# FROST SHIELD®

# ORGANIC CLIMATIC CROP CONDITIONER

**ROW CROPS • FIELD CROPS • TREES • VINES** 

- Biodegradable Non-Toxic
  - Non-Polluting



MAZ-ZEE S.A. INTERNATIONAL P.O. BOX 365409 NORTH LAS VEGAS, NV 89036 USA PHONE: (800) 775-6123 FAX: (702) 643-5822

www.mazzeeorganics.com



# **ORGANIC CLIMATIC CROP CONDITIONER**

**An Aid to Prevent Freeze & Frost Damage** 



A Cost Effective Micro-Thin Protein Pro-Polymer Coating



**Provides Maximum Freeze and Frost Protection on all Agricultural Crops** 





# WSDA #2066

- SAFE & EASY TO USE
   Frost Shield is a Certified Organic Product.
- Completely Safe on all Agricultural Crops.
- Non-Toxic, Biodegradable & Non-Polluting.
- Frost Shield is Non-Volatile and Nonflammable.

#### Registered U.S. Patent Office

#### **CONTENTS: Organic Ingredients**

Active Ingredients: Organic Co-Polymer
Conjugated Organic Homo Pro-Polymers
30% Polypeptides Enzymes
25.00% Acryletic (CPP) Organic Protein
30.00% Amino Acids Organic Enzymes
15.00% Inert Ingredients Organic Enzymes
NON-PLANT FOOD INGREDIENTS

#### WARRANTY

Because the manufacturer has no control over the dispersing or the use of this product, no warranty is expressed or implied. In no case will the manufacturer be held responsible for damages resulting from failure to use according to specific directions. The buyer will assume all risks and liabilities resulting from the improper handling of this product.

#### DISTRIBUTED BY:



Frost Shield is WSDA Certified.

Frost Shield uses the polymers, proteins, and enzymes from marine and desert plants. Designed through Biotechnology to aid and protect all crops from frost and freeze damage.

#### **Frost Shield Performance**

A bacteria inhabiting the surface of plants contains an active protein (Ina protein) that acts as a catalyst, turning water into ice. The Ina protein attracts moisture or water vapor as the plant transpires. Applied properly, Frost Shield forms a protective permeable micro-thin protein pro-polymer coating, creating a barrier between water and bacteria. The proteins used in Frost Shield have the properties of a natural antifreeze. These properties also counteract the active Ina protein. When applied, these proteins strengthen the plant's ability to prevent frost and ice from occurring. The enzymes in Frost Shield restrict the growth and spreading of the bacterial organisms, preventing further contamination. As temperatures decline, Frost Shields permeable coating contracts, sealing the crop and reducing transpiration. Reduced transpiration also aids plants in maintaining warmer internal temperatures by retaining the warmth of the water lost as plants transpire. As the temperature rises. Frost Shields coating expands to a micro-screen layer, allowing plants to function and mature properly. Frost Shield will not restrict plant growth when temperatures are above freezing. The coating dries completely transparent, leaving no visual residues. Frost Sheild can be used through harvest.

#### **Manufacturers Statement**

Note: When applying Frost Shield to any agricultural crop, always obtain a completely wet and uniform coverage on all sides of the fruit and foliage to ensure maximum protection from freeze and frost damage. Frost Shield may be applied right up to and through harvest. Use a non-ionic spreader to achieve uniform coverage. Frost Shield must be completely dry before temperatures begin to fall. Allow 4 to 6 hours for the application to dry completely. Frost Shield will remain effective for 4 to 6 hours at 26 degrees. Apply every 2 weeks or as new growth appears.

# **Methods of Application**

Frost Shield can be applied through any conventional ground sprayer. Aerial application applied by helicopter or fix wing using enough water to obtain full coverage of the crop.

# **APPLICATION RATES**



# **Deciduous Fruit Trees**

Apples, apricots, cherries, pomegranates, pears, prunes, plums, peaches, nectarines, and other stone fruits.

Apply 3 quarts of Frost Shield per acre for newly planted and

young trees. Apply 4 quarts of Frost Shield per acre for larger or mature trees. Mix with enough surfactant water to achieve a completely wet and uniform coverage. Apply at bud break, bloom and fruiting stages. Apply every 2 weeks, repeat application to protect new growth as it appears.

### **Deciduous Nut Trees**

Almonds, pecan, pistachios, and walnuts
Apply 4-5 quarts of Frost Shield per acre depending
on size of trees. Mix with enough surfactant water to
achieve a completely wet and uniform coverage.
Apply at bud break, bloom and fruiting stages. Apply
every 2 weeks, repeat application to protect new growth
as it appears.



# Grapes

Apply 3 - 4 quarts of Frost Shield per acre, per application. Mix with enough surfactant water to achieve a completely wet and uniform coverage. Apply at bud

break, bloom and fruiting stages. Apply every 2 weeks, repeat application to protect new growth as it appears.



# **Vegetables**

Artichokes, asparagus, broccoli, all bean varieties, brussel sprouts, cabbage, carrots, celery, cauliflower, corn, eggplant, all herb varieties, all

onion varieties, peas, peppers, peanuts, all potato varieties, radish and all other root varieties, spinach, all squash varieties, sugar beets, sugar cane and tomatoes.

Apply 3 - 4 quarts of Frost Shield per acre, per application. Mix with enough surfactant water to achieve a completely wet and uniform coverage. Apply at emergence as needed and up through harvest. Apply every 2 weeks, repeat application as new growth appears.



# **Avocados and All Citrus**

Apply 4 -6 quarts of Frost Shield per acre depending on size of trees. Mix with enough surfactant water to achieve a completely

wet and uniform coverage. Apply every 2 weeks and up through harvest.



#### **Berries**

Blackberries, blueberries, boysenberries, raspberries, strawberries, and other berry crops.

Apply 3 - 4 quarts of Frost Shield per acre, per application. Mix with

enough surfactant water to achieve a completely wet and uniform coverage. Apply at bud break, bloom and fruiting stages. Apply every 2 weeks and up through harvest. Repeat application to protect new growth as it appears.

#### **Melons**

Cantaloupe, casaba, crenshaw, honey dew, watermelon, and other melon varieties.

Apply 3 - 4 quarts of Frost Shield per acre, per application. Mix with enough surfactant water to achieve a completely wet and uniform coverage.

Apply every 2 weeks, repeat application to protect new growth as it appears.

## **Nursery Stock And Green Houses**

Apply 3 - 4 quarts of Frost Shield per acre, per application. Mix with enough surfactant water to achieve a completely wet and uniform coverage. Apply every 2 weeks, repeat application as new growth appears.



#### **MANUFACTURERS STATEMENT**

Note: When applying Frost Shield on all agricultural crop you must always obtain completely wet and uniform coverage on all sides of fruit and foliage to insure maximum protection against freeze and frost damage. Always use the recommended amount of Frost Shield per acre required by the manufacturer for the type of crop to be applied. Frost Shield may be applied right up through harvest. A non-ionic spreader is recommended to obtain uniform coverage. Frost Shield must be completely dry before temperatures begin to fall. Allow 4 to 6 hours for application to dry completely. For best result use FROST SHIELD as a preventive spray. Frost Shield will withstand up to 6 inches of rainfall and remain effective

#### **Methods of Application:**

Frost Shield can be applied through any conventional ground sprayer. Aerial applied by Helicopter, only. Fix wing not recommended.

#### **APPLICATION RATES**

#### **All Citrus and Avocados**

Apply 4 - 6 quarts of Frost Shield per acre depending on size of trees. Mix with enough surfactant water to achieve a completely wet and uniform coverage on all sides of fruit and foliage. Apply every 2 weeks and up through harvest.

#### **Berries**

Blackberries, blueberries, boysenberries, raspberries, strawberries, and other berry crops. Apply 3 - 4 quarts of Frost Shield per acre, per application. Mix with enough surfactant water to achieve a completely wet and uniform coverage on all sides of fruit and foliage. Apply at bud break, bloom and fruiting stages. Apply every 2 weeks and up through harvest. Repeat application to protect new growth as it appears.

# **Grapes-All Varieties**

Apply 3 - 4 quarts of Frost Shield per acre, per application. Mix with enough surfactant water to achieve a completely wet and uniform coverage on all sides of fruit and foliage. Apply at bud break, bloom and fruiting stages. Apply every 2 weeks. Repeat application to protect new growth as it appears.

#### **Deciduous Fruit Trees**

Apples, apricots, cherries, pomegranates, pears, prunes, plums, peaches, nectarines, and other stone fruits. Apply 3 quarts of Frost Shield per acre for newly planted and young trees. Apply 4 quarts of Frost Shield per acre for large or mature trees. Mix with enough surfactant water to achieve a completely wet and uniform coverage on all sides of fruit and foliage. Apply at bud break, bloom and fruiting stages. Apply every 2 weeks, repeat application to protect new growth as it appears.



#### ORGANIC CLIMATE CROP CONDITIONER

Organic Protein Pro-Polymer Coating
As an Aid to Prevent Frost, Freeze Damage.
FOR USE ON ALL AGRICULTURAL CROPS:
ROW CROPS • FIELD CROPS • TREES & VINES

## **Biodegradable • Non-Polluting • Non-Toxic**

**CONTENTS: Organic Ingredients** 

Active Ingredients-Organic Co-Polymer 30.00% Conjugated Polypeptides 25.00% Acryletic (CPE) Organic Enzymes & Protein 30.00% Amino Acids Organic Enzymes 15.00% Inert Ingredients Organic Enzymes

#### NON-PLANT FOOD INGREDIENTS

#### WARRANTY

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#### **CAUTION:**

#### KEEP OUT OF THE REACH OF CHILDREN

AVOID CONTACT WITH EYES, MAY CAUSE MINOR IRRITATION IN CASE OF EYE CONTACT, FLUSH THROUGHLY WITH WATER FOR 15 MINUTES IF IRRITATION PERSISTS SEEK MEDICAL ATTENTION

#### STORAGE AND DISPOSAL

STORE AT ROOM TEMPERATURE –DO NOT STORE IN DIRECT SUN LIGHT RINSE CONTAINER, RINSE WATER MAY BE DISPOSED IN WASTE SYSTEM CONTAINER MAY BE RECYCLED OR DISPOSED OF IN LAND FILL

**Registered U.S. Patent Office** 

READ ALL LABEL INSTRUCTIONS REFORE USING THIS PRODUCT

NET CONTENTS: 32oz / 0.95 L NET WT. 2.25bs / 0.96 kg

#### **APPLICATION RATES (CONT.)**

#### **Deciduous Nut Trees**

Almonds, pecan, pistachios, and walnuts Apply 4-5 quarts of Frost Shield per acre depending on size of trees. Mix with enough surfactant water to achieve a completely wet and uniform coverage on all sides of fruit and foliage. Apply at bud break, bloom and fruiting stages. Apply every 2 weeks, repeat application to protect new growth as it appears.

#### **Vegetables**

Artichokes, asparagus, broccoli, all bean varieties, brussel sprouts, cabbage, carrots, celery, cauliflower, corn, eggplant, all herb varieties, all onion varieties, peas, peppers, peanuts, all potato varieties, radish and all other root varieties,

spinach, all squash varieties, sugar beets, sugar cane and tomatoes. Apply 3 - 4 quarts of Frost Shield per acre, per application. Mix with enough surfactant water to achieve a completely wet and uniform coverage on all sides of fruit and foliage. Apply at emergence and up through harvest. Apply every 2 weeks. Repeat applications new growth as it appears.

#### Melons

Cantaloupe, casaba, crenshaw, honey dew, watermelon, and other melon varieties. Apply 3 - 4 quarts of Frost Shield per acre, per application, mix with enough surfactant water to achieve a completely wet and uniform coverage on all sides of fruit and foliage. Apply at emergence and up through harvest. Apply every 2 weeks. Repeat application to protect new growth as it appears.

#### **Nursery Stock And Green Houses**

Apply 3 - 4 quarts of Frost Shield per acre, per application. Mix with enough surfactant water to achieve a completely wet and uniform coverage on all sides of fruit and foliage. Apply every 2 weeks. Repeat application as new growth appears.



#### **MAZ ZEE S.A. International**

P.O. Box 365409 - North Las Vegas, Nevada 89036 Phone (800)775-6123 Fax (702)643-5872

# MAZ-ZEE INTERNATIONAL

#### SAFETY DATA SHEET

#### FROST SHIELD

Date: March 2017

## **Section 1 : IDENTIFICATION**

Product Name: FROST SHIELD

SYNONYMS: NONE

Product Use: Climate Conditioner, Full Coverage Spray Manufacturer/Supplier: MAZZEE INTERNATIONAL Address: PO Box 36549 North Las Vegas, NV 99036

(800) 775-6123

Transportation Emergency Number: CHEMTREC (800) 424-9300

#### Section 2: HAZARD(S) IDENTIFICATION

**Hazard Classification :** None Hazardous

**Signal Word:** None Required

**Hazard Statement:** Non-toxic, Biodegradable May cause minor eye and skin irritation over a long period

of exposure.

Description of hazard not otherwise classified: Not Known

Mixture containing an ingredient with unknown toxicity: Not Known

#### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Name:** NA

Chemical Abstracts Service (CAS) number and unique identifiers: NA

Polypeptides Enzymes 30%

Acryletic (CCP) Organic protein 25%

Amino Acids Organic Enzymes 30%

**Inert Proprietary Information (organic) 15%** 

**Total:** 100%

Impurities & Stabilizing Additives: None

Chemical Name and Concentration of all ingredients (classified as health hazard): None

#### **Section 4: FIRST AID MEASURES**

**If inhaled:** Prolonged contact may cause slight irritation. Supply fresh air immediately. Contact a physician if inhalation has caused any discomfort.

**In case of eye contact:** This material may cause minor eye irritation. Rinse with plenty of clean water for five to ten minutes, If symptoms persist, call a physician.

In case of skin contact: Rinse skin thoroughly with clean water. May cause minor skin irritation to sensitive skin or open soars after prolonged contact. If symptoms persist, call a physician.

**If swallowed:** Excessive ingestion may cause nausea or diarrhea. Rinse mouth with clean water. Drink eight to sixteen ounces of whole milk for nausea or induce vomiting. If nausea or diarrhea symptoms persist, call a physician.

#### **Section 5 : FIRE FIGHTING MEASURES**

**Suitable extinguishing media:** This Product is non-flamable, non-volatile and non combustible. Fire Fighters should use caution until the source of the fire is known.

Special hazards arising from the substance or mixture: None

Advice for firefighters: When source of fire is undetermined, proceed with caution and wear proper

protective clothing when combating flames.

**Further information:** This Product is not a fire hazard.

#### **Section 6 : ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures:** If large spillage occurs on public roadways, this product can cause road surface to be slippery, may cause drivers to slide or lose control of vehicles if traveling at high rates of speed or abrupt braking. Traffic control is advised.

**Environmental Precautions: None** 

Methods and materials for containment and cleaning up: May wash with water into curb gutter or storm drains. If local ordinances forbid this type of cleanup, use any type of absorbent, sweep clean and dispose of in any sanitary waste landfills.

#### **Section 7: HANDLING & STORAGE**

**Precautions for safe handling:** This Product is non-hazardous.

Conditions for safe storage, including any incompatibilities: Do not store in direct sunlight. Do not stack palletized product. Store in a cool and dry environment. This Product may be incompatible with non-water soluble products. Always due a compatibility jar test when mixing with other products to insure proper emulsification of products before tank mixing.

Specific end use(s): NA

#### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters:** NA

Components with workplace control parameters: NA

**Exposure controls:** NA

Permissible Exposure Limit (PELs): NA

Threshold Limit Values (TLVs): NA

**Appropriate engineering controls:** NA

**Personal protective equipment:** None required. See Section 4 if excessive contact with eyes and skin.

Eye/face protection: Standard face shield if needed.

**Skin protection:** None Required.

**Body protection:** None Required.

**Respiratory protection:** None Required.

Control of environmental exposure: NA

#### Section 9: PHYSICAL & CHEMICAL PROPERTIES

**Appearance:** Light blue Liquid

Odor: Mild sweet aroma.

pH: 7.0

Melting point/freezing point: NA

**Initial Boiling Point:** 14.7 PSIG APPR. .232

**Flash Point:** Equivalent to water.

Flammability (solid, gas): None

Vapor Pressure & Density: Equivalent to water.

Water Solubility: Water Soluble.

Specific gravity: 25c / 1.018

# **Section 10 : STABILITY AND REACTIVITY** Reactivity: NA Chemical stability: Stable Possibility of hazardous reactions: None known Condition to avoid: NA Incompatible materials: Non water soluble materials. Hazardous decomposition products: NA Section 11 : TOXICOLOGICAL INFORMATION **Acute Toxicity:**NA **Chronic Toxicity:**NA **Reproductive Toxicity:** NA **Additional Information:**NA Section 12 : ECOLOGICAL INFORMATION **Toxicity:** Non-Toxic Persistence and degradability:NA **Bio-accumulative potential:**NA **Mobility in soil:**NA Other adverse effects: None Known. **Section 13 : DISPOSAL CONSIDERATIONS** Waste Treatment Methods: Observe all State, Federal and local Regulations.

#### **Section 14: TRANSPORT INFORMATION**

**DOT** (US): No DOT Regulations

**UN Number:**NA

Class:NA

Packing Group:NA

**Proper Shipping Name:** Frost Shield

#### **Section 15 : REGULATORY INFORMATION**

No safety, health and environmental regulations pertaining to this product. All ingredients in this product are non-hazardous.

#### **Section 16: OTHER INFORMATION**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named manufacturer nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user.

This product conforms on its description and is reasonably fit for the purpose referred to in the directions for use when used in accordance with the directions under normal conditions.

Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty. The exclusive remedy against seller shall be in a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort. Any controversy or claim arising out or relating to this contract, or breach thereof, shall be settle by arbitration in accordance with the commercial arbitration rules of the American Arbitration Association, and judgment upon the rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.