GROUP 9 FUNGICIDE

# **IMPALA FUNGICIDE**

For control or suppression of listed leaf and fruit diseases in pomefruits, grapes, strawberries, potatoes, field tomatoes, bulb vegetables, ginseng, highbush and lowbush blueberries, raspberries, and gooseberries.

COMMERCIAL

**SUSPENSION** 

ACTIVE INGREDIENT: Pyrimethanil......400 g/L

Contains 5-chloro-2-methyl-4-isothiazolin-3- one at 0.00113% and 2-methyl-4-isothiazolin-3-one at 0.00037% as preservatives.

Warning, contains the allergen sulfites.

REGISTRATION NO. 34661 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND BOOKLET BEFORE USING KEEP OUT OF REACH OF CHILDREN





NET CONTENTS: 250 mL-20 L

Sharda Cropchem Limited 2<sup>nd</sup> Floor, Prime Business Park, Dashrathlal Joshi Road, Vile Parle (West), Mumbai – 400056 India Canadian Agent: Sharda Cropchem Limited 63 Kingsview Blvd Etobicoke, Ontario, M9R 1V1 1-416-840-5639

In case of spills, poisoning or fire, telephone emergency response number **1-613-996-6666** (24 hours a day).

For product information, call: 1-844-810-5720

## **PRECAUTIONS:**

- KEEP OUT OF REACH OF CHILDREN
- Harmful if inhaled. Avoid inhaling/breathing sprays.
- When tank-mixing is permitted, read and observe all label directions, including rates, personal protective equipment, restrictions and precautions for each product used in the tank-mix. Always use in accordance with the most restrictive label restrictions and precautions.
- Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreation areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.
- Wash thoroughly with soap and water after handling and before eating, drinking, or smoking.
- If product comes in contact with clothing, remove all contaminated clothing, wash skin with soap and water and dress in clean clothing. Launder applicator clothing separate from other laundry.
- If this pest control product is to be used on a commodity that may be exported to the United States and you require information on acceptable residue levels in the United States, visit CropLife Canada's web site at <u>www.croplife.ca</u>.

## **ENVIRONMENTAL PRECAUTIONS:**

- Toxic to aquatic organisms. Observe spray buffer zones specified under DIRECTIONS FOR USE.
- To reduce runoff from treated area into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.
- Avoid application when heavy rain is forecast.
- Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.
- DO NOT apply this product through any type of irrigation system.

## **PROTECTIVE CLOTHING AND EQUIPMENT:**

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and boots during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab and/or cockpit. In addition, wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair.

## FIRST AID:

## Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**IF SWALLOWED:** Call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin

immediately with plenty of water for 15–20 minutes. Call a poison control centre 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 by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**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 a poison control centre or doctor for treatment advice.

## TOXICOLOGICAL INFORMATION:

- Treat symptomatically. Medical Personnel should contact **1-613-996-6666** (24 hours a day).

## **STORAGE:**

- Do not contaminate water, food, or feed by storage or disposal.
- CANNOT BE STORED BELOW FREEZING.
- If stored for 1 year or longer, shake well before using.
- Store the tightly closed container away from feeds, seeds, fertilizer, plants and foodstuffs.
- Do not use or store in or around the home.
- Keep the product in the original container during storage.
- In case of fire, leaking or damaged containers, call 1-613-996-6666 (24 hours a day).

# **DISPOSAL:**

## **Recyclable Container Disposal:**

DO NOT reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

**Returnable Container:** DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

**Refillable Container:** For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

## Non-Returnable Container:

- 1. Triple or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
- 3. Make the empty container unsuitable for further use.
- 4. Dispose of the container in accordance with provincial requirements.

## **Disposal of Unused Spray Solution:**

If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the area just sprayed, NOT ON THE CROP, away from water supplies, ditches, and irrigation canals. Spray buffer zones indicated in the DIRECTIONS FOR USE must also be respected.

## **Disposal of Unused, Unwanted Product:**

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

## **NOTICE TO USER:**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

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IMPALA FUNGICIDE

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## **GENERAL INFORMATION**

## Section 1: The Product

## THE PRODUCT:

IMPALA FUNGICIDE is a systemic, foliar fungicide that is effective for control or suppression of certain plant diseases on: potatoes, grapes, pomefruits, strawberries, bulb vegetables, field tomatoes, ginseng, highbush and lowbush blueberries, raspberries and gooseberries.

IMPALA FUNGICIDE is best suited for use in a preventative treatment program.

## SAFETY AND HANDLING

## Section 2: Precautions, Protective Clothing and Equipment, and Restricted-Entry Intervals.

## **PRECAUTIONS:**

- KEEP OUT OF REACH OF CHILDREN
- Harmful if inhaled. Avoid inhaling/breathing sprays.
- When tank-mixing is permitted, read and observe all label directions, including rates, personal protective equipment, restrictions and precautions for each product used in the tank-mix. Always use in accordance with the most restrictive label restrictions and precautions.
- Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreation areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.
- Wash thoroughly with soap and water after handling and before eating, drinking, or smoking.
- If product comes in contact with clothing, remove all contaminated clothing, wash skin with soap and water and dress in clean clothing. Launder applicator clothing separate from other laundry.
- If this pest control product is to be used on a commodity that may be exported to the United States and you require information on acceptable residue levels in the United States, visit CropLife Canada's web site at <u>www.croplife.ca</u>.

## **PROTECTIVE CLOTHING AND EQUIPMENT:**

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and boots during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab and/or cockpit. In addition, wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair.

## **RESTRICTED-ENTRY INTERVAL**:

- DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours, except for activities involving for the following crops:
- For hand thinning in pome fruits and bulb vegetables, and for cane turning, girdling, training, tying, pruning, thinning and leaf pulling in grapes, DO NOT enter or allow worker entry into treated areas during the REI of 24 hours.

## Section 3: First Aid and Toxicological Information

## FIRST AID:

## Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**IF SWALLOWED:** Call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre 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 by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**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 a poison control centre or doctor for treatment advice.

## **TOXICOLOGICAL INFORMATION:**

- Treat symptomatically. Medical Personnel should contact **1-613-996-6666** (24 hours a day).

#### **Section 4: Environmental Precautions**

#### **ENVIRONMENTAL PRECAUTIONS:**

- TOXIC to aquatic organisms. Observe spray buffer zones specified under DIRECTIONS FOR USE.
- To reduce runoff from treated area into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.
- Avoid application when heavy rain is forecast.
- Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.
- DO NOT apply this product through any type of irrigation system.

## Section 5: Storage

## **STORAGE:**

- Do not contaminate water, food, or feed by storage or disposal.
- CANNOT BE STORED BELOW FREEZING.
- If stored for 1 year or longer, shake well before using.
- Store the tightly closed container away from feeds, seeds, fertilizer, plants and foodstuffs.
- Do not use or store in or around the home.
- Keep the product in the original container during storage.
- In case of fire, leaking or damaged containers, call toll free 1-613-996-6666 (24 hours a day).

## Section 6: Disposal

## **Recyclable Container Disposal:**

DO NOT reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

**Returnable Container:** DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

**Refillable Container:** For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

#### Non-Returnable Container:

- 1. Triple or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
- 3. Make the empty container unsuitable for further use.
- 4. Dispose of the container in accordance with provincial requirements.

## **Disposal of Unused Spray Solution:**

If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the area just sprayed, NOT ON THE CROP, away from water supplies, ditches, and irrigation canals. Spray buffer zones indicated in the DIRECTIONS FOR USE must also be respected.

## **Disposal of Unused, Unwanted Product:**

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

## **DIRECTIONS FOR USE**

## Section 7: Application Information and Precautions

## **APPLICATION INFORMATION:**

Thorough coverage of all plant parts to be protected is essential for good disease control. Use sufficient water volume and spray pressure to provide thorough and uniform coverage for optimum disease control.

Fruit Crops – Apply IMPALA FUNGICIDE in a minimum spray volume of 1000 L/ha. Vegetable Crops – Apply IMPALA FUNGICIDE in a minimum spray volume of 300 L/ha for ground application and a minimum of 35 L/ha for aerial application.

## **APPLICATION PRECAUTIONS:**

DO NOT apply more than 6.0 L/ha of IMPALA FUNGICIDE in a single growing season. As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

<u>Field sprayer application:</u> **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Boom height must be 60 cm or less above the crop or ground.

<u>Airblast application</u>: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. **DO NOT** apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

<u>Aerial Application:</u> **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply when wind speed is greater than 16 km/h at flying height at the site of application. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65 % of the wing- or rotorspan.

Apply IMPALA FUNGICIDE only by rotary or fixed-wing aircraft which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label. Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

## Use Precautions for Aerial Applications:

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

Operator Precautions for Aerial Applications: Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot has communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label. All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Product Specific Precautions for Aerial Applications:

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-844-810-5720 or obtain technical advice from the distributor or your provincial agricultural representative.

## **Spray Buffer Zones:**

Use of the following spray methods or equipment **DO NOT** require a spray buffer zone: hand-held or backpack sprayer and spot treatment. The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

| Method of application | Crop | Spray Buffer Zones<br>the<br>Protection of Fresl<br>Dept |                  |
|-----------------------|------|--|------------------|
|                       |      | Less than 1 m  | Greater than 1 m |

| Field sprayer | Potato, strawberry, bulb vegetables,<br>field tomatoes, ginseng, lowbush<br>blueberries | 1 | 1 |
|---------------|---|---|---|
|---------------|---|---|---|

|          | Damafinita  | Early growth stage       | 15 | 1 |
|----------|---|--------------------------|----|---|
|          | Pomefruits  | Late growth stage        | 5  | 1 |
| Airblast | Grape,<br>Gooseberries,<br>Raspberries and<br>Highbush<br>Blueberries | Early growth stage       | 20 | 1 |
|          |   | Late growth stage        | 10 | 1 |
| Aerial   | Potato  | Fixed and rotary<br>wing | 10 | 1 |

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

## **ROTATIONAL CROP RESTRICTIONS:**

Crops on this label may be rotated anytime following the last application of IMPALA FUNGICIDE. Do not rotate to other crops for 30 days following the last application of IMPALA FUNGICIDE.

| CROP          | DISEASE     | RATE                                | APPLICATION DIRECTIONS                       |
|---------------|-------------|-------------------------------------|--|
|               | CONTROLLE   |                                     |  |
|               | D OR        |                                     |  |
|               | SUPPRESSED  |                                     |  |
| Pome fruits   | Pear scab   | IMPALA FUNGICIDE applied            | Apply early in the season at 7-12 day        |
| Apple         | (Venturia   | <u>alone.</u> Apply IMPALA          | intervals, from green tip to petal drop. For |
| Crabapple     | pirina)     | FUNGICIDE at 0.75 to 1.0 L/ha.      | scab control, do not apply post-bloom.       |
| Mayhaw        | Apple scab  | Use the higher rate under high      |  |
| Pear          | (Venturia   | disease pressures. Ensure this rate | PHI of 14 days for apple, crabapple and      |
| Oriental pear | inaequalis) | is maintained in concentrate or     | mayhaw.                                      |
| Quince        | - ·         | dilute spray applications. Apply a  | PHI of 72 days for pear, oriental pear and   |
|               |             | maximum of 4 applications for       | quince.                                      |
|               |             | scab alone.                         | Apply by ground only.                        |
| Apple         |             | IMPALA FUNGICIDE applied            | Apply early in the season at 7-12 day        |
|               | Apple scab  | in tank mixture with DITHANE        | intervals, form green tip to petal drop. For |
|               | (Venturia   | DG Rainshield NT Fungicide:         | scab control, do not apply post-bloom.       |
|               | inaequalis) |                                     | PHI of 45 days.                              |
|               |             | Apply IMPALA FUNGICIDE              | Apply by ground only.                        |
|               |             | at 750 mL/ha plus DITHANE DG        |  |
|               |             | Rainshield NT Fungicide at          |  |
|               |             | 3 kg/ha. Read and follow all        |  |
|               |             | precautions listed on the           |  |
|               |             | DITHANE DG Rainshield NT            |  |
|               |             | Fungicide label.                    |  |
|               |             | A maximum of 4 applications per     |  |
|               |             | year may be made.                   |  |
| Apple         | Storage     | IMPALA FUNGICIDE applied            | Apply 2 weeks before harvest.                |
|               | diseases:   | alone. Apply a single application   | PHI of 14 days.                              |
|               |             | of IMPALA FUNGICIDE at              | Apply by ground only.                        |

## Section 8: Crop, Disease, Rate, Timing

| CROP                               | DISEASE<br>CONTROLLE  | RATE  | APPLICATION DIRECTIONS   |
|------------------------------------|---|---|--|
|                                    | D OR<br>SUPPRESSED  |   |  |
|                                    | Control of<br>Grey<br>Mould<br>( <i>Botrytis</i><br><i>cinerea</i> )      | 1.5 to 2.0 L/ha. Use the higher<br>rate if there is a history of high<br>disease pressures in the field or<br>storage facility.   |  |
|                                    | Suppression of<br>Blue Mould<br>( <i>Penicillium</i><br><i>expansum</i> ) |   |  |
| Grape                              | Botrytis<br>Bunch Rot<br>(Botrytis<br>cinerea)                            | IMPALA FUNGICIDE applied<br>alone.<br>Apply IMPALA FUNGICIDE<br>at 2.0 L/ha.<br>Ensure resistance management<br>recommendations for <i>Botrytis</i> are<br>followed in Section 9. | Begin applications at early bloom if needed<br>then follow with applications from berry<br>touch to bunch closure. An application can<br>also be made from fruit ripening through to<br>harvest during frequent wet conditions<br>(conducive to infection) or when symptoms<br>of infection are evident. Thorough<br>coverage of bunches is essential.<br>Applications must be made a minimum of 7<br>days apart.<br>Apply a maximum of 3 applications per<br>growing season.<br>PHI of 7 days.<br>Apply by ground only. |
| Gooseberry                         | Botrytis Grey<br>Mould<br>( <i>Botrytis</i><br><i>cinerea</i> )           | IMPALA FUNGICIDE applied<br>alone.<br>Apply IMPALA FUNGICIDE<br>at 2.0 L/ha.<br>Ensure resistance management<br>recommendations for <i>Botrytis</i> are<br>followed in Section 9. | Begin fungicide applications<br>preventatively.<br>Make first application at early flowering<br>and repeat applications as required at 7-10<br>day intervals.<br>Apply maximum of 3 applications per<br>growing season. Ensure resistance<br>management recommendations for <i>Botrytis</i><br>are followed in Section 9.<br>PHI: 7 days<br>Apply by ground only.  |
| Highbush<br>Blueberry<br>Raspberry | Botrytis Grey<br>Mould<br>( <i>Botrytis</i><br><i>cinerea</i> )           | IMPALA FUNGICIDE applied<br>alone.<br>Apply IMPALA FUNGICIDE<br>at 2.0 L/ha.<br>Ensure resistance management<br>recommendations for <i>Botrytis</i> are<br>followed in Section 9  | Begin fungicide applications<br>preventatively.<br>Make first application at early flowering<br>and repeat applications as required at 7-10<br>day intervals.<br>Apply maximum of 2 applications per<br>growing season. Ensure resistance<br>management recommendations for <i>Botrytis</i><br>are followed in Section 9.<br>PHI: 0 days<br>Apply by ground only.  |

| Strawberry | Botrytis Grey | IMPALA FUNGICIDE applied         | Make first application at the white bud     |
|------------|---------------|----------------------------------|---|
| Lowbush    | Mould         | alone.                           | stage (prebloom) and repeat applications as |
| Blueberry  | (Botrytis     | Apply IMPALA FUNGICIDE           | required at 7-10 day intervals.             |
|            | cinerea)      | at 2.0 L/ha.                     | Apply a maximum of 3 applications per       |
|            |               | Ensure resistance management     | growing season.                             |
|            |               | recommendations for Botrytis are | PHI of 1 day.                               |
|            |               | followed in Section 9.           | Apply by ground only.                       |

| CROP                                 | DISEASE            | RATE                              | APPLICATION DIRECTIONS   |
|--------------------------------------|--------------------|-----------------------------------|--|
| UNOF                                 | CONTROLLE          | KAIL                              | AFFLICATION DIRECTIONS   |
|                                      | DOR                |                                   |  |
|                                      | SUPPRESSED         |                                   |  |
| Potato                               | Early Blight       | IMPALA FUNGICIDE applied          | Apply when plants are 15-20 cm high or                             |
| -                                    | (Alternaria        | in tank mixture with BRAVO        | when environmental conditions are                                  |
|                                      | solani)            | <u>ZN.</u>                        | conducive to disease development.                                  |
|                                      | -                  |                                   | Repeat applications at 7-14 day intervals or                       |
|                                      |                    | Apply IMPALA FUNGICIDE            | as necessary to maintain disease control. If                       |
|                                      |                    | at 750 mL/ha plus BRAVO ZN        | severe disease conditions exist, use the 7                         |
|                                      |                    | according to BRAVO ZN label       | day interval. Minimum spray interval is 7                          |
|                                      |                    | directions.                       | days. Ensure that the area to be treated is                        |
|                                      |                    |                                   | covered uniformly.   |
|                                      |                    |                                   | Apply a maximum of 3 applications per                              |
|                                      |                    |                                   | growing season.  |
|                                      |                    |                                   | PHI of 7 days.   |
|                                      |                    |                                   | Apply by ground or air.  |
| Field Tomato                         | Early blight       |                                   | Apply only in tank mixture with Bravo ZN.                          |
|                                      | (Alternaria        |                                   | Apply when plants are 15-20 cm high or                             |
|                                      | solani)            |                                   | when environmental conditions are                                  |
|                                      |                    |                                   | conducive to disease development. Repeat                           |
|                                      | Botrytis           |                                   | applications at 7-14 day intervals or as                           |
|                                      | Grey Mould         |                                   | necessary to maintain disease control. If                          |
|                                      | (Botrytis          |                                   | severe disease conditions exist, use the 7                         |
|                                      | cinerea)           |                                   | day interval. Minimum spray interval is 7                          |
|                                      |                    |                                   | days. Ensure that the area to be treated is                        |
|                                      |                    |                                   | covered uniformly.   |
|                                      |                    |                                   | Do not apply more than 3.75 L of                                   |
|                                      |                    |                                   | IMPALA FUNGICIDE per hectare per growing season. Refer to BRAVO ZN |
|                                      |                    |                                   | label for maximum number of applications                           |
|                                      |                    |                                   | per year in field tomatoes.  |
|                                      |                    |                                   | PHI of 1 day.  |
|                                      |                    |                                   | Apply by ground only.  |
| Crop Group                           | Botrytis Leaf      | IMPALA FUNGICIDE applied          | Begin applications prior to onset of disease                       |
| 3-07 (Bulb                           | Blight,            | alone.                            | which typically occur in humid weather or                          |
| Vegetables)*                         | (B. squamosa,      | Apply IMPALA FUNGICIDE            | when rains and heavy dews occur,                                   |
| 8                                    | B. cinerea)        | at 2.0 L/ha.                      | approximately early to after mid-June.                             |
|                                      | ,                  |                                   | Continue applications on a 7 to 14 day                             |
|                                      | Purple blotch      | For botrytis leaf blight on onion | spray interval.  |
|                                      | (Alternaria        | only:                             | Do not apply more than 6.0 L of IMPALA                             |
|                                      | porri)             | IMPALA FUNGICIDE in Tank          | FUNGICIDE per hectare per growing                                  |
|                                      |                    | Mix with Bravo ZN.                | season.  |
|                                      | Neck Rot           | Apply IMPALA FUNGICIDE            | PHI of 7 days.   |
|                                      | (B. allii)         | at 1.0 L/ha (400 g a.i./ha) tank  | Apply by ground only.  |
|                                      |                    | mix with BRAVO ZN according       |  |
|                                      |                    | to BRAVO ZN label directions.     |  |
| *CROP SUBC                           | ROUP 3-07A: H      | Bulb Onion Subgroup:              |  |
|                                      |                    |                                   |  |
|                                      | tato, bulb; Chines |                                   |  |
| · ·                                  | reat-headed, bulb; | serpent, bulb)                    |  |
| Shallot (bulb)                       |                    |                                   |  |
|                                      |                    |                                   |  |
| Daylily (bulb)<br>Fritillaria (bulb) |                    |                                   |  |

| CD OD                                 | DIGELGE              |                                      |                        |  |
|---------------------------------------|----------------------|--------------------------------------|------------------------|--|
| CROP                                  | DISEASE              | RATE                                 | APPLICATION DIRECTIONS |  |
|                                       | CONTROLLE            |                                      |                        |  |
|                                       | D OR                 |                                      |                        |  |
|                                       | SUPPRESSED           |                                      |                        |  |
| Lily (bulb)                           | ·                    |                                      |                        |  |
|                                       |                      |                                      |                        |  |
| and cultivars,                        | varieties, and/or hy | brids of these.                      |                        |  |
| ,                                     | , j                  |                                      |                        |  |
| CROP SUBGI                            | ROUP 3-07B: Gree     | n Onion Subgroup:                    |                        |  |
|                                       |                      | 5 1                                  |                        |  |
| Onion (green:                         | Welsh tons Beltsy    | ville bunching; fresh; macrostem; tr | ree tons)              |  |
|                                       | eaves; Chinese, fres |                                      |                        |  |
| Shallot (fresh                        |                      | ii ieaves)                           |                        |  |
| · · · · · · · · · · · · · · · · · · · | ,                    |                                      |                        |  |
| Fritillaria (fres                     | sn leaves)           |                                      |                        |  |
| Leek                                  |                      |                                      |                        |  |
| Lady's leek                           |                      |                                      |                        |  |
| Wild leek                             |                      |                                      |                        |  |
| Elegans hosta                         |                      |                                      |                        |  |
| Kurrat                                |                      |                                      |                        |  |
|                                       |                      |                                      |                        |  |
| and cultivars,                        | varieties, and/or hy | brids of these.                      |                        |  |

## MINOR USES

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS (BELOW): The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Sharda Cropchem Limited under the User Requested Minor Use Label Expansion program. For these uses, Sharda Cropchem Limited has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

# **FIELD CROPS:**

| FIELD CROFS: |             |          |  |
|--------------|-------------|----------|--|
| CROP         | DISEASE     | RATE     | APPLICATION DIRECTIONS   |
|              | CONTROLLE   |          |  |
|              | D OR        |          |  |
|              | SUPPRESSED  |          |  |
| Ginseng      | Alternaria  | 2.0 L/ha | For optimum results, begin applications as soon as crop          |
|              | blight      |          | and/or environmental conditions become favorable for             |
|              | (Alternaria |          | disease development. Applications should be made on a            |
|              | panax)      |          | minimum 7 day interval depending upon disease                    |
|              | -           |          | conditions.  |
|              | Botrytis    |          | Apply maximum of 3 applications. For Botrytis blight             |
|              | blight      |          | ( <i>Botrytis cinerea</i> ) a maximum of 2 to 3 applications can |
|              | (Botrytis   |          | be made depending on resistance management                       |
|              | cinerea)    |          | recommendations detailed in Section 9. Ensure                    |
|              |             |          | resistance management recommendations are followed.              |
|              |             |          | Do not apply within 30 days of harvest.                          |
|              |             |          | Apply by ground only.  |

## Section 9: Resistance Management

## **RESISTANCE MANAGEMENT RECOMMENDATIONS:**

For resistance management, IMPALA FUNGICIDE contains a Group 9 fungicide. Any fungal population may contain individuals naturally resistant to IMPALA FUNGICIDE and other Group 9 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance:

- Where possible, rotate the use of IMPALA FUNGICIDE or other Group 9 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that is effective on the target pathogen when such use is permitted.
- For *Botrytis* control, follow the Fungicide Resistance Action Committee (FRAC) guidelines:
  - Always alternate applications of IMPALA FUNGICIDE or other Group 9 fungicides with fungicides having a different mode of action (different Group).
  - In situations where 3 to 6 *Botrytis* treatments are made per crop and season, a maximum of 2 applications of IMPALA FUNGICIDE or any other Group 9 fungicide are recommended. In situations where 7 or more *Botrytis* treatments are made per crop and season, a maximum of 3 applications of IMPALA FUNGICIDE or any other Group 9 fungicide are recommended.
- Avoid consecutive applications of IMPALA FUNGICIDE or other Group 9 fungicides in a season. Alternate applications with fungicides having a different mode of action.
- Fungicide use should be based on an integrated pest management program that includes scouting, historical information related to pesticide use and crop rotation and considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications
- Monitor treated fungal populations for resistance development. Notify Sharda Cropchem Limited if reduced sensitivity of the pathogen to IMPALA FUNGICIDE is suspected. If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different site of action, if available.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information and to report suspected resistance, contact Sharda Cropchem Limited at <u>1-844-810-5720</u>.

#### **Section 10: Mixing Instructions**

#### **MIXING INSTRUCTIONS:**

IMPALA FUNGICIDE must be applied with properly calibrated, clean equipment. Prior to adding IMPALA FUNGICIDE to the spray tank, ensure that the spray tank is thoroughly clean.

- Add one-half of the required amount of water to the spray or mixing tank and start agitation.
- Add the required quantity of IMPALA FUNGICIDE to the water and complete filling with water to the required total volume.
- Maintain agitation throughout mixing and spraying.
- When tank-mixing with BRAVO ZN follow use directions according to the BRAVO ZN Label.

#### Section 11: Pre-harvest Intervals (PHI)

| - | Pre-harvest Intervals:        |         |
|---|-------------------------------|---------|
|   | Apple, crabapple, mayhaw      | 14 days |
|   | Pear, oriental pear, quince   | 72 days |
|   | Bulb vegetables               | 7 days  |
|   | Ginseng                       | 30 days |
|   | Grape, gooseberry             | 7 days  |
|   | Potato                        | 7 days  |
|   | Strawberry, lowbush blueberry | 1 day   |
|   | Highbush blueberry, raspberry | 0 days  |
|   | Tomato (field)                | 1 day   |

#### Section 12: Notices

## **NOTICE TO USER:**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

All other products mentioned are trademarks of their respective companies.