

GROUP

4

2

HERBICIDES

# Mazequin

An Herbicide For Use on Clearfield® Rice Varieties & Hybrids  
(not less than 75% hybrid seed)

**ACTIVE INGREDIENTS:**

	% BY WT.
Quinclorac: 3,7-dichloro-8-quinolinecarboxylic acid.....	61.98%
Imazethapyr: (+)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid .....	13.02%

<b>OTHER INGREDIENTS:</b> .....	25.00%
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<b>TOTAL:</b> .....	100.00%
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## 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 label booklet for complete First Aid, Precautionary Statements,  
Directions For Use, and Storage and Disposal.

Manufactured For:

**Sharda USA LLC** 

7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

EPA Reg. No.: 83529-83

EPA Est. No.: 39578-TX-001

**Net Contents: 7.5 lbs.**

<b>FIRST AID</b>	
<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 a 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 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 eyes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOTLINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at <b>1-800-222-1222</b> .	

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

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of butyl rubber  $\geq 14$  mils, natural rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, or nitrile rubber  $\geq 14$  mils
- Shoes plus socks

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

<b>USER SAFETY RECOMMENDATIONS</b>
<b>Users should:</b> <ul style="list-style-type: none"> <li>• Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.</li> <li>• Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.</li> <li>• 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.</li> </ul>

**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 cleaning equipment or disposing of equipment washwaters or rinsate.

#### **GROUND WATER ADVISORY**

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

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes or reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained.

The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad.

Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. Product must be used in a manner which will prevent back-siphoning in wells, spills or improper disposal of excess pesticide/spray mixture.

States may have in effect additional requirements regarding wellhead setbacks and operational containment.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying. This label must be in the possession of the user at the time of pesticide application.

Do not make application of 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 State or Tribal agency responsible for pesticide regulation.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY AND/OR POOR WEED CONTROL.**

#### 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), notification to workers, and restricted-entry interval (REI). 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 butyl rubber  $\geq 14$  mils, natural rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, or nitrile rubber  $\geq 14$  mils
- Shoes plus socks

#### PRODUCT INFORMATION

**Mazequin** is an herbicide for use in Clearfield® Rice. Applications can be made pre-plant up to 7 days before rice planting, pre-emergence and post-emergence for weed control in **Clearfield® rice** (imidazolinone-tolerant rice) only. Make application of **Mazequin** only on selected rice varieties or hybrids (not less than 75% hybrid seed) labeled as “**Clearfield**” and warranted by the seed company to possess tolerance to direct application of certain imidazolinone herbicides. Do not make application of **Mazequin** to rice varieties or hybrids (less than 75% hybrid seed) that lack tolerance to imidazolinone herbicides because **Mazequin** will kill all non-imidazolinone-tolerant varieties or hybrids. Contact your seed supplier, chemical dealer or Sharda USA LLC to obtain information regarding imidazolinone-tolerant rice varieties.

Adhere to **Part 201.11a Hybrid** of the Federal Seed Act Regulations, labeling agricultural seeds: If any one kind or kind and variety of seed present in excess of 5% is “hybrid” seed, it shall be designated “hybrid” on the label. The percentage that is hybrid shall be at least 95% of the percentage of pure seed shown unless the percentage of pure seed which is hybrid seed is shown separately. If 2 or more kinds or varieties are present in excess of 5% and are named on the label, each that is hybrid shall be designated as hybrid on the label. Any one kind or kind and variety that has pure seed which is less than 95% but more than 75% hybrid seed as a result of incompletely controlled pollination in a cross shall be labeled to show (a) the percentage of pure seed that is hybrid seed or (b) a statement such as “Contains from 75% to 95% hybrid seed.” No one kind or variety of seed shall be labeled as hybrid if the pure seed contains less than 75% hybrid seed.

**Mazequin** kills weeds by root and/or foliage uptake and rapid translocation to the growing points. It is important that there is adequate soil moisture for optimum **Mazequin** activity. When adequate soil moisture is present, **Mazequin** will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil. Activity of **Mazequin** on susceptible weeds is typically visible in 10 to 14 days.

Crops growing under stressful environmental conditions can exhibit various injury symptoms that may be more pronounced if herbicides are used. **Clearfield® rice** plants treated with **Mazequin** may exhibit a slight height reduction, leaf twisting, buggy whipping, or other abnormal growth characteristics. In broadcast or clear water-seeded rice, seed on the soil surface in direct contact with **Mazequin** is the most sensitive. Such effects occur infrequently and are temporary. Normal growth and appearance should resume within 2 to 4 weeks.

Application of **Mazequin** can be made to **Clearfield® rice** under all tillage systems, drill or broadcast dry-seeded and clear water-seeded (tolerant varieties and hybrids only). The timing of application may vary with these production systems.

Use of **Mazequin** in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible. Under some conditions (such as heavy texture soil, high organic matter or low pH), **Mazequin** may cause injury to subsequent planted crops. Vegetable crops, cotton and non-**Clearfield rice** are sensitive to **Mazequin** residues in the soil.

### Replanting

If replanting is necessary in a field previously treated with **Mazequin**, the field may be replanted to **Clearfield rice**. Rework the soil no deeper than the treated zone. Do not apply a second treatment of **Mazequin** or any other imidazolinone-containing or quinclorac-containing products.

Naturally occurring biotypes\* of some weeds listed on this label may not be effectively controlled by this and/or other products with either the ALS/AHAS enzyme-inhibiting mode of action. Other herbicides with ALS/AHAS enzyme mode of action include sulfonyleureas (e.g., Londax® herbicide, Accent® herbicide, Ally® herbicide, Basis® herbicide, Classic® herbicide, Exceed® herbicide, Harmony® Extra herbicide, Permit® herbicide, Pinnacle® herbicide, Regiment™ herbicide, etc.), the sulfonamides (e.g., Broadstrike® herbicide, etc.) and the pyrimidyl benzoates (e.g., Staple® herbicide, etc.). If naturally occurring ALS/AHAS-resistant biotypes are present in a field, tank mix or sequentially apply **Mazequin** and/or any of the ALS/AHAS enzyme-inhibiting mode-of-action herbicides with an appropriate registered herbicide having a different mode of action to ensure control.

\*A weed biotype is defined as a plant that is naturally occurring within a given species that has a slightly different, but distinct, genetic makeup from other plants.

### Product Restrictions

- Do not use in California.
- **Mazequin** may be used only on **Clearfield® rice** in the United States (not for use in California).
- **Pre-Harvest Interval (PHI)**: 45 days between the last application of **Mazequin** and rice harvest.
- Do not apply this product through any type of irrigation system.
- **Arkansas**: Application of **Mazequin** must not be made 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. Contact the Arkansas Plant Board or a representative for specific instructions.
- Do not apply more than 1 application of **Mazequin** in a use season to **Clearfield®** varieties or **Clearfield®** hybrids (not less than 75% hybrid seed).
- Do not use water from **Mazequin**-treated field to irrigate food or feed crops that are not registered for use with **Mazequin**.
- Do not make application of **Mazequin** to rice that is heading.
- Do not use flood water as a water source for livestock.
- Do not use **Mazequin** on precision-cut fields until the second rice crop or injury can occur.
- Do not use **Mazequin** on sand and loamy sand soils.
- Do not make application to rice fields with a history of poor water-holding capacity (porous subsoil) or erratic weed control may result.
- Do not make application of **Mazequin** on any rice soil that does not have an impermeable hardpan to provide good water-holding capacity.
- Do not use rice straw or processing byproducts (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 crustaceans (crayfish).
- Sharda USA LLC intends that **Mazequin** cannot be used to formulate or reformulate any other pesticide product.

### **Resistance Management**

There is potential risk of resistance development in some weeds against the herbicides that have been used repeatedly. While the development of resistance is well understood, it is not easily predicted. Therefore, herbicides must be used in conjunction with resistance management strategies in your area. Consult your local or State agricultural advisors for details. If weed resistance develops in your 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 timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain 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 specified labelled rates and in accordance with the use directions. Do not use less than specified label rates alone or in tank mixtures. 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.

### **INTEGRATED WEED PEST MANAGEMENT**

Integrate **Mazequin** into an overall weed management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

### **Spraying Instructions**

Make application of **Mazequin** only to **Clearfield® rice** varieties and hybrids (not less than 75% hybrid seed). Do not make application when wind velocity is greater than 10 mph for ground application or 5 mph for aerial application, when temperature inversion conditions exist, or when spray may be carried to sensitive crops. Sensitive crops include, but are not limited to, leafy vegetables, cotton, tomatoes, and non-**Clearfield® rice** varieties and hybrids.

### **Ground Applications**

Whenever possible, make application of spray mixtures containing **Mazequin** with ground spray equipment. Make a uniform application with properly calibrated ground equipment in 10 or more gallons of water per acre with a recommended spray pressure of 20 to 40 PSI. Adjust the boom height to ensure proper coverage of weed foliage (according to the manufacturer's recommendation). Use only flat-fan nozzle tips for post-emergence applications. Avoid overlaps when spraying.

#### **Ground Application Restriction:**

- 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.

### **Aerial Applications**

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. Use a maximum of 40 PSI spray pressure. **Mazequin** may be applied by air only to **Clearfield® rice** varieties and hybrids (not less than 75% hybrid seed). Uniformly apply with properly calibrated aerial equipment in 10 or more gallons of water per acre. When applied post-emergence, for optimum weed control, the addition of an adjuvant is required. Apply a crop oil at 1% v/v (1 gallon per 100 gallons of spray solution) with tolerant varieties or hybrids.

#### **Aerial Application Restriction:**

- Do not apply when wind speed is greater than 5 mph, when air temperature exceeds 90°F, or when environmental conditions exist for temperature inversions.

### **Spray Drift Management**

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they must be observed.

The applicator must be familiar with and take into account the information covered in the **AERIAL DRIFT REDUCTION ADVISORY INFORMATION** presented below.

### **AERIAL DRIFT REDUCTION ADVISORY INFORMATION**

#### **Importance of Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind, Temperature and Humidity**, and **Temperature Inversion** section of this label).

#### **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** - Use the lower spray pressures specified for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. 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 backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the 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 larger droplets than other nozzle types.

**Boom Length** - For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  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 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

### 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 should 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 upwards and rapidly dissipates indicates good vertical air mixing.

### Sensitive Areas

The pesticide should 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). Avoid all direct or indirect contact (such as spray drift) of **Mazequin** with crops other than those specified for treatment on this label since injury may occur. To the extent consistent with applicable law, applicator is responsible for any loss or damage which results from spraying **Mazequin** in a manner other than specified in this label. In addition, applicator must follow all applicable State and local regulations and ordinances in regard to spraying.

### MIXING INSTRUCTIONS

**Post-emergence applications of Mazequin for Clearfield rice require the addition of an adjuvant.** When an adjuvant (or a specific adjuvant product, such as a drift control agent) is to be used with this product, the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant is recommended. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### Adjuvants

When using with Clearfield® rice, add crop oil at 2 pints per acre or 1 quart per acre. Fill the spray tank  $\frac{1}{2}$  to  $\frac{3}{4}$  full with clean water. Use a calibrated measuring device to measure the required amount of **Mazequin**. Add **Mazequin** to the spray tank while agitating. Add adjuvants and fill the remainder of the tank with water.

### Tank Mix Combinations with Other Herbicides

To avoid injury to sensitive crops, spray equipment used for **Mazequin** applications must be drained and thoroughly cleaned with water before being used to apply other products. When **Mazequin** is used in combination with another herbicide, refer to the respective label for rates, methods of application, proper timing, weeds controlled, restrictions and precautions. Always use in accordance with the more restrictive label restrictions and precautions. Do not exceed label dosages. Do not mix **Mazequin** with any product containing a label prohibiting such mixtures.

### Tank Mixing Instructions

1. Fill the tank  $\frac{1}{2}$  full with clean water.
2. Add the proportional labeled amounts of the products to be used to the tank in the following sequence:
  - a. Soluble-packet products and thoroughly mix;
  - b. Wettable powders, Dry flowables, Dispersible granules, or Liquid flowables not in soluble packets;



- c. Add **Mazequin** and thoroughly mix;
  - d. Add other aqueous solution products;
  - e. Add emulsifiable concentrate products;
  - f. Add crop oil to the spray tank; and
  - g. Lastly, add the remaining water.
3. Maintain agitation during tank mixture preparation and through application.
  4. If agitation is stopped for any reason, tank mixture may settle. If settling occurs, the tank mixture must be resuspended before spraying. Resuspension may take longer and be more difficult than initial mixture process.

#### **Sprayer Clean-Up**

To avoid adverse crop response or crop injury to non-target crops, thoroughly clean and drain spray equipment used to make applications of **Mazequin** after each use. Cleaning should occur as soon as possible after application of **Mazequin**. All traces of **Mazequin** must be removed before equipment can be used on crops other than barley or wheat. Use the following procedure to clean the spray equipment:

1. Drain any remaining spray tank mixture with **Mazequin** from the spray tank and dispose of according to label disposal instructions.
2. Use a hose to spray down the interior surfaces of the tank with water. Flush booms, nozzles, hoses and tank with clean water for 10 minutes. Fill the spray tank with water and recirculate for 15 minutes. Spray the mixture through the boom, hoses, and nozzles, and drain the tank completely. Rinse water must be disposed of in compliance with local, State, and Federal guidelines.
3. Remove and clean the nozzles and screens separately.
4. Repeat the above steps and thoroughly wash the outside of spray tank and the boom, if the spray tank equipment will be used on crops other than those labeled for use with **Mazequin**.
5. Dispose of all rinsate according to local, State, and Federal regulations.

#### **APPLICATION DIRECTIONS**

Application of **Mazequin** can be made to **Clearfield® rice** under all tillage systems, drill or broadcast dry-seeded and clear water-seeded (tolerant varieties and hybrids only). Application of **Mazequin** can be made pre-plant, pre-emergence, or post-emergence up to 5-leaf rice before establishing permanent flood. The **Mazequin** treatment must be activated by flushing the rice field or by adequate rainfall. To maintain herbicidal activity until a permanent flood is established, subsequent flushing or rainfall is necessary.

#### **SOIL APPLICATION**

In conservation tillage systems, weeds may germinate and emerge from below treated soil resulting in weed escapes. Rainfall (at least 0.5 inch) or flushing that uniformly wets the soil to a depth of 2 inches within 2 days of **Mazequin** application is essential to maximize weed control.

#### **CONSERVATION TILLAGE AND STALE SEEDBED APPLICATION**

Many soils, especially clay soils, are prepared in the fall and not tilled in the spring to ensure an optimum seedbed for rice planting and herbicide application. To control weeds before planting, use a burndown product such as glyphosate or paraquat registered for this use prior to **Mazequin** application. See the below **Pre-Emergence Applications** instructions.

#### **PRE-PLANT APPLICATIONS**

Application of **Mazequin** can be made as a pre-plant treatment up to 7 days before rice planting. Typically, application during final seedbed preparation just before rice planting provides the best weed control. The soil must be free of clods, or weed escapes may occur. If small weeds are present at the time of **Mazequin** application, addition of a glyphosate or paraquat product is recommended.

### PRE-EMERGENCE APPLICATIONS

Application of **Mazequin** can be made as a pre-emergence treatment before rice emergence. Make application immediately after planting for the best results. If weeds are present at time of application, include a burndown product, such as glyphosate or paraquat registered for this use.

Adequate soil moisture is required for optimum herbicide activation for all methods of soil application. If sufficient levels of precipitation (usually 0.5 inch) do not occur within 2 days after treatment, use a flush (flood irrigation) to move **Mazequin** into the weed germination zone for maximum activity. The amount of rainfall or irrigation required after application depends on existing soil moisture, soil texture and organic matter content. Sufficient water to moisten the soil to a depth of 2 inches is normally adequate. When adequate moisture is received after dry conditions, **Mazequin** will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil. **Mazequin** controls weeds by root uptake and translocation to the growing points where it inhibits weed growth. Susceptible weeds may emerge, but growth will stop and the weeds will become noncompetitive with the rice.

### POST-EMERGENCE APPLICATIONS (PRIOR TO PERMANENT FLOOD)

When application of **Mazequin** is made post-emergence, absorption will occur through both the roots and foliage. Susceptible weeds stop growing and either die or become noncompetitive with the crop. Activity of **Mazequin** on susceptible weeds is usually visible in 10 to 14 days. **Mazequin** not only controls many existing broadleaf and grass weeds when applied post-emergence, it also provides control of susceptible weeds that may emerge after application.

- **For Drill-Seeded or Ground Broadcast-Seeded Rice:** Make application of **Mazequin** post-emergence to **Clearfield® rice** varieties and **Clearfield®** hybrids (not less than 75% hybrid seed) in the spike through 5-leaf growth stage, prior to establishing the permanent flood.
- **For Clear Water-Seeded Rice Plantings:** Make application of **Mazequin** post-emergence to **Clearfield® rice** varieties and **Clearfield®** hybrids (not less than 75% hybrid seed) in the 2-leaf growth stage through 5-leaf growth stage, before establishing the permanent flood. In clear water-seeded rice plantings, drain all water from the rice field and ensure seedling rice has at least 2 leaves before applying **Mazequin**. Rice seedlings with less than 2 leaves may be injured.

**Mazequin** must be applied to weeds that are actively growing.

If a heavy rain occurs following application of **Mazequin**, drain the excess water from the rice field to avoid possible rice injury.

Do not make application into standing water (levee furrows or potholes) or flooded rice because weed control will be reduced. Initiate permanent flood within 2 days of post-emergence application or as soon as the growth stage of rice permits. If the permanent flood is delayed and rainfall is insufficient for optimum rice growth, flush to maintain **Mazequin** soil activity and to promote rice development. Include a recommended adjuvant with all post-emergence applications to maximize weed control.

Do not make application of **Mazequin** to **Clearfield® rice** growing under stress induced by adverse conditions, such as other herbicide injury, cool temperatures, saline soil, nutrient deficiency and disease pressure, or to rice when conditions are forecast that stress rice, especially cool temperatures. If applied under these conditions, stunting and/or yellowing may result in rice. Weed control may be reduced when **Mazequin** is applied during stress conditions.

An adjuvant must be added to the spray solution for optimum weed control activity. Refer to the **Adjuvants** section under **MIXING INSTRUCTIONS** for specific instructions.

Make application of **Mazequin** a minimum of 1 hour before rainfall.

### APPLICATION RATES

Make application of **Mazequin** to **Clearfield® rice** varieties and **Clearfield®** hybrids (not less than 75% hybrid seed) at 0.5 to 0.72 lb. per acre pre-plant, pre-emergence, or post-emergence prior to 5-leaf rice. Apply no more than 1 application of **Mazequin** in a single use season to **Clearfield®** varieties and **Clearfield®** hybrids (not less than 75% hybrid seed). Use this product **ONLY** on **Clearfield® rice** varieties and **Clearfield® rice** hybrids (not less than 75% hybrid seed) because **Mazequin** will kill all non-imidazolinone-tolerant varieties.

### WEEDS CONTROLLED

When application is made at 0.5 to 0.72 lb. per acre as directed in the above **APPLICATION RATES** section of this label, **Mazequin** will **control** the weeds listed below:

Weeds Controlled	Leaf Stage (up to)	Maximum Height (Inches)
<b>Annual Grasses</b>		
Barnyardgrass	4	4
Barnyardgrass, propanil-resistant	4	4
Crabgrass, large	3	3
Johnsongrass, seedling	4	5
Junglerice	4	3
Red rice <sup>1,3</sup>	4	5
Shattercane	4	6
Signalgrass, broadleaf	3	2
Sprangletop <sup>2,3</sup>	2	2
<b>Broadleaf Weeds</b>		
Eclipta	3	2
Hemp sesbania	3	2
Jointvetches	3	2
Morningglory (Cypressvine, entireleaf, ivyleaf, palmleaf, pitted, purple moonflower, tall)	3	2
Smartweed spp.	4	3
<b>Sedges</b>		
Nutsedge spp.	4	3
Rice flatsedge	4	3

(continued)

### WEEDS CONTROLLED (continued)

<sup>1</sup>Red rice control requires a sequential application of **Newpath® herbicide**.

<sup>2</sup>Sprangletop control requires a sequential application of **Newpath**. One of the products must be applied pre-plant or pre-emergence, and the second product must be applied post-emergence.

<sup>3</sup>One application of **Mazequin** at the maximum application rate of 0.72 lb. product/acre contains the equivalent amount of 0.094 lb imazethapyr per acre; a sequential application of **Newpath**, as directed for red rice and sprangletop, may not exceed a maximum of 0.094 lb. imazethapyr per acre.

- It is essential that the soil treatment or post-emergence application is activated by flushing the rice field or by adequate rainfall. To maintain herbicidal activity until a permanent flood is established, subsequent flushing or rainfall is necessary after application of **Mazequin**.
- All post-emergence applications must occur before tillering to control grasses.

### WEEDS SUPPRESSED

When application is made as directed in the above **Application Rates** section, **Mazequin** will **suppress** the following weeds:

Alligatorweed	Mexicanweed	Texasweed
Dayflower, spreading	Purple ammannia (Redstem)	Water plantain (Common arrowhead)
Ducksalad		

### HERBICIDE COMBINATIONS

To improve control of the broadleaf weeds listed under **WEEDS SUPPRESSED**, and for acceptable control of other broadleaf weeds, use an appropriate tank mix partner in combination with the post-emergence application of **Mazequin**. Following are suggested partner herbicides and weeds controlled:

- **Prowl® H2O herbicide**. See label for specific rates.
- **Storm® herbicide**. Apply **Storm** at labeled rate for control of dayflower, morningglory, smartweed, cocklebur and enhanced hemp sesbania control. See product label for specific use rates.

When **Mazequin** is used in combination with another herbicide, refer to the respective label for rates, methods of application, proper timing, weeds controlled, restrictions and precautions. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Do not exceed label dosages. Do not mix **Mazequin** with any product containing a label prohibiting such mixtures.

### STEWARDSHIP PRACTICES:

To preserve the long-term efficacy of the **Clearfield® rice** technology, certain stewardship practices are advised:

- Growers must purchase certified seed to produce a single crop as a safeguard against introducing red rice.
- After a crop of **Clearfield® rice**, fallow or rotate the field to a different crop and control red rice with a herbicide with a mode-of-action different from **Mazequin**.
- Consult your seed dealer, agricultural chemical dealer or Sharda USA LLC representative for a copy of the **Clearfield® rice** Technical Bulletin for additional guidance.

#### CROP ROTATION INTERVALS

Planting earlier than the specified interval may result in crop injury. For **Newpath® herbicide** sequential applications that yield a total combined rate of 0.125 lb. ae/acre imazethapyr per season to 0.188 lb. ae/acre imazethapyr per season between the 2 applications, **Soybean** is the only crop that may be planted the following year.

Use of **Mazequin** in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

The below listed crops may be planted following treatment of **Mazequin** at the specified intervals:

Crop	Crop Rotation Intervals
Clearfield rice varieties and hybrids (not less than 75% hybrid seed)	Immediately
Alfalfa; Barley; Edible Beans and Peas (other than Lima Beans and Southern Peas); Field Corn; Field Corn Grown For Seed; Lima Beans; Peanuts; Rye; Southern Peas; Soybeans; Wheat	10 Months
Tobacco	12 Months
Corn (Pop and Sweet); Cotton; Lettuce; Oats; Rice (non-imidazolinone tolerant); Safflower; Sorghum; Sunflower	18 Months
Flax; Potatoes	26 Months
Other Crops Not Listed*	40 Months

\*A successful field bioassay must be completed forty months following a **Mazequin** treatment and prior to planting any crop not listed elsewhere in the **CROP ROTATION INTERVALS**. The field bioassay consists of a test strip of the intended rotational crop planted across the previously treated field and grown to maturity. The test strip should include low areas and knolls, and include variations in soil, such as type and pH. If no crop injury is evident in the test strip, the intended rotational crop may be planted the following year.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a dry, well-ventilated area.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### **Container Handling:**

**[Nonrefillable Container (50 pounds or less):]** Nonrefillable container. 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  $\frac{1}{4}$  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. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. 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. Then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities.

**[Nonrefillable Container (greater than 50 pounds):]** Nonrefillable container. 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  $\frac{1}{4}$  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 mix tank and continue to drain for 10 seconds after the flow begins to drip. 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. Then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.**

#### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, Sharda USA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

All trademarks are the property of their respective owners.

# Mazequin

An Herbicide For Use on Clearfield® Rice Varieties & Hybrids  
(not less than 75% hybrid seed)

<b>ACTIVE INGREDIENTS:</b>	<b>% BY WT.</b>
Quinclorac: 3,7-dichloro-8-quinolinecarboxylic acid	61.98%
Imazethapyr: (+)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid	13.02%
<b>OTHER INGREDIENTS:</b>	<b>25.00%</b>
<b>TOTAL:</b>	<b>100.00%</b>

## 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 label booklet for complete Precautionary Statements and Directions For Use.

### FIRST AID

**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 ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for 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 eyes. Call a poison control center or doctor for treatment advice.

### HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at **1-800-222-1222**.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

Manufactured For: Sharda USA LLC, 7217 Lancaster Pike, Suite A, Hockessin, Delaware 19707  
EPA Reg. No.: 83529-83      EPA Est. No.: 39578-TX-001      Net Contents: 7.5 lbs.

GROUP 4 2 HERBICIDES

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