

80289-6

02/22/2007

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
 Registration Division (7505P)  
 1200 Pennsylvania Ave., N.W.  
 Washington, D.C. 20460

## NOTICE OF PESTICIDE:

Registration  
 Reregistration

(under FIFRA, as amended)

EPA Reg. Number:

80289-6

Date of Issuance:

2-22-07

Term of Issuance:

Conditional

Name of Pesticide Product:

IR5878 0.5GR

Name and Address of Registrant (include ZIP Code):

Isagro S.p.A.  
 Centro Uffici San Siro-Edificio d-ala 3  
 Via Caldera, 21-20153 Milan, Italy

**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.

**This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided you agree in writing to:**

1. Submit the results of the one year storage stability and corrosion characteristics studies.
2. Submit an analytical reference standard to the National Pesticide Standards Repository.
3. For the submitted goat metabolism study (MRIDs 46578962 and 46578963), the registrant needs to provide the dates of sample extraction, initial TLC analysis, and metabolite identification analyses in order to determine sample storage intervals. If the initial quantitative TLC analyses were conducted within 6 months of sample collection, then supporting storage stability data will not be required to support the additional analyses for metabolite identification in goat matrices.
4. Submit radiovalidation data (using samples from the rice metabolism study) for the method chosen for tolerance enforcement purposes. A confirmatory method or method specificity data may also be needed. If the LC/MS/MS method (Report ISA-0102V) is proposed for tolerance enforcement, a separate confirmatory method would not be required if analyte identification is confirmed by analyzing sample extracts using LC/MS/MS and

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demonstrating that the ion ratios for the two MS/MS ion transitions acquired during analysis agree with the average ion ratios obtained from the calibration standards.

5. Follow specific directions for each multiresidue method used by FDA published in that Agency's Pesticide Analytical Manual, Vol. I (PAM Vol. I) and provide recovery data for orthosulfamuron through these methods.

Signature of Approving Official:



James Tompkins, Product Manager (25)  
Herbicide Branch, Registration Division (7505P)

Date:

2-22-07

EPA Form 8570-6

You will submit one copy of your final printed labeling before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). A stamped copy of labeling is enclosed for your records. If you have any questions please contact Erik Kraft at 703-308-9358.

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IR5878 0.5 GR

[ABN: STRADA™ GR]

For use as a herbicide to be applied as direct application (without dilution in water) to control weeds in permanently flooded rice only.

**ACTIVE INGREDIENT:**

Orthosulfamuron ..... 0.50%

**OTHER INGREDIENTS** ..... 99.50%

**TOTAL** ..... 100.0%

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

2-22-07

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

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

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<b>FIRST AID</b>	
<b>If swallowed:</b>	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.
<b>If on skin or clothing:</b>	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.
<b>If inhaled:</b>	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.
<b>If in eyes:</b>	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.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>For Chemical Emergency Spill Leak Fire Exposure or Accident Call CHEMTREC Day or Night Domestic North America 800-424-9300 International 703-527-3883 (collect calls accepted)</b>	

[See (back)(side) panel for precautionary statements]

EPA Registration Number 80289-



EPA Establishment Number \_\_\_\_\_

Net Contents: \_\_\_\_\_

Manufactured by Isagro SpA for:  
Isagro USA, Inc  
430 Davis Drive, Suite 240  
Morrisville, NC 27560

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## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

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

**Personal Protective Equipment:** Applicators and other handlers must wear the following:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material
- Protective eyewear

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.

**User Safety Recommendations:** Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash skin thoroughly and put on clean clothing.

**Engineering Controls:** 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.

## ENVIRONMENTAL HAZARDS

With the exception of treating rice fields as specified on this label, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate arable land and/or water when disposing of equipment wash water or 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 ingredient in IR5878 0.5 GR.

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## DIRECTIONS FOR USE

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

Read the entire label. Use strictly in accordance with Precautionary Statements and Directions, and with applicable State and Federal regulations.

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

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling, and 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. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical resistant gloves (made of any waterproof material), protective eyewear, and shoes plus socks.

### GENERAL INFORMATION

IR5878 0.5 GR is a systemic herbicide formulated as a granule suitable for selective post emergence weed control. When applied according to label directions it is effective in the control of several annual and perennial broadleaf weeds and sedges.

To achieve the best control, it is recommended that IR5878 0.5 GR be applied to young emerging and actively growing weeds, between 1-2 leaves. IR5878 0.5 GR is applied via direct dry application by ground or air equipment to permanent flooded rice.

The efficacy may depend on the following parameters:

- Weed size at application
- Growing and environmental conditions (relative humidity and temperature) at and following treatment
- Soil pH, texture and organic matter content
- Water management

IR5878 0.5 GR is a member of the sulfonylurea herbicides.

IR5878 0.5 GR inhibits the plant enzyme acetolactate synthase, which is also known as acetohydroxy acid synthase (ALS/AHAS). Inhibition of this enzyme blocks branched-chain amino acid biosynthesis of valine, leucine and isoleucine involved in plant growth process leading to the death of the plant.

IR5878 0.5 GR is particularly efficient by foliar application, less important to the efficacy is the root uptake.

The product is translocated by xylem and phloem. Soon after IR5878 0.5 GR is applied, growth of susceptible weeds are 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.

Sometimes treated plants stay green but are stunted and not competitive with the crop. Do not apply more than one application of IR5878 0.5 GR per year.

#### **Additional Use Instructions and Precautions**

- Do not apply after ½ inch internode elongation
- Do not enter treated fields until 12 hours after application
- Poor weed control may result from application of IR5878 0.5 GR 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 lands other than rice fields
- Do not apply IR5878 0.5 GR directly to crops other than rice
- Application of IR5878 0.5 GR 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 make more than 1 application or apply more than 13.3 pounds of IR5878 0.5 GR per acre (equivalent to 0.067 lb ai/a) during the growing season in both the first and ratoon crops combined.
- Chemigation or applications through any type of irrigation system is not allowed

#### **Rotational Crop Information**

Use the time intervals listed below to determine the minimum required time interval between last IR5878 0.5 GR application and new crop planting.

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Rotational Crop Guideline	
Crop	Time Interval in Months Before Planting
Sugarcane	1
Corn (all)	3
Small Grains	3
Cotton	6
Soybean	6
All Other Crops	12

**IR5878 0.5 GR Spectrum**

Weeds Controlled		Rate of Application
Common name	Scientific name	
Ammannia spp. *	<i>Ammannia spp.</i> *	IR5878 0.5 GR 13.3 Pounds/Acre
Arrowhead *	<i>Sagittaria spp.</i> *	
Bulrush, Ricefield *	<i>Schoenoplectus mucronatus</i> *	
Dayflower, Spreading	<i>Commelina diffusa</i>	
Eclipta	<i>Eclipta prostrata</i>	
Falsepimpernel spp.	<i>Lindernia spp.</i>	
Flatsedge, Rice	<i>Cyperus iria</i>	
Gooseweed	<i>Sphenoclea zeylanica</i>	
Jointvetch spp.	<i>Aeschynomene spp.</i>	
Monochoria	<i>Monochoria vaginalis</i>	
Morningglory spp.	<i>Ipomoea spp.</i>	
Redstem *	<i>Ammannia auriculata</i> *	
Sesbania, Hemp	<i>Sesbania exaltata</i>	
Sida, Prickly	<i>Sida spinosa</i>	
Smallflower umbrella sedge *	<i>Cyperus difformis</i> *	
Smartweed spp.	<i>Polygonum spp.</i>	
Waterhyssop spp.	<i>Bacopa spp.</i>	
Waterplantain spp. (seedling) *	<i>Alisma spp.</i> *	
Yellow nutsedge **	<i>Cyperus esculentus</i> **	
Weeds Partially Controlled or Suppressed ***		
Alligatorweed	<i>Alternanthera philoxeroides</i>	
Ducksalad *	<i>Heteranthera limosa</i> *	
Texas or Mexicanweed	<i>Caperonia spp.</i>	
watergrass, early*	<i>Echinochloa oryzoides</i>	
watergrass, late*	<i>Echinochloa phyllopogon</i>	

\* STRADA 0.5 GR 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

Note: Weeds with gradual and late emergence (like Redstem) may escape an early herbicide application.

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## APPLICATION INFORMATION

### Use rate

IR5878 0.5 GR: 13.3 pounds per acre per year  
Do not apply more than one application per year

### IR5878 0.5 GR Dry Application

IR5878 0.5 GR is applied as a dry application (without dilution in water)

Precautions for this kind of application:

- Loading, application and equipment calibration instructions provided by the equipment manufacturer have to be followed
- Do not apply IR5878 0.5 GR dry (direct) by air to dry rice fields
- Do not mix IR5878 0.5 GR with any liquid carrier (like water or oil), any surfactant or crop oil
- Some crops are sensitive to IR5878 0.5 GR. Therefore avoid all direct and indirect contact with nontarget crops (or fields intended to be planted with sensitive crops)

### IR5878 0.5 GR Sequential Application

IR5878 0.5 GR fits well with the weed management programs normally adopted. Sequential application with commonly used herbicides registered for rice are suggested to complete the weed spectrum, especially versus grass weeds.

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 sequentially with this product.

### Aerial Application Recommendations

Application equipment used to deliver IR5878 0.5 GR should be calibrated to accurately and uniformly distribute IR5878 0.5 GR to the target area. Equipment should be monitored during application to ensure the appropriate rate and coverage are maintained. Overlaps that result in a higher than labeled rate should be avoided. IR5878 0.5 GR application should be avoided in wind speeds exceeding 10 mph.

### Application Timing

IR5878 0.5 GR application timing should be based on the appropriate rice growth stage and is also dependent on the species of weeds present and their growth stage. The recommended application timing for continuous flooded rice production is the 0.5 to 2 leaf stage of rice. This



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typically corresponds to the 1 to 2 leaf stage of weeds. To achieve the best weed control, it is recommended that IR5878 0.5 GR be applied to young, emerging and actively growing weeds. It is important to scout fields regularly to ensure weeds do not become too large before the herbicide application is made.

IR5878 0.5 GR can only be applied to permanently flooded rice.

Due to the selectivity for use on rice, IR5878 0.5 GR can be applied at very early stages of the crop. Occasionally, in the presence of very high temperatures, transient symptoms of chlorosis and vigor reduction may appear on rice, but the crop recovers within a few days without any adverse effect on yield.

### **Water Management**

#### **Prior to application:**

Before IR5878 0.5 GR application, water depth should be adjusted to a uniform 4 to 5 inch depth. If fluctuations in water depth occur or are expected due to rainfall or other conditions it is recommended that the water depth be stabilized at 4 to 5 inches before IR5878 0.5 GR applications are made.

#### **Seven days immediately following application:**

For optimum weed control, maintain a static flood for 7 days after application. If water depth drops below 3 inches, water may be slowly added until a 4 to 5 inch flood is reestablished. If the flood is lost following application, reflood the field to a 4 to 5 inch depth immediately. Not maintaining an adequate flood after application may result in poor weed control and emergence of additional weeds.

#### **Seven to fourteen days after application:**

It is advisable to maintain the flood out to 14 days after application and the water depth may be increased as needed to follow the rice growth. A permanent flood must be maintained season-long to prevent subsequent weed infestations due to emergence of new weeds.

### **Resistance Management**

The mode of action (MOA) of IR5878 0.5 GR is via the inhibition of the acetolactate synthase (ALS) inhibiting enzyme. The repeated use of herbicides with the same mode of action may result in the emergence of weed species biotypes that are resistant to that mode of action or family of herbicides. Resistance may develop in a number of ways such as altered target site sensitivity, enhanced metabolism, or altered plant characteristics that affect the absorption and translocation of the herbicide to the site of action.

IR5878 0.5 GR and other pesticides should be incorporated into an Integrated Pest Management (IPM) program that can include the use of cultural, biological, and other chemical practices to

prevent economical pest damage. Effective IPM practices include the use of weed free seed, proper scouting and identification of weeds within each field or paddy, optimum water management (adequate soil moisture at the time of application and maintaining the permanent flood), pesticide treatment at the appropriate target stage, crop rotation, and mechanical weed control when appropriate. This list is not inclusive and should be used in conjunction with other practices to further prevent resistance development.

To delay or avoid resistance, any or all of the following practices are recommended:

1. Always apply IR5878 0.5 GR at 13.3 pounds formulated product per acre
2. Avoid following an ALS-inhibiting herbicide application with another herbicide application of the same mode of action
3. The use of ALS herbicides in consecutive years should be done in conjunction with herbicides containing other modes of action
4. Monitor escaped weeds and control them before they can produce seed
5. Contact and follow local extension and/or consultant recommendations relative to resistance management
6. Do not apply STRADA 50 WG to the same field in the same year with an application of IR5878 0.5 GR product

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed through storage and disposal.

**Pesticide Storage:** Store under well-vented, cool and dry storage conditions. Do not store under moist conditions.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Empty the package completely into application equipment. Then dispose of the empty package according to state and local authority regulations in a sanitary landfill or by burning. If burned stay out of smoke.

**LIMITATION OF WARRANTY AND LIABILITY**

Read the entire label before using this product, including this Limitation of Warranty and Liability.

If the terms are not acceptable, return the product at once unopened for a refund of the purchase price.

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Directions for Use, subject to the inherent risks described below, when used in accordance with the Directions for Use under normal conditions.

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TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ISAGRO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Buyers and Users of this product must be aware that there are inherent unintended risks associated to the use of this product, independent from the control of Isagro. These risks include, but are not limited to, weather conditions, soil factors, moisture conditions, diseases, irrigation practices, condition of the crop at the time of application, materials which are present in the tank mix with this product or prior to the application of it, cultural practices or the manner of use or application, all risks which are impossible to eliminate. The Buyers and Users should be aware that these factors may cause: ineffectiveness of the product, reduction of harvested yield of the crop (entirely or partially), crop injury or injury to non-target crops or plants or to rotational crops caused by carryover in the soil, resistance of the target weeds to this product. Therefore additional care, treatment and expense are required to take the crop to harvest.

If the Buyer does not agree with the acceptance of these risks, then THE PRODUCT SHOULD NOT BE APPLIED. To the extent consistent with applicable law, by applying this product the Buyer acknowledges and accepts these inherent unintended risks and AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

To the extent consistent with applicable law, in no event shall ISAGRO or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product (including claims based in contract, negligence, strict liability, other tort or otherwise). To the extent consistent with applicable law, the exclusive remedy of the User or Buyer and the exclusive Liability of Isagro or Seller shall be the return of the purchase price of the product, or at the election of Isagro or Seller, the replacement of the product.

To the extent consistent with applicable law, this Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

Isagro or its Seller must have prompt notice of any claim so that an immediate inspection of Buyer's or User's can be made. To the extent consistent with applicable law, if Buyer and User do not notify Isagro or Seller of any claims, in proper time, it shall be barred from obtaining any remedy.

To the extent consistent with applicable law, Buyers and Users are deemed to have accepted the terms of this Limitation of Warranty and Liability, which may not be modified by any verbal or written agreement.

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