

Product name: SmartFresh Inbox

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AGROFRESH INC. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: SmartFresh Inbox

Recommended use of the chemical and restrictions on use

Identified uses: Plant growth regulator

COMPANY IDENTIFICATION

AGROFRESH INC.
ONE WASHINGTON SQUARE
510-530 WALNUT STREET, SUITE 1350
PHILADELPHIA PA 19106-3622
UNITED STATES

Customer Information Number:

+01 866 206 1001
FGLAGFR@AgroFresh.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: +1 866 519 4752 ACCESS CODE 334767

Local Emergency Contact: +1 866 519 4752

2. HAZARDS IDENTIFICATION

Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Combustible dust

Label elements

Signal word: **WARNING!**

Hazards

May form combustible dust concentrations in air.

Precautionary statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Take precautionary measures against static discharge.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Mixture of solid organic compounds.

This product is a mixture.

Component	CASRN	Concentration
Dextrose	50-99-7	99.7 - 99.9 %
1-Methylcyclopropene	3100-04-7	0.01 - 0.02 %

4. FIRST AID MEASURES

Description of first aid measures

Inhalation: Move to fresh air.

Skin contact: Wash with water and soap as a precaution. If skin irritation persists, call a physician.

Eye contact: Rinse with plenty of water. If eye irritation persists, consult a specialist.

Ingestion: Drink 1 or 2 glasses of water. Consult a physician if necessary. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use the following extinguishing media when fighting fires involving this material: Carbon dioxide (CO₂) Dry powder Foam Water spray

Unsuitable extinguishing media: Do NOT use water jet. May spread fire.

Special hazards arising from the substance or mixture

Hazardous combustion products: Combustion products may include and are not limited to: Carbon dioxide. Carbon monoxide.

Unusual Fire and Explosion Hazards: Dusts at sufficient concentrations can form explosive mixtures with air.

Advice for firefighters

Fire Fighting Procedures: DO NOT use a solid stream of water. A solid stream of water directed at this material may create a potentially explosive airborne dust mixture. Contain run-off. Remain upwind. Avoid breathing smoke. Cool closed containers exposed to fire with water spray.

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations. If exposed to material during clean-up operations, see SECTION 4, First Aid Measures, for actions to follow.

Environmental precautions: CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Methods and materials for containment and cleaning up: Keep spectators away. Avoid breathing dust. Transfer spilled material to suitable containers for recovery or disposal.

Removal of ignition sources: Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment. Ignition sources can include and are not limited to pilot lights, flames, smoking, sparks, heaters, electrical equipment, and static discharges.

Dust Control: Use care to minimize generation of airborne dust.

7. HANDLING AND STORAGE

Precautions for safe handling: Do not handle material near food, feed or drinking water. Avoid high concentrations of dust in air and accumulation of dust on equipment. An airborne dust of this material can create a dust explosion. When handling and processing this material local exhaust ventilation may be required to control dust and reduce exposure to vapors. To prevent dust explosions employ bonding and grounding for operations capable of generating static electricity. Protect all equipment from explosions by following applicable guidelines. For electrical equipment follow local codes and applicable electrical classification.

Conditions for safe storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid all ignition sources. Do not store this material near food, feed or drinking water. Completely empty bag into application equipment. Dispose empty bag in a sanitary landfill or by incineration as allowed by state and local authorities. Avoid breathing smoke.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
1-Methylcyclopropene	IHG	TWA	0.3 ppm
	IHG	C	1 ppm

Exposure controls

Engineering controls: Use local exhaust ventilation with a minimum capture velocity of 150 ft/min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of "Industrial Ventilation: A Manual of Recommended Practice" published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Protective measures: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. End users must follow label instructions when using this product.

Individual protection measures

Eye/face protection: Chemical resistant goggles must be worn. Eye protection worn must be compatible with respiratory protection system employed.

Skin protection

Hand protection: Chemical-resistant gloves should be worn whenever this material is handled. The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection):
- Polyvinyl chloride-coated glove or other chemical-resistant rubber-coated glove
Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.

Respiratory protection: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Up to 10 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. Up to 50 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) full-facepiece, air-purifying respirator, OR full-facepiece, airline respirator in the pressure demand mode. Above 50 times the exposure limit or Unknown: Wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode, OR full-facepiece, airline respirator in the pressure demand mode with emergency escape provision. Air-purifying respirators should be equipped with NIOSH approved (or equivalent) organic vapor cartridges and N100 filters. If oil mist is present, use R100 or P100 filters.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	powder
Color	white
Odor	No data available
Odor Threshold	No data available
pH	Not applicable

Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	No data available
Flash point	Not applicable
Evaporation Rate (Butyl Acetate = 1)	Not applicable
Flammability (solid, gas)	May form combustible dust concentrations in air.
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor Pressure	Not applicable
Relative Vapor Density (air = 1)	Not applicable
Relative Density (water = 1)	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Dynamic Viscosity	Not applicable
Kinematic Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Molecular weight	No data available
Percent volatility	0 %

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable.

Possibility of hazardous reactions: This material is considered stable. Product will not undergo polymerization.

Conditions to avoid: Avoid dust formation. Avoid static discharge. Heat, flames and sparks.

Incompatible materials: Avoid contact with acids, alkalies and strong oxidizing agents.

Hazardous decomposition products: Hazardous decomposition products formed under fire conditions. Carbon dioxide. Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity

LD50, Rat, > 5,000 mg/kg

Acute inhalation toxicity

Product test data not available.

Skin corrosion/irritation

Essentially nonirritating to skin.

Mechanical injury only.

Serious eye damage/eye irritation

Essentially nonirritating to eyes.

Sensitization

Not a sensitizer.

Specific Target Organ Systemic Toxicity (Single Exposure)

Product test data not available.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Product test data not available.

Carcinogenicity

Product test data not available.

Teratogenicity

Developmental toxicity (rat): no evidence of any developmental effects.

Reproductive toxicity

Product test data not available.

Mutagenicity

Ames mutagenicity: Non-mutagenic

In vivo micronucleus assay (mouse bone marrow cells): Not mutagenic

Aspiration Hazard

Product test data not available.

Additional information

Data for 1-methylcyclopropene:

COMPONENTS INFLUENCING TOXICOLOGY:

Dextrose

Acute inhalation toxicity

The LC50 has not been determined.

Dust may cause irritation to upper respiratory tract (nose and throat).

Specific Target Organ Systemic Toxicity (Single Exposure)

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Repeated excessive exposures may cause
Gastrointestinal irritation.

Carcinogenicity

No relevant data found.

Reproductive toxicity

No relevant data found.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

1-Methylcyclopropene

Acute inhalation toxicity

(No deaths or clinical signs of toxicity were observed at this concentration) LC50, Rat, 4 Hour, gas, > 2.5 mg/l

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Carcinogenicity

No relevant data found.

Reproductive toxicity

No relevant data found.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

General Information

There is no data available for this product.

Toxicity

Dextrose

Acute toxicity to fish

No relevant information found.

1-Methylcyclopropene

Acute toxicity to fish

No relevant data found.

Persistence and degradability

Dextrose

Biodegradability: No relevant information found.

1-Methylcyclopropene

Biodegradability: No relevant data found.

Bioaccumulative potential

Dextrose

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient: n-octanol/water(log Pow): -3.24 Estimated.

1-Methylcyclopropene

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): Pow: 2.03 estimated

Mobility in soil

Dextrose

Partition coefficient (Koc): 10 Estimated.

1-Methylcyclopropene

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 35 - 60 Estimated.

13. DISPOSAL CONSIDERATIONS

Disposal methods: For disposal, incinerate this material at a facility that complies with local, state, and federal regulations.

14. TRANSPORT INFORMATION

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport

Transport in bulk according to Annex I or II of MARPOL 73/78 and the

Consult IMO regulations before transporting ocean bulk

IBC or IGC Code

Classification for AIR transport (IATA/ICAO):

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312
Fire Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

Pennsylvania

Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

United States TSCA Inventory (TSCA)

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

Federal Insecticide, Fungicide and Rodenticide Act

EPA Registration Number: 71297-5

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
Harmful if absorbed through skin

16. OTHER INFORMATION

Other information

The Safety Data Sheet (SDS) augments the label and should not be used in place of regulatory approved product labels which are attached to or accompanying the product container. This SDS provides important health, safety and environmental information for personnel that are manufacturing, distributing, transporting and storing the product, including emergency responders and other product handlers. The label provides information specifically for product users.

Hazard Rating System

HMIS

Health	Flammability	Physical Hazard
1	1	0

Revision

Identification Number: 101138673 / A456 / Issue Date: 02/28/2017 / Version: 3.3

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

C	Ceiling limit
IHG	Industrial Hygiene Guideline
TWA	Time Weighted Average (TWA):

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

AGROFRESH INC. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.