



SIPCAM AGRO USA, INC.

# Torrent™ 4F



## *Insecticide for use on Cotton*

### ACTIVE INGREDIENT:

Imidacloprid: 1-[(6-Chloro-3-pyridinyl)methyl]-  
N-nitro-2-imidazolidinimine . . . . . 40.7%

OTHER INGREDIENTS: . . . . . 59.3%

TOTAL: . . . . . 100.0%

Contains 4 pounds of imidacloprid per gallon.

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

### FIRST AID

<b>If swallowed:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li></ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>

### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

### NOTE TO PHYSICIAN

No specific antidote is available. Treat the patient symptomatically.

See attached label booklet for additional PRECAUTIONARY STATEMENTS

Manufactured for:  
**SIPCAM AGRO USA, INC.**

300 Colonial Center Parkway, Suite 230  
Roswell, GA 30076 USA

Formulated in the United States of America,  
with U.S. and imported ingredients.

EPA Reg. No. 60063-33  
EPA Est. No. 67545-AZ-001

**Net Contents:**

**60 Fl. Oz. (1.77 Liters)**

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
**CAUTION**

Harmful if swallowed, absorbed through skin, or inhaled. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as, nitrile rubber, butyl rubber, neoprene rubber, barrier laminate, polyethylene, polyvinyl chloride (PVC) or viton.
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROLS STATEMENT**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

**Users Should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove Personal Protective Equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, 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 washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. This product is toxic to wildlife and highly toxic to aquatic invertebrates.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

**Observe the following precautions when mixing and apply in the vicinity of aquatic areas such as lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.**

### **Mixing and Loading**

To avoid potential contamination of ground water, the use of a properly designed and maintained containment pad for mixing and loading of any pesticide into application equipment is recommended. If containment pad is not used, maintain a minimum distance of 25 feet between mixing and loading areas and potential surface to groundwater conduits such as field sumps, uncased well heads, sinkholes or field drains.

### **Spray Drift Management**

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

### **For Aerial Applications**

The spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of the wing span or rotor diameter.

### **Importance of Droplet Size**

An important factor influencing drift is droplet size. Small droplets (<150-200 microns) drift to a greater extent than larger droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure.

Spray should be released at the lowest possible height consistent with good pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

### **Wind Speed Restrictions**

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

### **Restrictions During Temperature Inversions**

Do not make aerial or ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

### **No-Spray Zone Requirements for Foliar Applications**

Do not apply by ground within 25 feet, or by air within 150 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

### **Runoff Management**

Do not cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip.

When used on erodible soils, best management practices for minimizing runoff should be employed. Consult your local Natural Resources Conservation Service for recommendations in your use area.

### **Endangered Species Notice**

Under the Endangered Species Act, it is a Federal Offense to use any pesticide in a manner that results in the death of a member of an endangered species. Consult your local county bulletin, County Extension Agent, or Pesticide State lead Agency for information concerning endangered species in your area.

### **Resistance Management**

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. Torrent 4F contains a Group 4A insecticide called imidacloprid. Insect biotypes with acquired or inherent tolerance to group 4A products may eventually dominate the insect population if Group 4A products are used repeatedly as the predominant method of control for target species. This may eventually result in partial or total loss of control of those species by Torrent 4F and to other Group 4A products.

The active ingredient in Torrent 4F is a member of neonicotinoid chemical group. Avoid using a block of more than three consecutive applications of Torrent 4F and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Sipcam Agro USA strongly encourages the rotation to a block of applications with effective products from a different mode of action before using additional applications of neonicotinoid products. Using a block rotation or windowed approach, along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect pest's ability to develop resistance to this class of chemistry.

Foliar applications of Torrent 4F or other Group 4A products from the neonicotinoid chemical class should not be used on crops previously treated with a long-residual, soil-applied product from the neonicotinoid chemical class.

Other Group 4A, neonicotinoid products used as foliar treatments include: Actara®, Assail®, Calypso®, Centric®, Intruder™, Leverage® and Trimax™. Other 4A Group, neonicotinoid products used as soil treatment include: Admire® and Platinum®.

Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM) visit the Insect Resistance Action Committee (IRAC) on the web at <http://irac-online.org/>.

### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR part 170.

This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as, nitrile rubber, butyl rubber, neoprene rubber, barrier laminate, polyethylene, polyvinyl chloride (PVC) or viton
- Shoes plus socks

### **GENERAL INFORMATION**

Apply Torrent 4F to infested areas in cotton as a directed or broadcast spray as the target pest population is just beginning to develop. Scout fields and retreat if needed, making multiple applications as necessary to promote plant health and yield. Torrent 4F provides optimal performance against early instar and early nymph stages of insects as well as bollworm/budworm eggs. The degree of control or suppression of additional labeled pests is determined by the stage of pest development at application and the intensity of infestation.

### **Use Precautions**

- Do NOT apply Torrent 4F through any type of irrigation system.
- Do NOT apply Torrent 4F in enclosed structures such as greenhouses or plant houses.
- Do NOT apply more than 0.5 lb active ingredient of imidacloprid per acre per season, including seed treatment, soil and foliar uses.

### Rotational Crops

As soon as practical following the last application, treated areas may be replanted with any crop specified on an imidacloprid label or any crop for which a tolerance exists for imidacloprid. *For crops NOT listed on an imidacloprid label or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval should be observed.* Cover crops for soil building or erosion control may be planted at any time.

#### Immediate Plant-Back:

Barley	Legume Vegetables
Canola	(except dry soybean)
Corn (field, sweet and pop)	Potato
Cotton	Rape Seeds
Corn Vegetables	Root Vegetables
Cucurbit Vegetables	Sorghum
Fruiting Vegetables	Strawberry
Globe Artichoke	Sugarbeet
Head and Stem Brassica	Tobacco
Vegetables	Tuberous Vegetables
Leafy Vegetables	Wheat
Leafy Petiole Vegetables	

#### 30-Day Plant-Back

Cereals (including Buckwheat,	Safflower
Millet, Oats, Rice, Rye and Triticale)	Soybean, Dry

#### 12-Month Plant-Back

All other crops

### MIXING INSTRUCTIONS

Add a portion of the required amount of water to the spray tank, commence agitation and referring to the table in the Application Instructions section below add the specified amount of Torrent 4F. Complete filling the tank with the remaining water. Be sure to maintain agitation both while mixing and during application.

**NOTE:** When targeting aphids and / or whiteflies, an organosilicone-based spray adjuvant is recommended.

### Tank-Mixes

Torrent 4F may also be used with other pesticides and/or fertilizer solutions.

When tank-mixing Torrent 4F with other pesticides, prepare the tank mixture as recommended above and use the following instructions:

- 1) Add wettable powders first
- 2) Add Torrent 4F or other flowables second
- 3) Add emulsifiable concentrates last

Be sure to maintain agitation as each component is added and do not add an additional component until the previous component is thoroughly integrated into the mixture. If a fertilizer solution is added, a fertilizer-pesticide compatibility agent may be needed.

<b>Pests Controlled (in addition to pests listed below)</b>	<b>Torrent 4F (fl. oz. / Acre)</b>	<b>Bidrin® 8† (fl. oz. / Acre)</b>
For early season control of: Thrips	1.0	1.6-3.2
For mid- to late-season control of: Plant Bugs Stink Bugs (including Brown Stink Bug) Grasshoppers Saltmarsh Caterpillar Cotton Leaf Perforator	1.0	4.0-8.0
† Refer to the Bidrin® 8 product label for specific use recommendations and be sure to observe all restrictions and precautions that appear on the label.		

### Compatibility Test

Before adding Torrent 4F to the spray tank or mix tank, the compatibility of the desired tank-mix partners should be determined. Add proportionate amounts of each ingredient in the appropriate order to a pint or quart jar, cap, shake for 5 minutes, and let set for 5 minutes. Poor mixing or formation of precipitates that do not readily re-disperse indicates an incompatible mixture that should not be used.

### APPLICATION INSTRUCTIONS

Apply the specified rate of Torrent 4F as a directed or broadcast spray using properly calibrated ground or aerial application equipment. For best results apply to infested areas as the target pest just begins to develop. To achieve optimal control, complete and uniform coverage is necessary.

To promote plant health and yield, scout fields throughout the growing season and make multiple applications of Torrent 4F as needed.

### COTTON

- Do NOT graze treated fields after any application of Torrent 4F
- Pre-Harvest Interval (PHI): 14 days
- Minimum interval between applications: 7 days
- Maximum Torrent 4F allowed per crop season: 7.5 fluid ounces/Acre (0.235 lb AI/A)
- Maximum number of Torrent 4F applications per season: 5

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Cotton Aphid Cotton Fleahopper Bandedwinged Whitefly Plant bugs (excludes <i>Lygus hesperus</i> ) Green Stink Bug Southern Green Stink Bug Bollworm / Budworm (ovicidal effect)	1.0 – 1.5	<p>Apply as a directed or broadcast spray treatment just as the target pest begins to develop.</p> <p>Use the lower rates listed early in the season when pest pressures are low or when tank-mixing with other effective products registered for the target pest.</p> <p>NOTE: Applications made with less than 5 gallons per acre may result in slower activity and/or less overall control from a single application than an application made with higher gallonages.</p>
Lygus Bug ( <i>Lygus hesperus</i> ) Whiteflies (other than Bandedwinged Whitefly)	1.5	<p>Suppression only of these pests.</p>



#### **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### **WARRANTY AND LIMITATION OF DAMAGES**

Conditions of sale: To the extent consistent with applicable law, Sipcam Agro USA, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to Sipcam Agro USA, Inc. SIPCAM AGRO USA, INC. DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. To the extent consistent with applicable law, SIPCAM AGRO USA, INC. SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SIPCAM AGRO USA, INC.'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. BUYER AND USER ACKNOWLEDGE AND ASSUME ALL RISKS AND LIABILITY RESULTING FROM HANDLING, STORAGE AND USE OF THIS PRODUCT. SIPCAM AGRO USA, INC. DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.

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