SAFETY DATA SHEET
TROUROW™ ATTACK

Printed: 12/18/2024
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Supersedes Revision: 07/29/2022

This SDS complies with the Canadian Hazardous Products Regulations of 2015.

1. Product and Company Identification

Product Code: Z-TRUROWATTACK

Product Name: TROUROW™ ATTACK

Company Name: WINFIELD SOLUTIONS, LLC.
P.O. BOX 64589
St. Paul, MN 55164

Emergency Contact: Chemtrec 1 (800)424-9300
Medical 1 (877)424-7452

Information: Non-Emergency 1 (855)494-6343

Intended Use: For agricultural use only

Synonyms: Chelated micronutrient solution.

2. Hazards Identification

GHS Signal Word: **None**

GHS Hazard Phrases:

GHS Precautionary Phrases:

GHS Response Phrases:

GHS Storage and Disposal Phrases:

Potential Health Effects (Acute and Chronic): Hazards not otherwise classified (HNOC) or not covered by GHS: None.

Inhalation: None.

Skin Contact: May be harmful in contact with skin.

Ingestion: Harmful if swallowed. May cause gastric disturbance, discomfort, diarrhea.

3. Composition/Information on Ingredients

CAS #	Components (Chemical Name)	Concentration	
94095-04-2	Boric acid (H3BO3), reaction products with ethanolamine	<70.0 %	
10102-40-6	Sodium molybdate	< 1.0 %	
525-79-1	Cytokinin (As Kinetin)	< 0.007 %	

4. First Aid Measures

Emergency and First Aid Procedures:	Consult a physician. Show this safety data sheet to the doctor in attendance.
In Case of Inhalation:	Remove victim from exposure to fresh air. Seek medical attention if victim's breathing is difficult.
In Case of Skin Contact:	Take off contaminated clothing and rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
In Case of Eye Contact:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
In Case of Ingestion:	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Do not induce vomiting or give anything by mouth to an unconscious person.
Indication of any immediate medical attention and special treatment needed:	No data available.
Note to Physician:	Treat symptomatically and supportively.

5. Fire Fighting Measures

Flash Point:	NA
Explosive Limits:	LEL: N.A. UEL: N.A.
Autoignition Pt:	
Suitable Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media:	None known.
Fire Fighting Instructions:	Wear self contained breathing apparatus for fire fighting if necessary. Further information: No data available.
Flammable Properties and Hazards:	
Hazardous Combustion Products:	

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures:	In case of a large spill, clear the affected area and protect people. Such releases should be responded to by trained personnel using pre-planned procedures. In the event of an incidental release, minimum Personal Protective Equipment must be worn: latex or rubber gloves and rubber boots, goggles or full face-shield and coveralls or long-sleeved shirt and pants.
Environmental Precautions:	Do not allow to enter drains or waterways.
Steps To Be Taken In Case Material Is Released Or Spilled:	It is necessary to contain the spill into the smallest area possible by diking, scooping, etc. and recover the product into an appropriate container, labeling it accordingly. If product is clean, use it as intended following original label directions; should it get contaminated, salvage for proper disposal as waste. Absorb residual product onto dry carrier such as dirt, sand or any other absorbent material, then collect in covered, labeled containers and dispose of as dry waste in accordance with Federal, State, and Local waste disposal regulations.

7. Handling and Storage

Precautions To Be Taken in Handling: Use with adequate ventilation. Avoid breathing (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Empty containers may contain residual liquid or vapors and therefore should be handled the same as full containers.

Precautions To Be Taken in Storing: Inspect all incoming containers before storage to ensure all are properly labeled and not damaged. Keep containers tightly closed when not in use. Store in a cool, dry place, away from direct sunlight, sources of intense heat or where freezing is possible. Store away from food, feed, clothing materials and living quarters. Whenever possible, place chemicals on secondary containers or diked area. Store a maximum of three pails high; do not stack pallets.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
94095-04-2	Boric acid (H3BO3), reaction products with ethanolamine			
10102-40-6	Sodium molybdate	PEL: 5 mg/m³ as Mo	TLV: 5 mg/m³ as Mo	
525-79-1	Cytokinin (As Kinetin)			

Respiratory Equipment (Specify Type): A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Eye Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Protective Gloves: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact.
Material: Nitrile rubber Minimum layer thickness: 0.11 mm.
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Other Protective Clothing: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Engineering Controls (Ventilation etc.): General ventilation is usually adequate. Local exhaust should be used if needed for safe, comfortable working conditions.
An eye bath and washing facilities should be readily available.

Work/Hygienic/Maintenance Practices: Handle in accordance with good industrial hygiene and safety practice. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove all dirty or contaminated clothing and wash it before reusing, as well as any other PPE.

Environmental Exposure Controls: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters.

9. Physical and Chemical Properties

Physical States:	[ ] Gas [X] Liquid [ ] Solid
Appearance and Odor:	Blue color. No odor.
pH:	6.8 - 8.8
Melting Point:	
Boiling Point:	
Flash Point:	NA
Evaporation Rate:	
Flammability (solid, gas):	Product is non-flammable.
Explosive Limits:	LEL: N.A. UEL: N.A.
Vapor Pressure:	Not established
Vapor Density (vs. Air=1):	Not established
Specific Gravity (Water=1):	1.27 - 1.31
Density:	~ 1.2703 G/ML (~ 10.6 LB/GA)
Solubility in Water:	Miscible
Saturated Vapor Concentration:	
Octanol/Water Partition Coefficient:	
Autoignition Pt:	
Decomposition Temperature:	
Viscosity:	41.90 cP - @ 25C
Explosive Properties:	Product is not explosive.
Information on other hazards:	Not an oxidizer.

10. Stability and Reactivity

Reactivity:	No data available.
Stability:	Unstable [ ] Stable [X]
Conditions To Avoid - Instability:	No data available.
Incompatibility - Materials To Avoid:	Strong oxidizing agents.
Hazardous Decomposition or Byproducts:	No data available. In the event of fire: see section 5.
Possibility of Hazardous Reactions:	Will occur [ ] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	No data available.

11. Toxicological Information

Toxicological Information:
Acute Oral: LD > 5000 mg/kg/bw
Acute Dermal: LD50 > 5050 mg/kg/bw
Acute Inhalation: LC > 2.23 mg/L
Eye Irritation: Minimally Irritating
Skin Irritation: Non-Irritating
Mutagenicity: This product has not been investigated for mutagenic effects.
Embryotoxicity: This product has not been investigated for embryotoxic effects.
Teratogenicity: This product has not been investigated for teratogenic effects.
Reproductive Toxicity: This product has not been investigated for toxic reproductive effects.

Symptoms related to Toxicological Characteristics: No data available.

Sensitization: This product is considered a weak sensitizer.

Chronic Toxicological Effects: The toxicological properties of this material have not been fully investigated.

Carcinogenicity/Other Information: The carcinogenic properties of this product have not been thoroughly investigated. The components of this product are not listed as a carcinogenic by CPDB, IARC, NTP, OSHA, CAL/OSHA and ACGIH.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

General Ecological Information:
No environmental impact studies have been performed with this product.
The available data on this plant nutrient material does not indicate any undue hazard to the environment under anticipated use and storage. All work practices must be aimed at eliminating environmental contamination. Any waste due to spillage or leakage should be contained and disposed of accordingly, see Section 6 "Accidental Release Measures."
Due to its nutritional nature, may cause eutrophication if discharged in bodies of water.

Results of PBT and vPvB assessment: No data available.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other adverse effects: No data available.

13. Disposal Considerations

Waste Disposal Method: This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local waste regulatory authority. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Dispose of empty container in a sanitary landfill or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Avoid contaminating water by disposal of equipment wash waters or other product wastes. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3.

14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not Regulated. Trade Name: TRUROW ATTACK
DOT Hazard Class:
UN/NA Number:

LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Not Regulated. Trade Name: TRUROW ATTACK
UN Number:
Hazard Class: **TDG Classification:**

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Not Regulated. Trade Name: TRUROW ATTACK
UN Number: **Packing Group:**
Hazard Class:
IMDG MFAG Number: N/A

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not Regulated. Trade Name: TRUROW ATTACK
UN Number: **Packing Group:**
Hazard Class:

Additional Transport Information: Placards / Markings:

Emergency Response Guide Number: N.A

Reportable Quantity: N.A.

15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
94095-04-2	Boric acid (H3BO3), reaction products with ethanolamine	No	No	No
10102-40-6	Sodium molybdate	No	No	No
525-79-1	Cytokinin (As Kinetin)	No	No	No

CAS #	Components (Chemical Name)	Canadian NPRI	Canadian Toxic	Canadian DSL
94095-04-2	Boric acid (H3BO3), reaction products with ethanolamine	No	No	No
10102-40-6	Sodium molybdate			
525-79-1	Cytokinin (As Kinetin)	No	No	Yes

Regulatory Information: TSCA Inventory: In compliance with inventory requirements for commercial purposes.

16. Other Information

Revision Date: 12/18/2024 **Previous revision:** 07/29/2022

Additional Information About This Product: No data available.

Company Policy or Disclaimer: