Imidacloprid Seed Treatment

ACTIVE INGREDIENT:
Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine .................................................. 48.7%

INERT INGREDIENTS: ........................................................................................................................................ 51.3%

Total ...................................................................................................................................................... 100.0%

Contains 5 pounds of active ingredient per gallon (600 grams per liter) @ 20°C

KEEP OUT OF REACH OF CHILDREN
CAUTION
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).
See inside for additional precautionary statements. Read the entire label before using this product. Use only according to label instructions.

EPA Reg. No. 5905-577
AD 091710-A

EPA Est. No 5905-GA-001

NET CONTENTS:

Manufactured for
Helena Chemical Company
225 Schilling Blvd., Suite 300
Collierville, Tennessee 38017
PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if inhaled. Harmful if swallowed. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear, long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves made of waterproof material such as polyethylene, polyvinylchloride (PVC) or viton.

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
- Protective eyewear

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.

USER SAFETY RECOMMENDATIONS
Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

FIRST AID

IF INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

IF SWALLOWED:
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF IN EYES:
- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

Have a product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact ChemTrec at 1-800-424-9300, collect day or night, for emergency
ENVIRONMENTAL HAZARDS
This product is highly toxic to birds and aquatic invertebrates. For terrestrial uses, do not apply directly to water, 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. Cover or incorporate spilled treated seeds.

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

For use in commercial seed treaters only, with the exception of application to canola, cotton (delinted seed), field corn, sorghum, wheat and barley, which may be made either by commercial seed treatment or as an end-use seed treatment on agricultural establishments at, or immediately before, planting. This product is to be used in liquid or slurry treaters.

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.

Mix thoroughly before use or use entire container at one time. All tank mixes should be pre-tested to determine physical compatibility between formulations. Observe all cautions and limitations on labeling of all products used in mixtures.

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.

Exception: If the seed is treated with the product and the treated seed is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. 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, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC), or Viton
- Shoes plus socks
- Protective eyewear
ROTATIONAL CROPS*
Treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient, as soon as practical following the last application. The following plant-back interval should be observed for listed crops:

IMMEDIATE PLANT-BACK:
Artichoke, Barley, Brassica (Cole) leafy vegetables, Canola, Cilantro, Corn, Field, Corn, Sweet, Cotton, Cranberry, Cucurbits, Eggplant, Ground cherry, Leaf petiole vegetables, Leafy vegetables, Legume vegetables (succulent or dried, except soybean), Mustard seed, Oats, Okra, Pepinos, Pepper, Popcorn, Potato, Rapeseed, Rye, Sorghum, Soybean, Strawberry, Sugarbeet, Tomatillo, Tomato, Triticale, Veg.
Root and Tuber, Watercress, Wheat

30-DAY PLANT-BACK:
Cereals (including buckwheat, millet, oats, rice, safflower)

All Other Crops
*Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed.
*For all other crops not listed on an imidacloprid label, or for crops for which no tolerance for the active ingredient has been established, a 12-month plant-back interval should be observed.

NOTIFICATION of the crop rotational restriction must be conveyed to the grower by appropriate seed tag labeling or bag printing on all seed units.

NOTE: The purchaser of this product is responsible for ensuring that all seed treated with this product are adequately dyed with a suitable color to prevent its accidental use as food for man or feed for animals. Refer to 21 CFR, Part 2.25. Any dye or colorant added to treated seed must be cleared for use under 40 CFR, Par 180.1001. Federal regulations have established official tolerances for certain pesticide residues. In order that residues on food and forage crops will not exceed established tolerances, use only at recommended rates.

Treated seed must not be used for or mixed with food or animal feed or processed for oil. Seed commercially treated with this product must be labeled in accordance with all applicable requirements of the Federal Seed Act.

Labels for commercially treated seed should include the following addition to the Environmental Hazards statements:
Exposed treated seed may be hazardous to birds. Dispose of all excess treated seed and seed packaging by burial away from bodies of water. Cover or incorporate spilled treated seeds.

Rape seeds grown and harvested from this product’s treated seed must not be used for human and feed consumption. Rapeseed grown and harvested from this product’s treated seed is only for industrial uses and cannot be used for edible oil or any other human/feed consumption.

**Wheat, Barley, Oats, Rye, Triticale, Sorghum:** Do not graze or feed livestock on treated areas for 45 days after planting.
Cotton (delinted seed only): Regardless of the type of application (seed treatment, soil or foliar) do not apply more than a total of 0.5 pounds of imidacloprid per acre per cropping cycle.

Stored Seed Protection: Applied at labeled rates equal to or above 0.8 fluid ounce per hundredweight, this product will provide protection to seed against injury from the following insects: Indian Meal Moth (Plodia interpunctella), Rice Weevil (Sitophilus oryzae), Red Flour Beetle (Tribolium castaneum), and Lesser Grain Borer (Rhizopertha dominica). It is recommended that seed with existing populations of stored grain pests be fumigated prior to treating and bagging seed.

For Early Season Protection Against Certain Sucking Insects: This product will aid in the protection of seeds and seedlings against injury by certain early season insects.

Canola, rapeseed, mustard seed: To provide early season protection of seedlings against injury by aphids, flea beetles, and wireworms, apply as a commercial seed treatment at 10.24 to 25.6 fluid ounces per hundredweight of seed. In areas where flea beetles and foliar insects are in high numbers, the higher application rate is recommended. Please consult your local agricultural office for pest patterns, history, and forecasts to assist in determining the appropriate rate for your region.

For suppression of Lygus bugs, including lygus spp. In their second generation and cabbage Seedpod Weevil larvae, including Ceutorhynchus assimilis, apply 15.36 to 25.6 fluid ounces per hundredweight of seed.

Canola, rapeseed, mustard seed: For End-Use Application at Agricultural Establishments: Apply using an HCBT or a Batch Treater. Shake this product thoroughly before use. Apply 5.1 to 12.8 fluid ounces of this product per 50 pound bag. This product may be diluted with an approved Helena Chemical Company fungicide mixture for extended disease protection. Treat one-half of seed with one-half of slurry mix. Add the balance of the seed and apply balance of slurry. Allow mixing until seed is thoroughly covered.

Field Corn: For the protection of corn plants from the corn insect pests below, apply as a seed treatment at the specified rates listed.

<table>
<thead>
<tr>
<th>PEST</th>
<th>HELENA IMIDACLOPRID SEED TREATMENT</th>
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<tbody>
<tr>
<td></td>
<td>MG. AI PER KERNEL</td>
</tr>
<tr>
<td>Corn root worm (including Northern, Western, Southern, and Mexican¹)</td>
<td>1.34</td>
</tr>
<tr>
<td>Flea beetle</td>
<td></td>
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<tr>
<td>Chinch bug</td>
<td></td>
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<tr>
<td>Southern green stinkbug</td>
<td></td>
</tr>
<tr>
<td>White grub</td>
<td></td>
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<tr>
<td>Seed corn maggot</td>
<td></td>
</tr>
<tr>
<td>Thrips</td>
<td></td>
</tr>
<tr>
<td>Wireworm</td>
<td></td>
</tr>
<tr>
<td>Corn leaf aphid</td>
<td></td>
</tr>
<tr>
<td>Imported fire ant</td>
<td></td>
</tr>
</tbody>
</table>

¹“Mexican” includes “Northern Mexican” and “Mexican-Brown”.
<table>
<thead>
<tr>
<th>PEST</th>
<th>HELENA IMIDACLOPRID SEED TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MG. AI PER KERNEL</td>
</tr>
<tr>
<td>Flea beetle</td>
<td>0.60</td>
</tr>
<tr>
<td>Chinch bug</td>
<td></td>
</tr>
<tr>
<td>Seed corn maggot</td>
<td></td>
</tr>
<tr>
<td>Thrips</td>
<td></td>
</tr>
<tr>
<td>Wireworm</td>
<td></td>
</tr>
<tr>
<td>Corn leaf aphid</td>
<td></td>
</tr>
<tr>
<td>Imported fire ant</td>
<td></td>
</tr>
<tr>
<td>Grape colaspis</td>
<td></td>
</tr>
<tr>
<td>White grub</td>
<td></td>
</tr>
</tbody>
</table>

1In areas of heavy to severe corn rootworm populations, protection will not be adequate. Use only in areas of light to moderate corn rootworm populations. Consult your State Agricultural Extension Service on levels of corn rootworm populations.

2Reduces early season feeding damage.

3Will reduce feeding damage caused by leaf feeding black cutworms that are ½ inch or less in length.

4Reduces feeding damage during emergence and seedling stages.

**Field Corn: For End-Use Application at Agricultural Establishments:** Apply using an HCBT or an Eight-Bag Batch Treater. Shake this product thoroughly before use. Dilute this product with water and/or an approved Helena Chemical Company fungicide mixture. The final slurry rate should be adjusted to apply a rate of 8 to 10 fluid ounces of diluted slurry per 50 pound bag of seed. Treat one-half of slurry mix. Allow mixing until seed is thoroughly covered. Apply 0.75 ounce of dry TALC per 50 pound bag of seed following the product application and allow it to distribute evenly on the seed.
Wheat, Barley, Oats, Rye, Triticale: To provide early season protection of seedlings against injury by aphids, (including Bird cherry-oat, English grain, Greenbug and Russian wheat aphid), Hessian fly, apply 0.8 to 2.4 fluid ounces per hundredweight of seed prior to planting as a slurry treatment. For low use rate for "wireworm-only" protection; use this product applied at the 0.13 to 0.26 fluid ounce per hundredweight of seed offers suppression of wireworm activity on seed and young seedlings. To provide early season protection from grasshopper damage, this product should be applied to seed at 1.2 to 2.4 fluid ounces per hundredweight. To reduce early season damage caused by grasshopper, this product’s treated seed may be planted as a 50 to 60 foot border around the edges of the field. Consult your local university extension entomologist for details regarding grasshopper control in your area. For maximum effectiveness, seed should be treated uniformly. Use the higher rate to provide increase length of protection and from heavy insect pressure and from wireworms, and to reduce potential spread of Barley yellow dwarf virus due to aphid vectors. Do not graze or feed livestock on treated areas for 45 days after planting.

Wheat, Barley, Oats, Rye, Triticale: For End-Use Application at Agricultural Establishments: Apply using a Total Slurry Treater (TST), Farmer Applied Seed Treater (F.A.S.T.), Farmer Air Pressure System (FAP) or other on-farm seed treating equipment to deliver accurate rates of this product to achieve optimum product performance. Apply 0.8 to 2.4 fluid ounces per hundredweight of seed. This product should be combined with a Helena Chemical Company fungicide product for seed and seedling protection against fungal pathogens as well as insect pests. Dilution with water may be necessary depending on fungicide formulations used. This product may also be applied on-farm as an over-treatment to seed pretreated with a fungicide. In this case, dilution is necessary. Do not graze or feed livestock on treated areas for 45 days after planting.

Sorghum: To provide early season protection of seedlings against injury by Aphids (including Corn leaf, English grain, Greenbug, and Yellow sugar cane aphid), Chinch bugs, Fire ants and Wireworms, apply 6.4 fluid ounces per hundredweight of seed prior to planting as a slurry treatment. Ensure thorough coverage. Do not graze or feed livestock on treated areas for 45 days after planting.

Sorghum: For End-Use Application at Agricultural Establishments: Apply using an HCBT or an Eight-Bag Batch Treater. Shake this product thoroughly before use. Dilute 3.2 fluid ounces of this product with 50 pound bag of seed. The final slurry rate should be adjusted to apply a rate of 8 to 10 fluid ounces of diluted slurry per 50 pound bag of seed. Treat one-half of seed with one-half of slurry mix. Add the balance of the seed and apply balance of slurry. Allow mixing until seed is thoroughly covered. Apply 0.75 ounce of dry TALC per 50 pound bag of seed following the product application and allow it to distribute evenly on the seed. Do not graze or feed livestock on treated areas for 45 days after planting.

Cotton (Delinted Seed Only): To provide protection of seedlings against injury by early season thrips and aphids, and where the specific application rate is desired on an individual seed basis, apply at 0.375 mg. ai per seed (do not apply more than 12.8 fluid ounces per hundredweight of seed) prior to planting as a slurry treatment so as to ensure thorough coverage. Otherwise, apply at 12.8 fluid ounces per hundredweight of seed. Regardless of the type of application (seed treatment, soil or foliar) do not apply more than a total of 0.5 pounds of imidacloprid per acre per cropping cycle.

Cotton (Delinted Seed Only): For End-Use Application at Agricultural Establishments: Apply using an HCBT or an Eight-Bag Batch Treater. Shake this product thoroughly before use. Dilute 6.4 fluid ounces of this product with water or a ready-to-use fungicide mixture, such as RTU-vitavax-Thiram or ALLEGIANCE-FL, for each 50-pounds bag of cottonseed to be treated. The final slurry rate should be adjusted to apply a...
rate of 8 to 10 fluid ounces of diluted slurry per 50 pound bag of seed. Treat one-half of seed with one-half of slurry mix. Add the balance of the seed and apply balance of slurry. Allow mixing until seed is thoroughly covered.

**Sugar Beets:** To provide early season protection of seedling against injury by Whitefly, Aphids, Leafhoppers (including to reduce potential for spread of Curly top and Yellow mosaic virus due to aphid and leafhopper vectors), Root aphids, Thrips and Wireworms, apply as a commercial seed treatment at 2.4 to 5.0 fluid ounces of this product in or on a unit of pelleted sugar beet seed with a weight ratio of 2:1 pelleting mixture to raw seed (seed count 100,000 seed – approximately 1 kilogram by weight) at a rate of 2.4 fluid ounces per unit of seed. If rates exceed 2.4 fluid ounces per unit, seed must be pelleted.

**Sweet Corn:** For the protection of sweet corn plants from the insect pests listed below, apply as a seed treatment at the specified rates listed.

<table>
<thead>
<tr>
<th>PEST</th>
<th>HELENA IMIDACLOPRID SEED TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FLUID OUNCES/CWT. OF SEED</td>
</tr>
<tr>
<td>Flea beetle</td>
<td>6.4</td>
</tr>
<tr>
<td>Early season corn leaf aphid</td>
<td></td>
</tr>
<tr>
<td>Seed corn maggot</td>
<td></td>
</tr>
<tr>
<td>Wireworm</td>
<td></td>
</tr>
<tr>
<td>Imported fire ant</td>
<td>3.2 to 6.4</td>
</tr>
<tr>
<td>Early season corn leaf aphid</td>
<td></td>
</tr>
<tr>
<td>Seed corn maggot</td>
<td></td>
</tr>
<tr>
<td>Wireworm</td>
<td></td>
</tr>
<tr>
<td>Imported fire ant</td>
<td>1.6 to 3.2</td>
</tr>
<tr>
<td>Seed corn maggot (seed protection)</td>
<td></td>
</tr>
<tr>
<td>Wireworm (seed protection)</td>
<td></td>
</tr>
<tr>
<td>Wireworm (seed protection)</td>
<td>0.8 to 1.6</td>
</tr>
</tbody>
</table>

The final slurry rate should be adjusted to apply a rate of 16 to 20 fluid ounces of diluted solution per hundredweight of seed with commercial equipment.

**Popcorn:** To provide early season protection of seedlings against injury by flea beetles, apply as a commercial seed treatment at 6.4 fluid ounces per hundredweight of seed.

**Soybean:** For protection of planted seeds from damage caused by seed corn maggot, to reduce feeding damage caused by soybean aphids and over-wintering bean leaf beetles, and to help suppress the spread of certain viruses, apply 1.6 to 3.2 fluid ounces per hundredweight of seed. Use higher rate to provide increased length of protection and for heavy insect pressure. This product can be used as an overtreatment. Do not graze or feed livestock or soybean forage or hay.

**Adjuki bean, Asparagus Bean, Broad Bean ( Succulent or Dry), Catjang Bean, Chinese Longbean, Field Bean, Guar Bean, Jackbean, Kidney Bean, Lablab Bean, Lima Bean (succulent or Dry), Moth Bean (Succulent or Dry), Mung Bean, Navy Bean, Pinto Bean, Rice Bean, Runner Bean, Snap Bean, Sword Bean, Tepary Bean, Urd Bean, Wax Bean, Yardlong Bean, Blackeyed Pea (Succulent or Dry), Chickpea, Cowpea (Succulent or Dry), Crowder Pea, Dwarf Pea, Edible-Pod Pea, English Pea, Field
**Pea, Garden Pea, Preen Pea, Pigeon Pea (Succulent or Dry), Snow Pea, Southern Pea (Succulent or Dry), Southern Pea (Succulent or Dry), Sugar Snap Pea, Grain Lupin, Sweet Lupin, White Lupin, White Sweet Lupin, Lentil**: To provide early season protection of seedlings against injury by wireworm, bean leaf beetle, imported fore ant and aphid, apply as a commercial seed treatment at 1.6 to 3.2 fluid ounces per hundredweight of seed prior to planting.

*Seed-and-pod vegetable seed treated in California must be destined for planting in states other than California and is not to be planted in California.*

**Carrot**: To provide early season protection of seedlings against injury by seed corn maggot and wireworm, apply as a commercial seed treatment at 6.4 fluid ounces per hundredweight of seed.

### STORAGE AND DISPOSAL

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

**Pesticide Storage**: Store in a cool place. Do not store in direct sunlight. Protection from freezing temperatures.

**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: Nonrefillable container (Equal to or less than 5 gallons)**. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable container (Greater than 5 gallons)**. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available.

**Refillable Container**: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.
Read the Conditions of Sale–Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.

The directions on this label are believed to be reliable and must be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. To the extent consistent with applicable law, the Company makes no other warranties or representations of any kind express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company’s election, one of the following:
1. Refund of the purchase price paid by buyer or user for product bought, or
2. Replacement of the product used

To the extent consistent with applicable law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and use accept it, subject to the foregoing conditions of sale and limitation of warranty, liability, and remedies.

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