

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Take Off™ Booster
Product Number: FFN-01166
Other Information: 0-0-6
Product Use: Foliar or Soil Nutrient

Supplier Information: Verdesian Life Sciences, U.S., LLC
 1001 Winstead Drive
 Cary, NC 27513
 1-800-868-6446

Emergency Number: 1-800-535-5053 INFOTRAC

2. HAZARDS IDENTIFICATION

CLASSIFICATION

Serious eye damage/eye irritation	Category 1
Skin corrosion/irritation	Category 1A
Skin sensitization	Category 1

SIGNAL WORD:

DANGER

HAZARD STATEMENTS:

Causes severe skin burns and eye damage. May cause an allergic skin reaction.



HAZARDS NOT OTHERWISE CLASSIFIED

May be harmful if swallowed.

PRECAUTIONARY STATEMENTS

Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace.

Immediately call a POISON CENTER or doctor/physician. For specific treatment, see Section 4. First Aid Measures.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/show. Wash contaminated clothing before reuse. If skin irritation or rash occurs, get medical advice/attention.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

Store locked up. Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	% BY WEIGHT
Proprietary Blend	Proprietary	<25

If Chemical Name/CAS No is "Proprietary" and/or Weight % is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First Aid Measures:**

General Advice: Immediate medical attention is required. Provide this SDS to medical personnel for treatment.

If in Eyes: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. See immediate medical attention/advice.

If Swallowed: Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

If on Skin or Clothing: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Seek immediate medical attention/advice. May cause an allergic skin reaction.

If Inhaled: Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get medical attention immediately if symptoms occur.

Most important symptoms and effects: Burning sensation. Itching. Rashes. Hives.

Recommendations for immediate medical care and special treatment, if needed:

Note to Physician: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. May cause sensitization of susceptible persons. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use extinguishing media suitable for surrounding materials. Dry chemical, carbon dioxide, foam, water spray or fog.

Specific Hazards Arising from the substance/mixture during a fire: The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. May cause sensitization by skin contact.

Uniform Fire Code Corrosive: Other-Liquid

Protective equipment and precautions for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain.

Methods for Containment: Prevent further leakage or spillage if safe to do so. Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Clean-Up: Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. See Section 13: DISPOSAL CONSIDERATIONS for more information.

7. HANDLING AND STORAGE**Precautions for Safe Handling****Handling:**

Avoid contact with eyes, skin and clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if product gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Conditions for safe storage, including any incompatibilities

Storage: Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Incompatible Materials: Strong oxidizing agents; bases; acids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Proprietary Ingredient	2(ceiling)*	NE	2 (ceiling)	NE	mg/m ³

NE = Not Established

*vacated

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear faceshield. An emergency eyewash or water supply should be readily accessible to the work area.

Skin and Body Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes, impervious gloves, a chemical resistant apron. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels, which cause exposures in excess of the guidelines listed in Section 8, respiratory protection may be needed (e.g., air-purifying respirator with a high efficiency particulate filter) and must comply with the U.S. Federal OSHA Standard (29 CFR 1910.134) and applicable U.S. State regulations.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) Do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES
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Appearance:	Clear to light yellow liquid
Odor:	Odorless
Odor threshold:	No data available
pH:	3.8
Melting point/freezing point:	No data available
Initial boiling point and boiling range	212° F (100° C)
Flash point:	9034° F (5001° C)
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	No data available
Solubility(ies):	Miscible
Partition coefficient: n-octanol/water:	No data available
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Excessive heat. Do not store near heat or flame. Avoid exposure to air or moisture over prolonged periods.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Thermal decomposition can lead to release of irritating gases and vapors, including oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Specific test data for the substance or mixture is not available.

Likely Routes of Exposure: Inhalation, ingestion, eye and skin contact.

Inhalation: Corrosive by inhalation (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract.

Eye Contact: Corrosive, causes burns (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.

Skin Contact: Corrosive, causes burns (based on components).

Ingestion: Corrosive, causes burns (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Medical Conditions Aggravated by Exposure: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

Component Information:

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Proprietary Ingredient	= 214 mg/kg (Rat)	-	-

Subchronic (Target Organ) Effects: No data available.

Carcinogenicity / Chronic Health Effects: No data available.

Reproductive Toxicity: No data available.

Developmental Toxicity: No data available.

Germ Cell Mutagenicity: No data available.

Description of Symptoms: Please see Section 4 of this SDS for symptoms.

Assessment Carcinogenicity: None listed with ACGIH, IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Harmful to aquatic life.

Component Information:

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganism	Daphnia Magna (Water Flea)
Proprietary Ingredient	No data available	96h LC50: = 80 mg/L (Gambusia affinis)	No data available	No data available

Persistence and Degradability: No data available
Bioaccumulation: No data available
Mobility in Soil: No data available
Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Container Disposal Method:

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

DOT:

Non Regulated

IMDG:

Non Regulated

IATA:

Non Regulated

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA Inventory: Listed

SARA Hazard Notification/Reporting:

Hazard Categories under Criteria of SARA Title III Rules (40 CFR Part 370.66):

Immediate

Section 313 Toxic Chemical(s):

This material does not contain any chemical components that are subject to the reporting requirements established by SARA Title III, Section 313.

Reportable Quantity (RQ) under U.S. CERCLA:

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Proprietary Ingredient	1000 lb	None	< 9.0% in formulation

RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

16. OTHER INFORMATION**National Fire Protection Association (NFPA) Hazard Rating:****Health Hazards: 3 Flammability: 0 Instability: 0 Special Hazards: N/A****HMIS****Health Hazards: 3 Flammability: 0 Physical Hazards: 0 Personal Protection: X**

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Key to abbreviations:

ACGIH = America Conference of Governmental Industrial Hygiene

IARC = International Agency for Research on Cancer

N/A = Not applicable

NDA = No data available

NE = Not Established

NTP = National Toxicology Program

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits

TWA = Time Weighted Average

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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