

MATERIAL SAFETY DATA SHEET

**Oryzalin 4 A.S.**

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**1. IDENTIFICATION**

Product name: **Oryzalin 4 A.S.**  
 Chemical name of active ingredient(s): Oryzalin: 3,5-dinitro-N4, N4-dipropylsulfanilamide  
 Manufacturer/Registrant: Makhteshim Agan of North America, Inc.  
 4515 Falls of Neuse Road, Suite 300  
 Raleigh, NC 27609  
 Phone: 919-256-9300  
 For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-800-535-5053  
 For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Oryzalin	19044-88-3	41	NE	NE	NA	NA

NE=not established  
 NA=not available

**3. HAZARDS IDENTIFICATIONS**

**PHYSICAL PROPERTIES**

**Appearance:** Bright orange opaque liquid  
**Odor:** Slight aromatic

**EMERGENCY OVERVIEW:** CAUTION. Hazards to human and domestic animals.

**PRIMARY ROUTES OF EXPOSURE:** Skin and eyes.

**SYMPTOMS OF ACUTE EXPOSURE:** May cause skin irritation and transient eye irritation.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Nitrogen oxides and other toxic gases may be formed if product is involved in a fire.

**4. FIRST AID MEASURES**

FIRST AID	
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<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 soap and water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor immediately for treatment advice.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-877-250-9291 for emergency medical treatment information.	
<b>Note to physician:</b> No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.	

## 5. FIRE FIGHTING MEASURES

**FLASH POINT:** No ignition up to 200° F (93.3° C) (SCC)

**FLAMMABLE LIMITS:**

LFL/UFL: Not applicable

**EXTINGUISHING MEDIA:** This is a water-based product and will not burn.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Nitrogen oxides and other toxic gases may be formed if product is involved in a fire.

**SPECIAL FIRE-FIGHTING PROCEDURES:** If product is involved in a fire, wear positive-pressure, self-contained breathing apparatus and full protective clothing.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** If the water in the product has evaporated, the explosion potential of oryzalin as airborne dust is rated as severe. The minimum ignition temperature for a dust cloud is 714°F (379°C).

## 6. ACCIDENTAL RELEASE MEASURES

**ACTION TO TAKE FOR SPILLS/LEAKS:** Use absorbent material to contain and clean up small spills. Scoop up and dispose as waste in approved disposal facility. Prevent runoff. Dispose of in accordance with state and federal regulations.

## 7. HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN HANDLING:** Do not contaminate water, food or feed by handling or storage. Keep out of reach of children. Avoid contact with skin or eyes. Wash thoroughly with soap and water after handling. Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.

**PRECAUTIONS TO BE TAKEN IN STORAGE:** Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

**STORAGE TEMPERATURE (MIN/MAX):** Normal ambient temperatures.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

**EYE PROTECTION:** None recommended.

**SKIN PROTECTION:** Wear long pants, long-sleeved shirt, and shoes plus socks. Mixers and loaders must wear a chemical-resistant apron in addition to other PPE.

**HAND PROTECTION:** Use chemical-resistant gloves.

**ADDITIONAL PROTECTIVE MEASURES:** Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from laundry.

### USER SAFETY RECOMMENDATIONS:

Users should:

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

**EXPOSURE GUIDELINES:** Refer to Section 2.

**ENGINEERING CONTROLS:** Refer to product label.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL PROPERTIES

Appearance: Bright orange opaque liquid

Odor: Slight aromatic

**FLASH POINT:** No ignition up to 200° F (93.3° C) SCC

**pH:** Not established.

**BOILING POINT:** 212° F (100° C)

**MELTING POINT:** Not applicable.

**SOLUBILITY IN H<sub>2</sub>O:** Miscible.

**SPECIFIC GRAVITY:** 1.138 - 1.239 @ 25° C

**VAPOR PRESSURE:** 23 mmHg @ 25° C

## 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under normal use and storage conditions. If water in the mixture evaporates, however, the resultant mixture should be handled with care.

**CONDITIONS TO AVOID:** None known.

**MATERIALS TO AVOID:** None known.

**HAZARDOUS POLYMERIZATION:** Not applicable.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Nitrogen oxides and other toxic gases may be formed if product is involved in a fire.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY/IRRITATION STUDIES

Acute Oral LD50 (Rat):	>5,000 mg/kg
Acute Dermal LD50 (Rabbit):	No data available.
Acute Inhalation LC50 (Rat):	No data available.
Eye Irritation:	Slightly irritating.
Dermal Irritation:	Slightly irritating.
Dermal Sensitization:	No data available.

## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Cover or incorporate spills.

## 13. DISPOSAL CONSIDERATIONS

**END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.**

**PRODUCT DISPOSAL:** Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product that cannot be used according to the label instructions should be disposed at a waste disposal facility approved for waste disposal, or in accordance with all applicable Federal, state, or local regulations.

**CONTAINER DISPOSAL:** Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

## 14. TRANSPORT INFORMATION

### DOT CLASSIFICATION:

Not regulated

### INTERNATIONAL TRANSPORTATION

**IMO (vessel):** Not regulated

**IATA (air):** Not regulated

## 15. REGULATORY INFORMATION

### SARA TITLE III CLASSIFICATION:

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Section 302: Not applicable.  
Section 311/312: Acute health hazard (immediate)  
Delayed health hazard (chronic)  
Section 313: Oryzalin (41%) CAS#: 19044-88-3

**CA PROPOSITION 65:** Not applicable.

**CERCLA RQ:** Not applicable.

**RCRA CLASSIFICATION:** Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

**TSCA STATUS:** The ingredients of this product are listed on the TSCA inventory or are exempt.

**16. OTHER INFORMATION**

<b>NFPA HAZARD RATINGS</b>	0	Least
<b>Health:</b>	2	1 Slight
<b>Flammability:</b>	0	2 Moderate
<b>Reactivity:</b>	0	3 High
	4	Severe

**MSDS DATE:** 5-11-09. Supercedes version dated 2-1-06. Changes made to Section 7, 13 and 14.

The information herein is given in good faith, but no warrant, express or implied, is made. Consult Makhteshim Agan of North America, Inc. for further information.