

400-590

09/01/2011

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:
400-590

Date of Issuance:
SEP -1 2011

NOTICE OF PESTICIDE:
[x] Registration
[] Reregistration
(under FIFRA, as amended)

Term of Issuance: unconditional

Name of Pesticide Product:
Percutio XT

Name and Address of Registrant (include ZIP Code):
Chemtura Corporation
199 Benson Road
Middlebury, CT 06749-0001

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

The Basic and Alternate Confidential Statements of Formula (CSFs) dated 03/17/2011 are acceptable.

This product is registered in accordance with FIFRA section 3(c)(5) provided that you:

- 1. Submit and/or cite all data required for registration review/reregistration of your product when the Agency requires all registrants of similar products to submit data.
2. Make the following label revision:
a. a. Revise "EPA REG. NO. 400-LON" to "EPA REG. NO. 400-590." Assure that the establishment number and net contents are also added to the final printed label.
3. Should you wish to retain the company's website on your label, then please be aware that the language presented in the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to the false and misleading provisions of 40 CFR 156.10(a)(5). Therefore should the Agency find or if it is brought to our attention that a website contains claims substantially differing from the EPA approved section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.
4. Submit one (1) copy of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

If you have any questions regarding this notice, please contact Maggie Rudick of my staff at 703-347-0257 or rudick.maggie@epa.gov.

Signature of Approving Official:

Kable Bo Davis
Project Manager 25
Herbicide Branch
Registration Division (7505P)

Date:

SEP -1 2011
SEP -1

ACCEPTED
with COMMENTS
In EPA Letter Dated:

SEP-1 2011

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
400-590

Percutio™ XT



PERCUTIO™ XT is a Co-Pack Product for use as a selective herbicide for Rice weed control in the states of Arkansas, Louisiana, Mississippi, Missouri, Tennessee, and Texas Containing PERCUTIO™ WG and QuinStar® Herbicide Tank Mix of STRADA WG and QuinStar Herbicide (Hereafter Referred to as PERCUTIO XT)

PERCUTIO® WG	QuinStar® Herbicide
Active ingredient:	Active ingredient:
Orthosulfamuron 50.0%*	3,7-dichloro-8-quinolinecarboxylic acid.. ... 75.0%
Other ingredients.....50.0%	Other ingredients..... 25.0%
Total 100.0%	Total 100.0%
*Contains 0.47 pounds active ingredient	*Contains 2.81 pounds active ingredient
PERCUTIO™ is a trademark of Chemtura Corporation	QuinStar® is a registered trademark of Albaugh, Inc.

This co-pack contains two separate products that must be used and applied together. Upon opening, both chambers need to be completely transferred to the spray tank.

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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).

FIRST AID	
If swallowed:	<ul style="list-style-type: none"> • Call 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 the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for further treatment advice.
If in eyes:	<ul style="list-style-type: none"> • 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 center or doctor for further treatment advice.
If inhaled:	<ul style="list-style-type: none"> • 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 center or doctor for further treatment advice.
EMERGENCY ASSISTANCE: Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
EMERGENCY PHONE	800-292-5898
SAFETY DATA AND INFORMATION	866-430-2775
TRANSPORTATION EMERGENCY (CHEMTREC)	800-424-9300

Net Contents:
4.69 pounds
(3.75 lbs QuinStar + 0.94 lbs PERCUTIO WG)

EPA REG. NO. 400-
EPA EST. NO.
001

Manufactured for:
Chemtura Corporation
199 Benson Road
Middlebury, CT 06749



www.chemtura.com

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

Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with skin, clothing, or eyes. Avoid breathing dust or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear the following: Some materials that are chemical-resistant to this product are issued below. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

- Long-sleeved shirt and long pants
- Chemical-resistant gloves Category A, such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber 14 mils
- Shoes plus socks
- Protective eyewear

Wash thoroughly with soap and water after handling. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, 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/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.

ENVIRONMENTAL HAZARDS

Quinclorac has properties and characteristics associated with chemicals detected in groundwater. The use of quinclorac where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Keep out of lakes, ponds and streams. Do not apply directly to water, areas where surface water is present, or to intertidal areas below the mean high water mark, except as specified on this label for use in rice. Do not contaminate arable land and/or water by cleaning of equipment or disposal of rinsate.

IMPORTANT

Injury to or loss of desirable trees, vegetation and/or adjacent sensitive crops may result from failure to observe the following: Avoid all direct or indirect contact with crops other than rice or land scheduled to be planted with crops other than rice due to the potential for sensitivity to the active ingredients in this product.

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. All applicable directions, restrictions, precautions and "Conditions of Sales and Warranty" are to be followed. This labeling must be in the user's possession during application.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with 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. This co-pack includes two separate products that are designed to be used and applied together to the intended site. Agricultural use requirements subject to the Worker Protection Standards are hereby stated in accordance with the most protective of the two product labels:

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 Category A, such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber ≥ 14 mils
- Shoes plus socks
- Protective eyewear

USE INFORMATION

PERCUTIO™ XT product can be used for weed control in dry-seeded and water-seeded rice planting and production cultures. PERCUTIO XT is designed for dilution with water and spraying with common agricultural spray equipment. When applied according to label directions, PERCUTIO XT provides effective control of several annual and perennial broadleaf and grass weeds and sedges. To achieve the best weed control, it is recommended that PERCUTIO XT be applied to young, actively growing weeds.

The sulfonylurea herbicide component is primarily effective via foliar uptake. Once inside the target weed, it is translocated by xylem and phloem. Soon after PERCUTIO XT is applied, growth of susceptible weeds is inhibited and the plants are no longer competitive with rice. Typically, weed leaves turn yellow, then reddish and within 10 to 20 days, depending on weed size, species and growing conditions, the stem and roots die. Treated target weeds, especially larger weeds, may stay green but are stunted and not competitive with the crop.

The quinoline carboxylic acid herbicide component is translocated via xylem and phloem. This component possesses both pre-emergence and postemergence activity. Weedy plants treated with this component may show one or more of the following symptoms: epinasty of the stems and petioles, swelling of the stems and nodes with possible elongation, along with leaf cupping. These symptoms are followed by inhibition of growth, chlorosis especially at the growing points, followed by wilting then necrosis.

Efficacy of this co-pack may depend on the following parameters:

- Weed size at application
- Growing and environmental conditions (e.g. soil moisture, relative humidity and temperature) prior to and following treatment
- Soil pH, texture and organic matter content
- Water management - refer to section below

CROP TOLERANCE

Rice is tolerant to PERCUTIO XT when used according to label use directions and under typical growing conditions. Adverse weather conditions or high use rate from spray overlap or other sources may contribute to leaf twisting, buggy whipping, or other abnormal growth characteristics. In broadcast or water-seeded rice, seed on the soil surface in direct contact with PERCUTIO XT is the most sensitive. These symptoms are typically short-lived and rice usually recovers without a significant stand loss or other injury.

Occasionally, in the presence of unusually cool or very high temperatures, transient symptoms of chlorosis and slight reduction in vigor may appear on rice, but the crop recovers within a few days without any adverse effect on yield.

WATER MANAGEMENT

Irrigation and Flood Water

Optimum weed control with PERCUTIO XT is highly dependent upon proper use of irrigation, including effective flush irrigation to maintain moist soil conditions and timely establishment of permanent flood water. Soil applications and residual activity from foliar applications require moist soil conditions for weeds to uptake the herbicide and be controlled. Therefore, keep the soil moist to maintain weed control. If the soil is permitted to dry and weeds emerge, flush irrigate the field to reactivate the residual activity of the herbicide while weeds are small (1" or less). In post-emergence water-seeded rice plantings and in pin-point flood culture, drain all water from the rice field and ensure seedling rice has at least two leaves before applying PERCUTIO XT. Rice seedlings without 2 leaves may be injured. Flood water levees must be formed prior to applying PERCUTIO XT for more consistent weed control. Residual weed control on the levee is dependent on moist soil conditions on the levee. If soil on the levee dries, erratic weed control may result. If a heavy rain occurs after applying PERCUTIO XT, drain the excess water from the rice field to avoid possible rice injury.

Before applying PERCUTIO XT to water-seeded rice, water levels in the rice field must be drained or lowered to allow exposure of the weed leaf surface for maximum uptake of the product by the leaves. It is required that the field be drained or the water level be lowered the day before the application. If the field cannot be drained before

application, the water level must be reduced so that at least 70% of the weed leaf surface area is above the floodwater. Bring the field to normal flood level 24 - 48 hours after application.

If the soil is allowed to dry after application, a reduction in efficacy and weed re-growth may occur. Additional weed emergence may occur if the field is not flooded soon after application.

Do not apply this product through any type of irrigation system.

APPLICATION INSTRUCTIONS - RICE

PERCUTIO XT may be applied to rice fields to control barnyardgrass, propanil-resistant barnyardgrass, other annual grasses, and certain sedge and broadleaf weeds listed on this label. The entire contents of this co-pack container must be emptied into the spray-tank and applied to the intended site.

Application Equipment: Whenever possible, spray mixtures should be applied using ground spray equipment. Ensure ground and aircraft spray equipment is properly calibrated and spray coverage is uniform. Always use spray nozzles and other equipment designed to reduce accidental spray drift. Always use drift control products and limit spray applications to periods when wind and other weather conditions do not favor spray drift beyond the border of the rice field.

Soil Applications: PERCUTIO XT can be applied to the soil surface before, during, or after planting of dry-seeded rice. When applied to the soil surface and activated by rainfall or irrigation, roots of susceptible grasses and broadleaf weeds uptake the herbicide resulting in commercially acceptable control before weed competition reduces rice productivity. Soil texture and clay content determines the proper use rate for optimum weed control, with heavier soil textures and higher clay content requiring higher use rates as directed in Table 1.

Foliar Applications: PERCUTIO XT can be applied to the foliage of susceptible grasses and broadleaf weeds in dry-seeded and water-seeded rice. When applied to weed foliage, leaves and stems partially uptake the herbicide. It is essential that rice be flushed after a foliar application to maximize root absorption resulting in commercially acceptable weed control. Additionally, the herbicide reaching the soil surface moves into the soil with rainfall or irrigation providing residual weed control. In general, smaller weeds are more effectively controlled with lower use rates, with larger weeds requiring higher use rates for more complete control. The use rates in Table 2 are for foliar applications to provide commercially acceptable control of susceptible weeds based on weed size or growth stage.

GROUND APPLICATION

Whenever possible, spray mixtures containing PERCUTIO XT should be applied using ground spray equipment. Do not make spray applications when wind speed is greater than 10 mph, when air temperatures exceed 90°F, or when environmental conditions exist for temperature inversions.

Application Information:

Preplant/Pre-emergence and Delayed Pre-emergence:

Water Volume: apply 10-40 gallons of water per broadcast acre

Spray Pressure: Use 25-40 psi

Post-emergence:

Water Volume: Apply 10-20 gallons of water per broadcast acre.

Spray Pressure: Use 25-40 psi

AERIAL APPLICATION

If application with ground spray equipment is not possible, application by aircraft is acceptable, provided the aerial applicator understands the risks and assumes the liability associated with accidental spray drift from aerial application. Do not make spray applications when wind speed is greater than 8 mph, when air temperatures exceed 90°F, or when environmental conditions exist for temperature inversions.

Application Information:

Water Volume: Apply a minimum of 5 gallons of water per acre.

Spray Pressure: Use a maximum of 40 psi.

RATE INFORMATION

The maximum rate is 10.5 oz per acre per year (equivalent to 0.066 lb ai orthosulfamuron and 0.393 lb ai quinclorac per acre) or 1 bottle of combined product of 4.69 lbs per 7.15 acres).

Timing and Application Rate Tables

Table 1. Pre-emergence application rate by soil type - dry-seeded rice culture only

Soil Texture	PERCUTIO XT Co-pack Use Rate (lb combined active ingredient per acre)	PERCUTIO XT Co-pack Use Rate (oz product per acre)	Broadcast Treated Acres Per Bottle
Sand or Loamy sand	DO NOT USE		
Sandy loam	0.285 - 0.35	6.5 - 8	11.2-9.4
Loam, Silt loam, Silt, Sandy clay, or Sandy clay loam	0.328 - 0.437	7.5 - 10	10-7.5
Silty clay loam, Silty clay, Clay loam, or Clay	0.328 - 0.437	7.5 - 10	10- 7.5

Do NOT use this PERCUTIO XT pre-emergence in water-seeded rice culture.

Table 2. Post-emergence application* rates per acre for grass and broadleaf weed control and expected soil residual lengths.

	Small weeds controlled and short-term soil residual	Larger weeds controlled and longer-term soil residual
Annual Grass Weed Species Listed Below	6.5 - 8 oz up to 2 inches	7.5 - 10.5 oz up to 3 inches
Broadleaf Weed Species Listed Below	6.5 - 8 oz up to 3 - 4 leaves	7.5 - 10.5 oz up to 6 leaves
Weeds Partially Controlled or Suppressed	10.5 oz	10.5 oz

*Rice must be in at least the 2-leaf stage. For best control, establish permanent flood within 2 days after PERCUTIO XT application

Table 3. List of Weeds Controlled by PERCUTIO XT

Common name	Scientific name
Arrowhead spp.*	<i>Sagittaria spp. *</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Broadleaf signalgrass	<i>Urochloa platyphylla</i>
Ducksalad *	<i>Heteranthera limosa*</i>
Eclipta	<i>Eclipta prostrata</i>
Falsepimpernel spp.	<i>Lindernia spp.</i>
Gooseweed	<i>Sphenoclea zeylanica</i>
Hemp sesbania	<i>Sesbania herbacea</i>
Jointvetch spp. (Indian and northern)	<i>Aeschynomene spp.</i>
Junglerice	<i>Echinochloa colonum</i>
Large crabgrass	<i>Digitaria sanguinalis</i>
Monochoria	<i>Monochoria vaginalis</i>
Morningglory spp.	<i>Ipomoea spp.</i>
Prickly sida	<i>Sida spinosa</i>
Purple ammannia*	<i>Ammannia coccinea*</i>
Redstem*	<i>Ammannia auriculata*</i>
Rice flatsedge	<i>Cyperus iria</i>
Smallflower umbrella sedge *	<i>Cyperus difformis*</i>
Smartweed spp.	<i>Polygonum spp.</i>
Spreading dayflower	<i>Commelina diffusa</i>
Waterhyssop spp.	<i>Bacopa spp.</i>
Waterplantain spp. (seedling)*	<i>Alisma spp.*</i>
Weeds Partially Controlled or Suppressed ***	
Alligatorweed	<i>Alternanthera philoxeroides</i>
Texasweed	<i>Caperonia palustris</i>
Mexicanweed	<i>Caperonia castaniifolia</i>
Yellow nutsedge**	<i>Cyperus esculentus **</i>

* PERCUTIO XT does not control ALS resistant biotypes of this weed, which might be present in the field.

** An earlier treatment is suggested to prevent nutsedge from competing with the crop. An additional herbicide application may be needed for effective control of heavy infestations.

*** Control of suppressed weeds may be significantly improved using tank mixtures.

Notes: Weeds with gradual and late emergence (like purple ammannia) may escape an early herbicide application. As previously mentioned, optimum weed control is generally obtained when applications are made to young (less than 4-leaf) weeds that are actively growing.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift is the responsibility of the applicator. The interaction of weather related factors and equipment determine the potential for spray drift. Application should only be made when there is little or no hazard of spray drift. The applicator, crop consultant, and/or grower are responsible for considering all factors when determining whether or not to apply this product.

Avoid all direct or indirect contact with non-target plants. Do not apply directly to or near desirable vegetation. Allow an adequate distance between target application area and desirable plants to minimize any potential exposure.

Sensitive Areas: Pesticides must only be applied when the potential for spray drift to adjacent sensitive non-target areas (e.g., residential areas, known habitat for threatened or endangered plant species, bodies of water, non-target crops, etc.) is minimal (e.g., when wind is blowing away from the sensitive areas). Avoid disturbing (e.g. cultivating) treated areas for at least 7 days following application.

Sensitive Crops:

Sensitive crops are defined as all non-target crops

Buffer Zones:

Buffer zone is defined as the distance between the application site and the non-target sensitive crop.

Aerial applications shall not be made closer than 200 feet from sensitive crops.

Ground applications shall not be closer than 25 feet from sensitive crops when wind direction during the ground application is away from sensitive crops.

Ground applications shall not be closer than 200 feet from sensitive crops when wind direction is towards sensitive crops.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

FOR ALL AREAS: The following drift management requirements must be followed to avoid off-target spray drift movement from aerial applications:

1. The distance between the outer most nozzles on the boom must not exceed 70% of the wingspan of fixed-wing aircraft or 80% of the helicopter rotor width.
2. Nozzle set up must use a coarse spray quality category per ASAE S-572 Standard.

States that have more stringent spray drift regulations must be followed.

In general, the best spray drift management strategy is to apply the largest droplets that provide sufficient coverage and control.

INFORMATION ON DROPLET SIZE

- For ASAE S-572 Standard compliance, see nozzle manufacturer catalogs, NAAA booklet, USDA literature, or website <http://apnrn.usda.gov/> for nozzle and application conditions.
- The best drift management strategy is to apply the largest droplets that provide sufficient plant coverage and pest control. Larger droplets reduce drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

CONTROLLING DROPLET SIZE

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.
- **Boom Length** - For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height** - Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

WIND

Drift potential is lowest between wind speeds of 2-8 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind direction and high inversion potential. Application is not allowed when wind speeds exceed 8 mph due to risk of direct drift to nontarget sensitive crops or locations.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Note: Follow State and local regulations with regard to minimum and maximum wind speeds during aerial application, as they may be more restrictive. Applicators must be familiar with State and local regulations.

TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures 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 or an aircraft smoke generator.

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 air mixing.

SENSITIVE AREAS

The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

ENDANGERED SPECIES

If endangered plant species occur in the proximity of the application site, the following mitigation measure is required to avoid adverse nontarget effects:

- Leave untreated downwind buffer zones of 25 feet for ground applications or 200 feet for aerial applications

To determine whether your county has an endangered terrestrial plant species, consult <http://www.epa.gov/espp/usa-map.htm>. Endangered Species Bulletins may also be obtained from state or county extension offices or state pesticide agencies. If the bulletin is not available for your specific area, check with the appropriate local state agency to determine if known populations or terrestrial endangered plants occur in the area to be treated.

CLEANING SPRAY EQUIPMENT

All mixing equipment and air spray equipment should be thoroughly cleaned before and after mixing and applying PERCUTIO XT.

SPRAYER TANK CLEANOUT

DO NOT USE CHLORINE BLEACH WITH AMMONIA

To avoid injury to desirable crops, clean all mixing and spray equipment before and immediately following applications of PERCUTIO XT as follows:

- Drain remaining spray solution from spray tank. Thoroughly rinse spray tank, boom, and hoses with clean water. Remove the nozzles, screens and any components contacting the spray solution and clean separately in a bucket containing ammonia and water. Loosen and physically remove any visible deposits.
- Fill the tank with clean water and 1 gallon of household ammonia (minimum 3% ammonia) for every 100 gallons of water. Flush the hoses, boom, and nozzles with the cleaning solution.*
- Refill the spray tank back to full. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Again flush the hoses, boom, and nozzles with the cleaning solution and then drain the tank.
- Remove the nozzles, screens and components as before and clean separately in a bucket containing ammonia and water.
- Repeat step 2.
- Rinse the tank, boom, and hoses with clean water.
- The rinsate may be disposed of on-site or at an approved disposal facility.

* If using an ammonia product that is not 3% ammonia, an equivalent amount of an alternate strength ammonia solution can be used in the clean out procedure. Carefully read and follow the individual cleaner instructions.

ADDITIVES

For postemergence applications only, adding 2 pints of crop oil concentrate per acre will improve leaf and stem uptake of the herbicide and enhance weed control.

DRIFT CONTROL PRODUCTS:

Drift control products should always be added to the spray solution to affect spray droplet size and other characteristics, reducing the potential of off target accidental spray drift.

MIXING ORDER

1. Fill the tank at least one-half full of water and begin agitation. **Maintain agitation during the filling process and until the application is complete.**
2. Products in PVA bags: Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
3. Add materials in the following order: PERCUTIO XT, dry flowables (DF), wettable powders (WP), aqueous suspensions (AS), flowables (F), and liquids (L). Note that the quantity of spray solution prepared should allow for the use of the entire contents of this co-pack bottle. No product should be left in either chamber of the bottle. (See Tables 1 and 2 in the Application Instructions Section above.)
4. Allow each material to completely disperse before adding the next material.
5. While continuing agitation, fill the tank to three-fourths full.
6. Add any solution (S) formulations and surfactants.
7. Bring the tank to final volume
8. Maintain agitation during the filling process and until the application is complete. If agitation and application are stopped, suspended materials may settle out to the bottom of the tank. It is very important to re-suspend all materials in the tank before applications are resumed. Sparger-type agitators are useful for these circumstances. Tank mixtures should not be allowed to remain in the spray tank overnight.

Refer to the companion herbicide label(s) for all applicable use directions, restrictions (including any water-holding requirements), and precautions. Read and follow the entire label of each product to be used in the tank mixture with this product.

Tank mixtures should not be applied if the crop is under severe stress due to drought, water saturated soils, poor fertility (especially low nitrogen levels), hail, frost, insects or when the maximum daytime temperature is above 90°F Tank mix applications under these conditions may cause temporary crop injury.

TANK MIXING INFORMATION

Tank mixture compatibility testing: Before tank mixing PERCUTIO XT with other pesticides or materials, it is recommended that a compatibility or jar test be performed. In order to perform the compatibility test, the relative proportions of the materials being considered for tank mixture should be added to a clear quart jar. After addition to the jar, invert or shake the jar numerous times to ensure complete mixing then observe the jar for at least one-half hour. If precipitates (sludges, layers, flakes, balls, etc.) form, the tank mixture combination is not compatible and should not be used.

While PERCUTIO XT herbicide is effective in controlling a broad spectrum of annual grasses and broadleaf weeds, more effective weed control may be obtained or additional weeds may be controlled by tank mixing with other herbicides labeled for weed control in rice. The table below describes some weed situations where tank mixing is appropriate. Read and follow all use directions, precautions, and restrictions for each herbicide in the spray mixture. The most restrictive labeling applies to tank mixtures.

Table 2. Tank Mixtures¹

Weed	Tank Mix Information
Clearfield® Rice	To improve grass and broadleaf spectrum and weed control efficacy, tank mix 6.5 to 10.5 oz per acre PERCUTIO XT with : 4 to 6 oz per acre Newpath®
Yellow nutsedge	Tank mix 5 to 10.5 oz per acre PERCUTIO XT with : 0.25 - 0.5 oz per acre halosulfuron (Permit®, Halomax®)
Hemp sesbania >6-leaf or 6 inches Morningglory spp.	For faster activity and improved stem desiccation, tank mix 5 to 10.5 oz per acre PERCUTIO XT with : 0.5 - 1 oz per acre Aim® 2EC OR 2 - 4 lb ai per acre propanil

¹ Apply tank mix after rice has reached the 2 to 3-leaf stage.

RESTRICTIONS AND LIMITATIONS - RICE

- Rainfast within 6 hours.
- Do not apply after 1/2 inch internode elongation or within 40 days of harvest, whichever is more restrictive. Do not apply to rice that is heading.
- Aerial applications shall not be made closer than 200 feet from sensitive crops.
- Ground applications shall not be closer than 25 feet from sensitive crops when wind direction during the ground application is away from sensitive crops.
- Ground applications shall not be closer than 200 feet from sensitive crops when wind direction is towards sensitive crops.
- Do not enter treated fields until 12 hours after application (RE1 = 12 hours).
- Use of an approved crop oil concentrate at 2 pints per acre is necessary for PERCUTIO XT performance.
- Poor weed control may result from application of PERCUTIO XT made to plants under stress from abnormally hot or cold weather; environmental conditions such as drought, hail damage, hydrogen sulfide or prior herbicide applications.
- Do not apply where runoff or irrigation water may flow directly onto agricultural land other than rice fields.
- Do not apply PERCUTIO XT directly or indirectly to crops other than rice.
- Application of PERCUTIO XT to fields which have been levelled (except water levelling) within 12 months prior to application may result in rice injury in areas that have been cut or filled.

- Do not apply more than 10.5 oz PERCUTIO XT per acre per year (equivalent to 0.066 lb ai orthosulfamuron and 0.393 lb ai quinclorac per acre, or 1 bottle combined product per 7.15 acres).
- If a separate application of quinclorac active ingredient is sequentially made, do not exceed a total of 0.67 lbs active ingredient per acre per season.
- Only one application per year is permitted.
- Do not allow tank mixtures containing PERCUTIO XT to sit overnight.
- Chemigation or applications through any type of irrigation system is not allowed.
- For use only in the states of Arkansas, Louisiana, Mississippi, Missouri, Tennessee, and Texas.
- **Soil Restrictions:**
- Do not use PERCUTIO XT on precision-cut fields until the second rice crop as injury can occur
- Do not use PERCUTIO XT on sand and loamy sand soils.
- Apply tank mix after rice has reached the 2 to 3-leaf stage.
- Do not apply to rice fields with a history of poor water-holding capacity (porous subsoil), as erratic weed control may result.
- Do not apply PERCUTIO XT on any rice soil that does not have an impermeable hard pan to provide good water holding capacity
- **Drift Concerns:** Do not allow PERCUTIO XT to drift outside of the intended target areas
- **Ground application:** Do not apply when wind speed is greater than 10 mph.
- **Aerial application:** Do not apply when wind speed is greater than 8 mph.
- **Temperature Inversions:** Do not apply PERCUTIO XT when air temperatures exceed 90°F.
- Do not use rice straw or processing by-products (such as chaff, hulls, etc.) as soil amendments or mulch for high-value crops such as bedding stock, vegetable transplants, or ornamental and fruit trees.
- Do not use treated rice fields for the aquaculture of edible fish and crustacea (crayfish).
- Do not use water from rice cultivation after a PERCUTIO XT application to irrigate any crop other than rice.
- PERCUTIO XT cannot be used to formulate or reformulate any other pesticide product.
- Do not apply this product through any type of irrigation system

STATE SPECIFIC RESTRICTIONS:

Because there are additional state restrictions in Arkansas, contact the Arkansas Plant Board or a representative for specific instructions about applying product containing quinclorac in Arkansas.

In Arkansas, PERCUTIO XT must not be applied in an area from one mile west of Highway # 1 to one mile east of Highway #163 from the Craighead-Poinsett County line to the Cross-Poinsett County line. Furthermore, no aerial application is allowed in the area of Poinsett County one mile west of Highway # 1 to two miles west of Highway # 1 and one mile east of Highway # 163 to Ditch #10, from the Craighead-Poinsett County line to the Cross- Poinsett county line.

RESISTANCE MANAGEMENT

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of herbicide resistance is well understood, it is not easily predicted. Therefore, herbicides should be used in conjunction with the resistance management strategies in the area. Consult the local or state agricultural advisors for details. If herbicide resistance should develop in this area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control cannot be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain or weed may have developed.

To reduce the potential for weed resistance use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the listed rates and in accordance with the use directions. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications

when weeds are smaller rather than larger. If resistance is suspected, contact the local or state agricultural advisors

ROTATIONAL CROP INFORMATION

- **Crop Rotation Restrictions:** Do not plant any crop other than rice for a period of 309 days following application, after which time cotton, soybeans, sugarcane, corn and small grains may be planted.
- Eggplants and tobacco should not be planted within 12 months in fields treated with PERCUTIO XT.
- Tomatoes and carrots should not be planted within 24 months in fields treated with PERCUTIO XT. In case of crop failure, only rice may be immediately replanted
- All other crops not mentioned may be planted after 12 months following application.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in cool, dry and well-ventilated area. Do not store containers under wet conditions.

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

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse non-refillable < 50 pounds as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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.

Triple rinse non-refillable > 50 pounds as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

IMPORTANT NOTICE—Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product, contrary to label instructions, or under conditions not reasonably foreseeable to seller, and to the extent consistent with applicable law, the buyer assumes the risk of any such use.

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