOXICITY</b>	
Eye Effects:	Exposure to dust is expected to cause moderate but reversible eye irritation.
Skin Effects:	Mild skin irritation is possible.
Acute Inhalation Effects:	Harmful if inhaled. Estimated LC50 = 4 mg/L
Acute Oral Effects:	Estimated LD50 = 2,717 mg/kg
Specific Target Organ Toxicity:	Central nervous system, lungs
<b>CHRONIC TOXICITY</b>	
Chronic Effects:	Repeated or prolonged inhalation of dust may affect the central nervous system and lungs.
Carcinogenicity:	No component is anticipated to have carcinogenic effects.
Mutagenicity:	No component is anticipated to have mutagenic effects.
Teratogenicity:	No component is anticipated to have teratogenic effects.
Reproductive Toxicity:	No component is anticipated to have effects on the reproductive system.
<b>POTENTIAL HEALTH EFFECTS:</b>	
Eyes:	Causes moderate but reversible eye irritation.
Skin:	May cause mild skin irritation.
Inhalation:	Harmful if inhaled.
Ingestion:	May cause gastric discomfort.

**SECTION 12: ECOLOGICAL INFORMATION**

<b>ENVIRONMENTAL SUMMARY:</b> Not determined	
<b>ECOTOXICITY DATA:</b>	
Fish Acute and Prolonged Toxicity:	Not determined
Aquatic Invertebrate Acute Toxicity:	Not determined
Aquatic Plant Toxicity:	Not determined
Bird Acute and Prolonged Toxicity:	Not determined
Honeybee Toxicity:	Not determined
<b>ENVIRONMENTAL EFFECTS:</b>	
Soil Absorption/Mobility:	Not determined
Persistence and degradability:	Not determined
Bioaccumulative Potential:	Not determined
Other adverse effects:	Not determined

**SECTION 13: DISPOSAL CONSIDERATIONS**

<b>Waste:</b>	Dispose of in accordance with applicable Federal, state and local laws and regulations.
<b>Container:</b>	Ensure all product has been emptied from the sack/bag. Dispose of emptied container in accordance with applicable Federal, state and local laws and regulations.
<b>RCRA Characteristics:</b>	It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

**SECTION 14: TRANSPORT INFORMATION**

<b>DOT:</b> (Ground)	This product is not regulated by the U.S. Department of Transportation as a hazardous material for ground shipment.
<b>IMDG:</b> (Sea)	Not determined
<b>IATA:</b> (Air)	Not determined
<b>TDG:</b> (Canada)	Not determined

**SECTION 15: REGULATORY INFORMATION**

**TSCA Inventory:** All components are listed on the TSCA inventory.

**SARA Title III Information:**

**Section 302 - Extremely hazardous substances:** None listed

**Section 311/312 – Hazard Categories:** Immediate (Acute), Delayed (Chronic)

**Section 313 –** The following chemicals are subject to the reporting requirements of Section 313 of Title III, Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:

Manganese compounds (66.0% maximum)

**CERCLA -** This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):

Manganese compounds are considered to be a CERCLA hazardous substance though no RQ is established.

**California Proposition 65:** This product does not contain chemicals known to the state of California to cause cancer and/or reproductive harm.

**U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI):**

Chemical Name	CAS #	State(s)
Manganese sulfate	10034-96-5	MN, NJ, PA

**Canadian Domestic Substances List:** Not determined

**WHMIS Classification:** This product is not registered for use in Canada. WHMIS classification is not determined.

**SECTION 16: OTHER**

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**Sections Revised:** All