

SAFETY DATA SHEET**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: **STARGUS®**

USEPA REGISTRATION NO: 84059-28

SUPPLIER: ProFarm Group

ADDRESS: 1530 Drew Avenue, Davis CA, 95618

EMERGENCY PHONE: **INFOTRAC Chemical Response System**

US and Canada 1-800-535-5053 (24 hours)
International 1-352-323-3500 (24 hours)

OTHER CALLS: ProFarm Group 530-750-2800 (9am to 5 pm PST)

FAX PHONE: ProFarm Group 530-750-2808

PRODUCT USE: Bio-based Fungicide

SECTION 2: HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW:**

Causes skin irritation
Toxic to aquatic life

HAZARD SYMBOLS:

Pictogram



Signal Word

Warning**HAZARD STATEMENT(S):**

H315 Causes skin irritation
H401 Toxic to aquatic life

PRECAUTIONARY STATEMENTS

P264 Wash exposed areas thoroughly after handling

P273 Avoid release to the environment

P280 Wear protective gloves

P302 + P352 IF ON SKIN: Wash with plenty of water and soap or detergent.

P321 Specific treatment (see first aid instruction on this document and/or the product label)

P332 + P313 If skin irritation occurs: Get medical attention

P362 + P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of in accordance with all applicable local, regional, national, and international regulations.

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POTENTIAL ROUTES OF ENTRY: Oral, eye, and inhalation.

CARCINOGENICITY:

OSHA: Not listed ACGIH: Not listed NTP: Not listed. IARC: Not listed

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

SYNONYM: MBI-110-AF5, MBI-110 EP AF5, MBI-110 EP AF8, MBI-110, BIO_CNTR_0075

ACTIVE INGREDIENT: *Bacillus amyloliquifaciens* strain F727 in spent fermentation media, minimum 1 x 10⁹ CFU/mL

EXPOSURE LIMITS: None Established

<u>COMPONENT</u>	<u>CAS NUMBER</u>	<u>PERCENT BY WEIGHT (%)</u>
<i>Bacillus amyloliquifaciens</i> strain F727 in spent fermentation media	NA	92.25-99.29 %
Other (inert ingredients)	Several (Not applicable)	Balance

SECTION 4: FIRST AID MEASURES

EYES: Hold eye open and rinse slowly and gently with water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Do not use an eye ointment. Call poison control center or doctor for treatment advice.

SKIN: Remove contaminated clothing. Rinse skin immediately with plenty of water for at least 15-20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION: 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 by a poison control center or physician. Do not give anything by mouth to an unconscious person.

INHALATION: Remove person to fresh air. If the 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 treatment.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% BY VOLUME)

UPPER: Not applicable.
 LOWER: Not applicable.

FLASH POINT: Not applicable.
 AUTOIGNITION TEMPERATURE: Not applicable.

NFPA HAZARD CLASSIFICATION		
HEALTH: 1	FLAMMABILITY: 0	REACTIVITY: 0
HMIS HAZARD CLASSIFICATION		
HEALTH: 1	FLAMMABILITY: 0	REACTIVITY: 0

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EXTINGUISHING MEDIA: Use extinguishing media appropriate for the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

HAZARDOUS DECOMPOSITION PRODUCTS: None

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Wear suitable clothing such as eye protection, long-sleeved shirt, pants and shoes with socks. If spilled, contain - prevent run off into drains and waterways. Absorb liquid with an inert absorbent material. Seal absorbent material in a closed labeled container and dispose of in accordance with local ordinances.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Store in the closed, original container in a well-ventilated area out of direct sunlight. Keep containers closed when not in use. Empty container completely and dispose of in accordance with all applicable federal, state, and local environmental regulations.

OTHER PRECAUTIONS: No special precautions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Spill controls should be provided for working with large quantities.

VENTILATION: No TLV assigned. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and aerosols below the exposure levels. Ensure that eyewash stations and safety showers are proximal to the work-station location.

RESPIRATORY PROTECTION: Use a dust/mist filtering respirator meeting NIOSH standard of at least N-95, R-95 or P-95.

EYE PROTECTION: Safety goggles or glasses with side shields advisable when handling this product.

SKIN PROTECTION: Wear gloves made of Latex or other impervious material.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Clothing to prevent prolonged skin contact as needed such as long-sleeved shirt, long pants and shoes with socks.

WORK HYGIENIC PRACTICES: Wash any contamination from skin or eyes immediately. Wash hands and exposed skin before eating, drinking, smoking, after work, or using the toilet.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	Creamy tan to brown
ODOR:	Musty
pH:	6 to 7
DENSITY:	1 g/ mL
SOLUBILITY IN WATER:	Miscible in water

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BOILING POINT/RANGE:	Not determined
FREEZING/MELTING POINT:	Not determined
FLASH POINT:	Not determined
EVAPORATION RATE:	Not determined
FLAMMABILITY (SOLID. GAS):	Not determined
UPPER FLAMMABILITY LIMITS:	Not determined
LOWER FLAMMABILITY LIMITS:	Not determined
VAPOR PRESSURE:	Not determined
VAPOR DENSITY:	Not determined
RELATIVE DENSITY:	Not determined
SOLUBILITY IN OTHER SOLVENTS:	Not determined
PARTITION COEFFICIENT:	Not determined
AUTOIGNITION TEMPERATURE:	Not determined
DECOMPOSITION TEMPERATURE:	Not determined
KINEMATIC VISCOSITY:	Not determined
DYNAMIC VISCOSITY:	Not determined
EXPLOSIVE PROPERTIES:	Not determined
OXIDIZING PROPERTIES:	Not determined

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable.

INCOMPATIBILITY (MATERIAL TO AVOID): None known

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known

HAZARDOUS POLYMERIZATION: Not known to occur

CONDITIONS TO AVOID (POLYMERIZATION): None

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY LD ₅₀ :	>5000 mg/kg (rat). Not categorized
ACUTE DERMAL TOXICITY LD ₅₀ :	>5000 mg/kg (rat). Not categorized
ACUTE INHALATION LC ₅₀ :	>5.19 mg/L (rat). Not categorized
EYE IRRITATION:	Minimally irritating (rabbit). Not categorized
SKIN IRRITATION:	Non-irritating (rabbit). Not categorized
SKIN SENSITIZATION:	Not known.
IV PATHOGENICITY:	Non-toxic; non-pathogenic (dose of 2.9 x 10 ⁹ CFU/rat) Category 4

SECTION 12: ECOLOGICAL INFORMATION

No toxic effects demonstrated on adult honeybees when exposed orally to a limit dose of 1000 µg TGAI/bee after 16 days of post exposure observation (OPPTS 885.4380).

This product has currently not been evaluated for acute and long-term toxicity to avian life, freshwater aquatic life, and beneficial insects.

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Prior to treating entire crop where the release of beneficial insects serves as part of an Integrated Pest Management (IPM) program, consult with an extension specialist, a pest control advisor (PCA) or with the product manufacturer.

For terrestrial uses only: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

Sensitive areas: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Do not allow residue from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals. As a precaution, do not allow product to drift to blooming crops or weeds if bees are foraging. Minimize spray drift away from the target area to reduce effects to other non-target insects

Bioconcentration potential: This material is not expected to bioconcentrate in organisms.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not reuse containers. Dispose of in accordance with all applicable federal, state, and local environmental regulations.

SECTION 14: TRANSPORTATION INFORMATION

U.S. DOT: Not regulated

IATA DGR: Not regulated

IMDG: Not regulated

Freight Classification: Fungicide. See NMFTA code.

SECTION 15: REGULATORY INFORMATION

INTERNATIONAL REGULATIONS

TSCA: Exempt

U.S. FEDERAL REGULATIONS

CERCLA: Not applicable.

SARA TITLE III HAZARD CLASSIFICATION SECTIONS 311 AND 312:

Immediate (acute) Health: None

Delayed (chronic) Health: None

Fire: None

Sudden Release of Pressure: None

Reactivity: None

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SARA 313: Not determined

U.S. STATE REGULATIONS: None

US STATE RIGHT-TO-KNOW REGULATIONS: None

California Proposition 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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: WARNING. Causes moderate eye irritation.

SECTION 16: OTHER INFORMATION

SPECIAL HAZARDS: Not Determined

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DISCLAIMER: IN NO EVENT SHALL PROFARM GROUP BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES. THE DATA PROVIDED IS FOR GENERAL INFORMATION ONLY AND IS NOT INTENDED AS A COMPREHENSIVE GUIDE CONCERNING HAZARDS THAT MAY BE ASSOCIATED WITH THIS PRODUCT. USER ASSUMES ALL RESPONSIBILITY FOR FOLLOWING PROPER SAFETY PROTOCOL AND CONSULTING TRAINED PERSONNEL FOR CONTROL AND CONTAINMENT.