



SAFETY DATA SHEET

Tidal Grow® GENMAX

1. IDENTIFICATION

Product Name: Tidal Grow® GENMAX
EPA Reg. No. 93966-1
Recommended Use: Seed Treatment; See product label for a complete list of uses and use sites.
Restrictions on Use: See product label for any restrictions on the use of this product.
Chemical Name: Chitosan
Distributed by: Tidal Vision Products, Inc.
3710 Iron Gate Rd
Bellingham, WA 98226

For Medical Exposure Concerns, Contact the Poison Control Center: 1-800-222-1222

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Light yellow to brown liquid with slight odor

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Inhalation Toxicity	Category 4
Eye Damage/Irritation	Category 2B



Signal Word: WARNING

Hazard Statement(s): Harmful if inhaled.
Causes eye irritation.

Precautionary Statement(s):
Prevention: Avoid breathing mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling.
Response: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor for treatment advice if you feel unwell.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: seek medical attention.
Storage: No statements required.
Disposal: No statements required.

The following percentage of the mixture consists of components with unknown hazards regarding the acute toxicity: 0%

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Chitosan	9012-76-4	0.25%

*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).



4. FIRST AID MEASURES

IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call poison control center or doctor for treatment advice
IF ON SKIN OR CLOTHING:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person
Most important symptoms/effects, acute and delayed: Eye irritation including redness, itching and tearing.	

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water fog, foam, dry chemical, carbon dioxide (CO ₂), water spray
Unsuitable extinguishing media	None known
Hazardous Combustion Products:	Thermal decomposition may include toxic and irritating gases.
Special Protective Equipment & Precautions:	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.
Unusual Fire & Explosion Hazards:	None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	See Section 8 for personal protection equipment.
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.
Other Information:	None known

SECTION 7: HANDLING AND STORAGE

Handling:	RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND HANDLERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. 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 a secured area away from children, feed and food products. Store in original container only and in a cool, well-ventilated dry place above the minimum storage temperature.
Storage Temperature (Min/Max):	Protect from freezing
Product Incompatibilities:	Strong bases, strong oxidizing agents and strong reducing agents

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
Nuisance particulate (liquefied mist)		10 mg/m ³ TWA	

Engineering Controls:	Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.
Respiratory Protection:	For most well-ventilated conditions, no respiratory protection should be needed. If airborne concentrations exceed permissible levels or if a pre-existing respiratory condition exists, use a NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates.
Eye Protection:	Wear chemical goggles or safety glasses and full face shield. Contact lenses are not protective eye devices.
Protective Gloves:	Wear chemically protective gloves.
Other Protective Clothing:	Wear long-sleeve shirt, long pants and shoes plus socks to prevent skin contact.
General Safety Measures:	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

Appearance:	Clear to light brown liquid	Upper/Lower Flammability Limits:	Not determined
Odor:	Slight	Vapor Pressure:	Not determined
Odor Threshold:	Not determined	Vapor Density:	Not determined
pH:	4–5	Relative Density:	1.015 – 1.03 g/cm ³
Melting /Freezing Point:	Not determined	Solubility (water):	Soluble in water lightly acid
Boiling Point/Range:	>212° F (>100°C)	Partition Coefficient:	Not determined
Flash Point:	Not combustible	Auto-ignition Temperature:	Not determined
Evaporation Rate:	Not determined	Decomposition Temperature:	Not determined
Flammability:	Not applicable	Viscosity:	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	None known
Chemical Stability:	Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions:	Will not occur
Conditions to Avoid:	Excessive heat
Incompatible Materials:	None expected
Hazardous Decomposition Products:	Thermal decomposition may include toxic and irritating gases.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure:	Eye irritation including redness, itching and tearing.
Oral LD50:	>5000 mg/kg (rat)
Dermal LD50:	>5000 mg/kg (rabbit)
Inhalation LC50:	>2.0 mg/L (rat)
Eye Irritation/Damage:	Moderate irritant
Skin Corrosion/Irritation:	Slightly irritating
Skin Sensitization:	Does not elicit as skin sensitization reaction (guinea pig).
Chronic/Sub-chronic Toxicity:	No data available
Mutagenicity:	No data available
Reproductive Toxicity:	No data available
Neurotoxicity:	No data available
Target Organs:	No data available
Aspiration Hazard:	None

Carcinogenicity:

Chemical Name	ACGIH	IARC	NTP	OSHA
None listed				

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

Fish Toxicity:	No data available
Aquatic Invertebrate Toxicity:	No data available
Aquatic Plant Toxicity:	No data available
Avian Toxicity:	No data available
Honeybee Toxicity:	No data available

ENVIRONMENTAL EFFECTS:

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

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:	Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.
Container Disposal:	Triple rinse and recycle the container or dispose of in accordance with Federal, state and local laws and regulations. See pesticide label for full instructions on container disposal.
RCRA Characteristics:	It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORTATION INFORMATION

DOT (Ground):	This product is not regulated by the U.S. Department of Transportation as a hazardous material for ground shipment.
IMDG (Sea):	UN3082, Environmentally hazardous substance, liquid, N.O.S. (chitosan), 9, PGIII, Marine Pollutant
IATA	UN3082, Environmentally hazardous substance, liquid, N.O.S. (chitosan), 9, PGIII, Marine

(Air): Pollutant

SECTION 15: REGULATORY INFORMATION**TSCA Inventory:** This product is exempt from TSCA listing requirements as it is solely for FIFRA regulated use.**EPA Labeling Information (FIFRA):** This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION: Causes moderate eye irritation. Avoid contact with eyes. Wash thoroughly with soap and water after handling.

SARA Title III Information:**Section 302 – Extremely hazardous substances:** None listed
Section 311/312 – Hazard Categories: Immediate (Acute)**Section 313** – This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %	SARA 313 – Threshold Values %
None listed			

CERCLA – This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
None listed			

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
None listed		

U.S. STATE RIGHT-TO-KNOW REGULATIONS:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
None listed			

SECTION 16: OTHER INFORMATION

NEPA	Health Hazards 1	Flammability 0	Instability 0	Special Hazards – None

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