WINFIELD UNITED

Safety Data Sheet

Max-In Vine & Vegetable with Micronutrients (CAN)

SECTION 1: IDENTIFICATION

Product Name:	Max-In Vine & Vegetable with Micronutrients
Product ID/Unity #:	10127699
Common Name:	Liquid fertilizer
Chemical Description:	Mixture of secondary and micro nutrients
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:	Initial Supplier:	MEDICAL EMERGENCY TELEPHONE NUMBER:
WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589, USA	WINFIELD UNITED CANADA, ULC 101-302 Wellman Lane Saskatoon, Saskatchewan S7T-0J1, CAN 1-306-249-5112	1-877-424-7452 (24hrs)

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

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Amber to light brown liquid with slight organic odor. Causes moderate but temporary eye and skin irritation.

POTENTIAL HEALTH EFFECTS:
Eyes: Causes moderate but temporary eye irritation.
Skin: Causes moderate but temporary skin irritation.
Inhalation: May cause irritation of the upper respiratory tract.
Ingestion: May cause gastric upset if swallowed.
Preexisting Conditions: Preexisting skin conditions may be aggravated by exposure to product.
Chronic Health Effects: Boric acid is a known reproductive toxicant. Prolonged or repeated oral exposure may have a negative impact on fertility and the reproductive system.

Carcinogenicity	NTP: Not listed	IARC: Not listed	OSHA: Not listed

CLASSIFICATION: Skin Irritation Category 2; Eye Irritation Category 2A; Reproductive Toxicity Category 2

SIGNAL WORD: WARNING

HAZARD STATEMENTS:
Causes skin irritation.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.

Percent of product with unknown toxicity: <7.0%

PRECAUTIONARY STATEMENTS:

Prevention:	Wash hands thoroughly after handling. Read the entire label before product use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection and face protection.
Response:	If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse. 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 exposed or concerned: Get medical attention.
Storage:	Store in a secured area.
Disposal:	Dispose of contents/container in accordance with Federal, provincial and local regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% (wt)	CAS Reg. #
Boric Acid	7.0 – 8.0%	10043-35-3
Zinc chloride	3.5 – 4.5%	7646-85-7
Monoethanolamine	2.5 – 3.0%	141-43-5
Manganese nitrate	2.0 – 3.0%	10377-66-9
See Section 8 for exposure limits.		

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:	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.
Eyes:	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. Seek medical attention if irritation persists.

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water fog, foam, carbon dioxide, dry chemical
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 dioxide, carbon monoxide and toxic oxides of sulfur and chlorine. Toxic airborne manganese, boron and zinc compounds may also be present upon decomposition.
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: Do not allow spilled product to enter sewers or waterways.
Methods for Containment: Contain spilled product by diking area with sand or earth.
Methods for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite or other appropriate material. Vacuum, scoop, or sweep up material and place in a container for disposal. Do not place spilled material back in original container.

SECTION 7: HANDLING AND STORAGE

Handling: Ensure adequate ventilation during handling and use. 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 cool, dry areas away from children, food and feed products in an area away from incompatible substances. Ensure that storage area is secured. Protect packaging from physical damage. Protect from exposure to fire. Maintain product above minimum storage temperature. Do not store in aluminum or metal vessels.
Minimum Storage Temperature: 4^{o}C (40°F)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component:	OSHA PEL	ACGIH TLV	NIOSH REL/IDLH
Boric acid (CAS# 10043-35-3)		2 mg/m3 (TWA) 6 mg/m3 (STEL)	
Monoethanolamine (CAS# 141-43-5)	3 ppm, 6 mg/m3 (TWA) 6 ppm, 15 mg/m3 (STEL)	3 ppm (TWA) 6 ppm (STEL)	3ppm, 8 mg/m3 (TWA) 6 ppm, 15 mg/m3 (STEL)
Zinc chloride (CAS# 7646-85-7)	1 mg/m3 TWA (fume)	1 mg/m3 TWA (fume) 2 mg/m3 STEL (fume)	1 mg/m3 TWA (fume) 50 mg/m3 IDLH (fume)
Manganese inorganic compounds	5 mg/m3 (CEIL)	0.2 mg/m3 TWA	1 mg/m3 TWA 3 mg/m3 ST

Respiratory Protection: For most well-ventilated conditions, no respiratory protection should be needed. If airborne concentrations exceed exposure limits, use a NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates and organic vapors.

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

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Protective Gloves: Wear chemically protective gloves to prevent exposure to skin.
Eye Protection: To avoid contact with eyes, wear chemical safety goggles or safety glasses and full face shield. Contact lenses are not protective eye devices. An emergency eyewash or water supply should be readily accessible 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:	Liquid	Specific Gravity (H_2O=1):	1.18 (typical)
Vapor Pressure (mm Hg):	Not determined	Melting Point/Freezing Point:	Not determined
Vapor Density (Air=1):	Not determined	Boiling Point/Range:	Not determined
Solubility in Water (wt %):	Miscible	pH:	4.7 – 4.8
Viscosity:	Not determined	Flash Point:	Not applicable
Appearance and odor:	Amber to light brown liquid with slight organic odor		

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
Incompatible Materials: Strong oxidizers
Hazardous Decomposition Products: Under fire conditions: Carbon dioxide, carbon monoxide and toxic oxides of sulfur. Toxic airborne manganese, boron and zinc compounds may also be present upon decomposition.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Eye Effects:	Likely to cause moderate but temporary eye irritation based upon ingredient information.
Skin Effects:	Likely to cause moderate but temporary skin irritation based upon ingredient information. Estimated LD50 >8,000 mg/kg.
Acute Inhalation Effects:	May cause irritation of the upper respiratory tract.
Acute Oral Effects:	Estimated LD50 >4,000 mg/kg
Specific Target Organ Toxicity:	None known

CHRONIC TOXICITY

Chronic Effects:	None known
Carcinogenicity:	None of the components are anticipated to have a carcinogenic effect.
Mutagenicity:	None of the components are anticipated to have a mutagenic effect.
Teratogenicity:	Boric acid, if ingested in quantities greater than 21.8 mg/kg of body weight per day, may cause damage to an unborn child which in test animals has shown to correct itself in the post natal period.
Reproductive Toxicity:	Boric acid is a known reproductive toxicant. Prolonged or repeated oral exposure may have a negative impact on fertility and the reproductive system. No data is available on the mixture.

POTENTIAL HEALTH EFFECTS:
Eyes: Causes moderate but temporary eye irritation.
Skin: Causes moderate but temporary skin irritation.
Inhalation: May cause irritation of the upper respiratory tract.
Ingestion: May cause gastric upset if swallowed.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Not determined

ECOTOXICITY DATA:

Fish Acute and Prolonged Toxicity:	Not determined
Aquatic Invertebrate Acute Toxicity:	Not determined

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Aquatic Plant Toxicity:	Not determined
Bird Acute and Prolonged Toxicity:	Not determined
Honeybee Toxicity:	Not determined
ENVIRONMENTAL EFFECTS:	
Soil Absorption/Mobility:	Not determined
Persistence and degradability:	Not determined
Bioaccumulative Potential:	Not determined
Other adverse effects:	Not determined

SECTION 13: DISPOSAL CONSIDERATIONS

Waste: Dispose of in accordance with applicable Federal, provincial and local laws and regulations.
Container: Triple rinse and recycle the container or dispose of in accordance with Federal, provincial and local laws and regulations.

SECTION 14: TRANSPORT INFORMATION

DOT (U.S.A. Ground):	This product is not regulated by the U.S. Department of Transportation as a hazardous material for ground shipment in quantities less than 9,368 litres (2,475 gallons). For quantities greater than 9,368 litres (2,475 gallons): UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zinc chloride), 9, PG III, RQ
IMDG (Sea) :	Not Regulated
IATA (Air) :	Not Regulated
TDG (Canada) :	Not Regulated

SECTION 15: REGULATORY INFORMATION

International Inventories
TSCA Inventory: All components are either listed or exempt from listing on the TSCA inventory.
Canadian Domestic Substances List: All components are listed on the DSL.

US Federal Regulations
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 (<3.0%); Zinc compounds (<4.5%)

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 CERCLA hazardous substances through no RQ is established.
Zinc chloride has an RQ of 454 kg (1,000 lbs) reached with 9,368 litres (2,475 gallons) of product.

SECTION 16: OTHER INFORMATION

NFPA HAZARD RATING	Health	2
	Flammability	0
	Reactivity	0
	4= Severe 3= High 2= Moderate 1= Slight 0= Least	

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