



# MATERIAL SAFETY DATA SHEET

## SECTION 1 – PRODUCT IDENTIFICATION AND USE

<b>PRODUCT IDENTIFIER:</b>	TURF 18-3-4		
<b>PRODUCT USE:</b>	Liquid Fertilizer	<b>SUPPLIER'S NAME:</b>	Same as manufacturer
<b>MANUFACTURER'S NAME:</b>	Agrisol Manufacturing Inc.	<b>ADDRESS:</b>	Same as manufacturer
<b>ADDRESS:</b>	220 – 7565, 132 Street, Surrey, BC, V3Z 1K7 Canada		
<b>Emergency Phone No:</b>	1(866) 246-3378		

## SECTION 2 – HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	LD <sub>50</sub> OF INGREDIENT (SPECIFY SPECIES & ROUTE)
Potassium Nitrate	7757-79-1	LD <sub>50</sub> (rat, oral) 3750 mg/kg
Phosphoric Acid	7664-38-2	LD <sub>50</sub> (oral male rat) 1530 mg/Kg LD <sub>50</sub> (dermal rabbit) 2730 mg/Kg Inhalation LC <sub>50</sub> (rat) 850 mg/m <sup>3</sup>
Urea	57-13-6	LD <sub>50</sub> (oral, rat): 14300-15000 mg/kg LD <sub>50</sub> (oral, mouse): 11500-13000 mg/kg LC <sub>50</sub> (fish, 96hrs): >9100 mg/L LC <sub>50</sub> (daphnia, 24 hrs) 10000 mg/L
Ferrous Sulphate	7720-78-7	LD <sub>50</sub> (oral rat) 319 mg/Kg
Manganese Sulphate	10034-96-5	Oral rat LD50: 2150 mg/Kg.
Zinc (Zn) Sulphate	7446-20-0	Acute Dermal LD50 Rat: > 2000 mg/kg Acute Oral LD50 Rat: 623 mg/kg
Iron (Fe) EDTA	15708-41-5	LD <sub>50</sub> (rat, oral) >5000 mg/kg
Borax	10043-35-3	LD <sub>50</sub> (rat, oral) 2660 mg/kg

## SECTION 3 – PHYSICAL DATA

<b>PHYSICAL STATE:</b>	Liquid	<b>ODOUR &amp; APPEARANCE</b>	Greenish liquid; Slight odor
<b>ODOUR THRESHOLD (ppm):</b>	NAV	<b>VAPOUR PRESSURE (mmHg):</b>	Negligible
<b>VAPOUR DENSITY (air=1):</b>	NAP	<b>SPECIFIC GRAVITY:</b>	1.17 g/ml
<b>pH:</b>	5.0 – 6.0	<b>BOILING POINT (°C)</b>	100
<b>FREEZING POINT (°C)</b>	0 °C	<b>EVAPORATION RATE:</b>	NAP
<b>COEFF. WATER/OIL DIST</b>	NAV	<b>SOLUBILITY (in water):</b>	Soluble in water

## SECTION 4 – FIRE AND EXPLOSION DATA

<b>FLAMMABLE:</b>	No		
<b>IF YES, UNDER WHAT CONDITIONS?</b>	Even though product is not combustible, it can contribute to combustion as a source of fuel.		
<b>MEANS OF EXTINCTION:</b>	Water spray or fog, foam, Carbon dioxide or halon		
<b>SPECIAL PROCEDURES:</b>	If possible remove containers from fire area without risk. Spray water from as far a distance as possible.		

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<b>FLASHPOINT (°C) &amp; METHOD:</b>	NAV	<b>AUTO IGNITION TEMPERATURE (°C)</b>	NAP
<b>LOWER FLAMMABLE LIMIT (% by volume):</b>	NAP	<b>UPPER FLAMMABLE LIMIT (% by volume):</b>	NAP
<b>SENSITIVITY TO IMPACT:</b>	Some evidence	<b>SENSITIVITY TO STATIC DISCHARGE:</b>	No evidence
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>			

## SECTION 5 – REACTIVITY DATA

<b>CHEMICAL STABILITY:</b>	Stable under normal conditions		
<b>INCOMPATIBILITY:</b>	Strong Alkalis	<b>CORROSIVE BEHAVIOUR:</b>	Corrosive
<b>REACTIVITY AND UNDER WHAT CONDITIONS:</b>	Keep away from ignition sources, shock, water/moisture, heat and incompatible materials.		
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	See hazardous combustion products (Section 4).		

## SECTION 6 – TOXICOLOGICAL PROPERTIES

<b>ROUTES OF ENTRY:</b>									
<b>SKIN CONTACT:</b>	Yes	<b>SKIN ABSORPTION:</b>	Yes	<b>EYE CONTACT:</b>	Yes	<b>INHALATION:</b>	No	<b>INGESTION:</b>	Yes
<b>EFFECTS OF ACUTE EXPOSURE TO PRODUCT:</b>									
<b>INGESTION:</b>	Ingestion of large amounts may cause gastrointestinal irritation characterized by abdominal cramps, nausea, vomiting and bloody diarrhea. Ingestion may also cause headaches, labored breathing, confusion, dizziness, convulsions and collapse. Other symptoms may include blue lips or fingernails and blue skin. The product may also cause effects on the blood resulting in the formation of methaemoglobin.								
<b>INHALATION:</b>	NAP								
<b>EYE CONTACT:</b>	May cause eye irritation								
<b>SKIN CONTACT:</b>	May cause skin irritation								
<b>EFFECTS OF CHRONIC EXPOSURE:</b>									
Chronic exposure may cause kidney damage, and central nervous system depression (headache and mental impairment). Chronic dermatitis or an allergic skin sensitization may also develop from repeated exposure. Other symptoms include anemia and the formation of methaemoglobin. Inorganic phosphorus compounds may cause irritation and hemorrhages in the stomach as well as liver damage. Bone structure may be attacked, especially the jaw and teeth.									
<b>EXPOSURE STANDARDS:</b>									
<b>MUTAGENICITY:</b>	NAV								
<b>REPRODUCTIVE HAZARD:</b>	NAV			<b>TERATOGENICITY:</b>	NAV				
<b>IRRITANCY:</b>	Yes			<b>SENSITIZATION:</b>	Yes				
<b>SYNERGISTIC PRODUCTS:</b>	NAV								

## SECTION 7 – PREVENTIVE MEASURES

<b>PERSONAL PROTECTIVE EQUIPMENT:</b>	<p><b>Hands wear:</b> Water resistant rubber type gloves (latex, nitrile, PVC).</p> <p><b>Respirator:</b> Wear- NIOSH approved filter cartridge to remove avoid inhalation of vapours.</p> <p><b>Eye:</b> Wear safety goggles.</p> <p><b>Footwear:</b> Wear work boot/rubber boots.</p> <p><b>Clothing:</b> Long sleeve and pants - no special clothing required.</p>
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<b>ENGINEERING CONTROLS:</b>	General mechanical ventilation is adequate, minimize vapour generation.
<b>HANDLING PROCEDURES:</b>	Do not handle unless safety precaution have been read and understood, avoid eye and skin contact. Avoid inhalation of vapours. Do not puncture, drag or slide container.
<b>STORAGE REQUIREMENTS:</b>	Store in cool, dry area and well ventilated area. Keep container closed.
<b>LEAK AND SPILL PROCEDURE:</b>	Wear necessary personal protective equipment during clean-up, vacuum, avoid creating splash. Place in properly labeled containers for later disposal.
<b>WASTE DISPOSAL:</b>	Disposal in accordance with Federal, Provincial & Municipal waste regulations.

## SECTION 8 – FIRST AID MEASURES

<b>INHALATION:</b>	Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped, assist breathing with oxygen. Obtain medical assistance immediately.
<b>SKIN CONTACT:</b>	Remove contaminated clothing. Wash affected area with water for a minimum of 15 minutes. Obtain medical attention if irritation or redness persists.
<b>EYE CONTACT:</b>	Flush eyes thoroughly while holding both upper and lower eye lids for a minimum of 15 minutes. Obtain medical attention.
<b>INGESTION:</b>	Do not attempt to give anything by mouth to unconscious victim. If victim is alert and not convulsing, rinse mouth and give water to dilute material. Do not induce vomiting. If vomiting occurs, have victim lean forward with head down to avoid breathing in vomit, rinse mouth. Obtain medical attention immediately.

## SECTION 9 – DEPARTMENT OF TRANSPORTATION

### SHIPPING INFORMATION

**US and Canada:** Not regulated

**International Shipping:** Not regulated

**TDG:** Not regulated.

**IATA:** Not regulated

## SECTION 10 – PREPARATION DATE OF MSDS

**PREPARED BY:** Agrisol Manufacturing Inc.

220 – 7565, 132 Street,

Surrey, BC, V3Z 1K7

Canada

**BUSINESS NUMBER:** 604-805-2417

**DATE:** November, 2015

**ADDITIONAL INFORMATION:** At the time of preparation, the information and data contained in this MSDS are believed to be accurate and have been compiled from sources that are believed to be reliable.