Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: ATP Granular LS Dicot Mix

Common Name: A granular plant nutrient compound

Recommended Uses: Fertilizer product – See product label for full directions for use.

Restrictions for Use: For manufacturing use only. Not for retail sale.

Manufactured by:

WINFIELD SOLUTIONS, LLC WINFIELD UN

P. O. Box 64589

St. Paul, MN 55164-0589, USA

Initial Supplier: WINFIELD UNITED CANADA. ULC

101-302 Wellman Lane

Saskatoon, Saskatchewan S7T 0J1, CAN

1-306-249-5112

MEDICAL EMERGENCY TELEPHONE NUMBER:

1-877-424-7452 (24hrs)

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL: CHEMTREC 1-800-424-9300 (24 hours)

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Gray to brown granule with no noticeable odor. Causes serious eye irritation. Harmful if swallowed.

POTENTIAL HEALTH EFFECTS:

Eyes: Causes serious eye irritation. Symptoms may include stinging, tearing, redness, itching, swelling, and blurred vision.

Skin: May cause mild skin irritation in the form of redness and itching.

Inhalation: Inhalation of dust may cause mild irritation of the upper respiratory tract.

Ingestion: Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Preexisting Conditions: Preexisting respiratory conditions may be aggravated by exposure to dust.

Chronic Health Effects: Prolonged and/or excessive exposure to respirable crystalline silica containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica. Repeated inhalation of dust may lead to signs of manganese poisoning. Prolonged, repeated or excessive oral exposure may have a negative impact on fertility, the reproductive system and the unborn child. See Section 11 for further information.

Carcinogenicity NTP: Known IARC: Group 1 OSHA: Not listed

See Section 11 for further information (crystalline silica, quartz) (crystalline silica, quartz)

OSHA HCS 2012 CLASSIFICATION: Eye Irritation Category 2A; Acute Oral Toxicity Category 4; Reproductive Toxicity Category 2;

Carcinogenicity Category 1A; Specific Target Organ Toxicant-Repeat Exposure Category 2

SIGNAL WORD: DANGER

HAZARD STATEMENTS:

Causes serious eye irritation.

Harmful if swallowed.

Suspected of damaging fertility or the unborn child.

May cause cancer.

May cause damage to organs through prolonged or repeated exposure.

Percent of product with unknown toxicity: 48.0%

PRECAUTIONARY STATEMENTS:

Prevention: Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do

not breathe dust. Wear protective gloves, eye and face protection and protective clothing. Read the entire label before

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

Response: If in eyes: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. If eve irritation persists: Get medical attention.

If swallowed: Rinse mouth. Call a poison control center or doctor for treatment advice if you feel unwell.

If exposed or concerned or if you feel unwell: Get medical attention.

Storage: Store in a secured, preferably, locked area.

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





SECTION 3: COMPO	SITION/INFORMATIO	N ON INGREDIENTS
Ingredient	% (wt)	CAS Reg. #
Zinc lignosulfonate/Zinc humate	29.0 – 32.3%	57866-49-6/Not available
Manganese lignosulfonate/Manganese humate	29.4 - 34.0%	68186-83-4/Not available
Sodium tetraborate pentahydrate	19.0 – 22.0%	12179-04-3
Ammonium sulfate	9.0 – 11.0%	7783-20-2
Crystalline silica, quartz	0.20 - 0.95	14808-60-7
	See Section 8 for exposure limits	S.

SECTION 4: FIRST AID MEASURES

Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if

irritation occurs.

Ingestion: Rinse mouth. Seek medical attention or call a poison control center for treatment advice if you feel unwell. 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.

Eves: 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.

Skin: Remove contaminated clothing and wash before re-using. Flush skin with water and then wash with soap and water.

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Chemical type foam, Carbon dioxide, Dry chemical, Water fog or spray

Unsuitable Extinguishing Media: Water jet

Special Fire Fighting Procedures: 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.

Hazardous Combustion Products: Carbon oxides, nitrogen oxides, sulfur oxides, ammonia and metal oxides.

Unusual Fire and Explosion Hazards: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

Environmental Precautions: Keep spilled product and any rinse water from entering sewers or waterways.

Methods for Containment: Contain spilled product by sweeping up if a small spill or by diking area with sand or earth if a large spill. Avoid generating excessive dust.

Methods for Clean-up: Vacuum, scoop or sweep up material and place in a container for disposal. Avoid generating excessive dust. 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.

Other Information: None known

SECTION 7: HANDLING AND STORAGE

Handling: Avoid excessive generation of dust. Avoid unnecessary exposure to the atmosphere to prevent moisture pick up, which makes the material difficult to handle. Do not breathe dust. Do not eat, drink or smoke when using this product. 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 secured, cool, dry area away from children, feed and food products. Protect packaging from physical damage. Protect from exposure to heat and fire conditions.

Minimum Storage Temperature: Store under conditions that will avoid breakdown by thermal cycling (wide variation in temperature). The product should not be stored in direct sunlight to avoid physical breakdown due to thermal cycling.

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION				
Exposure Guidelines	Exposure Guidelines			
Component:	OSHA PEL	ACGIH TLV	NIOSH REL/IDLH	
Particulates not	15 mg/m ³ (total dust)			
otherwise classified	5 mg/m³ (respirable)			

Borates, tetra, sodium salts, pentahydrate	TWA: 10 mg/m³ (vacated)	STEL: 6 mg/m³ (inhalable fraction) TWA: 2 mg/m³ (inhalable fraction)	TWA: 1 mg/m³
Manganese lignosulfonate & Manganese humate (as Manganese)	CEIL: 5 mg/m ³	TWA: 0.02 mg/m³ (respirable fraction) TWA: 0.1 mg/m³ (inhalable fraction)	IDLH: 500 mg/m³ TWA: 1 mg/m³ STEL: 3 mg/m³
Paraffin	TWA: 2 mg/m³ (vacated)	TWA: 2 mg/m ³	TWA: 2 mg/m ³
Crystalline silica, quartz	30/(%SiO2+2) mg/m³ TWA, Total Dust; 250/(%SiO2+5) mppcf TWA, respirable fraction; 10/(%SiO2+2) mg/m³ TWA, respirable TWA: 0.1 mg/m³ (vacated)	TWA: 0.025 mg/m³ Respirable particulate matter	IDLH: 50 mg/m³ respirable dust TWA: 0.05 mg/m³ respirable dust

Respiratory Protection: If dust concentration exceeds permissible levels or if irritation is experienced, wear NIOSH approved airpurifying 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			
Physical State:	Solid	Specific Gravity (H ₂ O=1):	Not available
Vapor Pressure (mm Hg):	Not applicable	Bulk Density:	900-950 kg/m ³
Vapor Density (Air=1):	Not applicable	Melting Point/Freezing Point:	Not applicable
Solubility in Water (wt %):	Not available	Boiling Point/Range:	Not applicable
Viscosity:	Not applicable	pH (1% solution):	Not determined
Appearance and odor:	Gray to brown granules with no noticeable odor	Flash Point:	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

silica.

Incompatible Materials: Strong acids and bases

Hazardous Decomposition Products: When exposed to excessive heat, Carbon oxides, Sulfur oxides, metallic oxides, and ammonia

may be formed.

	SECTION 11: TOXICOLOGICAL INFORMATION
ACUTE TOXICITY	
Eye Effects:	Based on component data this formulation this product is anticipated to cause serious eye irritation. Symptoms may include stinging, tearing, redness, itching, swelling, and blurred vision
Skin Effects:	May cause mild skin irritation in the form of redness and itching.
Acute Inhalation Effects:	Estimated LC50 is not determined, however based upon component data it is unlikely that this product is acutely toxic by inhalation. Inhalation of dust may cause mild irritation of the upper respiratory tract.
Acute Oral Effects:	Estimated LD50 968 mg/kg. Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea vomiting and diarrhea.
CHRONIC TOXICITY Specific Target Organ Toxicity:	Prolonged and/or excessive exposure to respirable crystalline silica containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline

Continued on next page

Chronic manganese poisoning primarily involves the central nervous system. Early symptoms include languor, sleepiness and weakness in the legs. High incidence of pneumonia has been found in workers exposed to the dust or fume of some manganese compounds. To the best of our knowledge, the

chemical, physical and toxicological properties have not been thoroughly investigated.

Carcinogenicity: The International Agency for Research on Cancer (IARC) concludes that there is sufficient evidence in

humans for carcinogenicity of inhaled crystalline silica from occupational sources (IARC Group 1), that carcinogenicity was not detected in all industrial circumstances studied and that carcinogenicity may depend on characteristics of the crystalline silica or external factors affecting its biological activity. The National Toxicology Program (NTP) classifies respirable crystalline silica as "Known to be a human carcinogen". The American Conference of Governmental Industrial Hygienists (ACGIH) classifies

crystalline silica, quartz as a suspected human carcinogen (A2).

Mutagenicity: No component is anticipated to have mutagenic effects.

Reproductive Toxicity/

Teratogenicity:

Prolonged, repeated or excessive oral exposure may have a negative impact on fertility, the reproductive system and the unborn child. Animal feeding studies with boric acid and sodium tetraborate in rat, mouse

and dog at high doses have demonstrated effects on fertility and testes. Studies with the chemically

related boric acid in rat, mouse and rabbit, at high doses, demonstrate

developmental effects on the fetus including fetal weight loss and minor skeletal variations

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Not determined

ECOTOXICITY DATA:

Fish Acute and Prolonged Toxicity:

Aquatic Invertebrate Acute Toxicity:

Aquatic Plant Toxicity:

Bird Acute and Prolonged Toxicity:

Honeybee Toxicity:

Not determined

Not determined

Not determined

ENVIRONMENTAL EFFECTS:

Soil Absorption/Mobility:

Persistence and degradability:

Bioaccumulative Potential:

Other adverse effects:

Not determined

Not determined

SECTION 13: DISPOSAL CONSIDERATIONS

Waste: Dispose of in accordance with applicable Federal, state and local laws and regulations.

Container: 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.

SECTION 14: TRANSPORT INFORMATION

DOT (U.S. Ground): Not regulated

IMDG (Sea): Not determined

IATA (Air): Not determined

TDG (Canada): Not regulated

SECTION 15: REGULATORY INFORMATION

International Inventories

TSCA Inventory: All components are listed or exempt from listing on the TSCA inventory.

Canadian Domestic Substances List: All components are listed or exempt from listing on the DSL.

United States Federal Regulations

SARA Title III Information:

Section 302 - Extremely hazardous substances: None listed

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

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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 (29.4 - 34.0%); Zinc compounds (29.0 - 32.3%)

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 and Zinc compounds are considered to be CERCLA hazardous substances though no RQ has been established.

SECTIO	N 16: OTHER IN	IFORMATION
NFPA HAZARD RATING	Health	2
	Flammability	0
	Reactivity	0
	4= Severe 3= Hig	h 2= Moderate 1= Slight 0= Least

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