MATERIAL SAFETY DATA SHEET

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EMERGENCY TELEPHONE NUMBERS:

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Product No.: 557005 Ronilan® EG fungicide

Date Prepared: 5/30/1997 Date Revised: 5/5/2004

SECTION I

Trade Name: Ronilan® EG fungicide

Chemical Name: 3-(3,5-Dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione

Synonyms: Vinclozolin (active ingredient); Formula: C(12) H(9) N O(3) CI(2)

> BAS 352 46 F (formulation) (active ingredient)

Chemical Family: Dichloroaniline Mol Wt: 286.1 (active ingredient)

SECTION II - INGREDIENTS

COMPONENT CAS NO. % PEL/TLV - SOURCE

Vinclozolin 50471-44-8 50 1.0 mg/m(3) BASF recommended

Inerts N/A 50 Not established

This formulation contains kaolin, Kaolin contains small amounts of crystalline silica. This formulation may contain more than 0.1%

crystalline silica.

SARA Title III Section 313: Listed

SECTION III - PHYSICAL DATA

BOILING/MELTING POINT@760mm Hg: N/D pH: N/D

VAPOR PRESSURE mmHg @ 20°C: N/D

SPECIFIC GRAVITY OR BULK DENSITY: 28. lb/ft(3)

SOLUBILITY IN WATER: Water Dispersible

APPEARANCE: **ODOR: Aromatic** Tan powder INTENSITY: Sliaht

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD): N/D **AUTOIGNITION TEMP: **See below**

FLAMMABILITY LIMITS IN AIR (% BY VOL): LOWER: N/D **UPPER: N/D**

NFPA 704 HAZARD CODES

HEALTH: 1 FLAMMABLE: 3* **INSTABILITY: 1*** OTHER:

NFPA 30 STORAGE CLASSIFICATION: Non-flammable solid

EXTINGUISHING Use water fog, CO(2), or dry chemical extinguishing media.

MEDIUM

SPECIAL Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

FIREFIGHTING

PROCEDURES

EXPLOSION

UNUSUAL FIRE May form an explosive dust/air mixture. Organic solids will burn at elevated temperatures. All products of incomplete combustion and/or decomposition have not been determined.

HAZARDS **Exotherm initiation temperature (Grewer oven): 214° C

SELECT ACRONYM KEY

N/A - Not available; N/D - Not determined; N/R - Not rated; N/E - Not established

SECTION V - HEALTH DATA

TOXICOLOGICAL TEST DATA:

For Ronilan® EG:

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Rat, Oral LD50 > 5000 mg/kg

Rat, Dermal LD50 > 2000 mg/kg

Rat, Inhalation LC50 (4 hour) > 5.3 mg/L

Rabbit, Skin Irritation - Non-irritating

Rabbit, Eye Irritation - Non-irritating

Guinea pig, Dermal Sensitization - Sensitizing

OSHA, NTP, or IARC Carcinogen: Lifetime feeding studies of vinclozolin (ai) to rodents have shown an increased

incidence of tumors at excessive dose levels.

EFFECTS OF OVEREXPOSURE:

See Product Label and Directions For Use for additional precautionary statements.

Hazards to Humans and Domestic Animals

Caution. Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye irritation. Do not get on skin, in eyes or on clothing.

Avoid breathing vapor or spray mist. Prolonged exposure or frequently repeated skin contact may cause allergic reactions in some individuals.

For the active ingredient, vinclozolin: Tests indicate embryotoxicity, reproductive toxicity and cataract formation in animal studies.

Also, endocrine changes have been reported in animal developmental, subchronic and chronic toxicity studies.

For a minor component of the formulation:

Overexposure to crystalline silica results in silicosis, a lung disease characterized by coughing, difficult breathing, wheezing, scarring of the lungs, and repeated, non-specific chest illnesses. The International Academy for Research on Cancer (IARC) has classified crystalline silica in Group 1 (those agents with evidence of carcinogenicity to humans).

Existing medical conditions aggravated by exposure to this material: No information found for this mixture.

FIRST AID PROCEDURES

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 inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration,

preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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

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 by a poison control center or doctor. Do not give anything to

an unconscious person.

SECTION VI - REACTIVITY DATA

STABILITY: Stable

If swallowed:

CONDITIONS TO AVOID: Moisture

CHEMICAL INCOMPATIBILITY: Unknown, see label for recommended mixtures.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may generate HCl and NOx.

HAZARDOUS POLYMERIZATION: Does not occur.

CONDITIONS TO AVOID: N/A

CORROSIVE TO METAL: No OXIDIZER: No

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SECTION VII - PERSONAL PROTECTION

PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions For Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory Protection:

Supplied air respirators should be worn if large quantities of dust are generated or prolonged exposure possible.

Eye Protection:

Chemical goggles when respirator does not provide eye protection.

Protective Clothing:

Gloves, long sleeved shirt, and slacks.

Ventilation:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

SECTION VIII - ENVIRONMENTAL DATA

ENVIRONMENTAL TOXICITY DATA

Ronilan® EG is toxic to fish. Care should be taken not to contaminate water.

Rainbow Trout, static 96 hr LC50 > 100 mg/L

Daphnia magna, static 48 hr EC50 - 158 mg/L

Acute Algal Toxicity, 72 hr EC/LC50 - 19.3 mg/L

This product is toxic to fish.

Do not apply directly to water, or to areas where 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.

SARA 311/312 REPORTING

FIRE:No PRESSURE:No REACTIVITY:No ACUTE:No CHRONIC:Yes TPQ(lbs): 10,000

SPILL AND LEAK PROCEDURES:

Spill material should be recovered for use; otherwise, spills should be contained and placed in suitable containers for disposal. This material is not regulated under RCRA or CERCLA ("Superfund").

HAZARDOUS SUBSTANCE SUPERFUND: No RQ(lbs): None

WASTE DISPOSAL METHOD:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

HAZARDOUS WASTE 40CFR261: No HAZARDOUS WASTE NUMBER:None

CONTAINER DISPOSAL:

The outer box and inner overwrap packaging of the water -soluble bag should be incinerated or disposed of in a sanitary landfill, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not re-use the empty packaging.

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SECTION IX - SHIPPING DATA - PACKAGE AND BULK

D.O.T. PROPER SHIPPING NAME (49CFR172.101-102): HAZARDOUS SUBSTANCE

None (49CFR CERCLA LIST):

No

RQ(lbs): None

D.O.T. HAZARD CLASSIFICATION (CFR 172.101-102):

PRIMARY SECONDARY

None None

D.O.T. LABELS REQUIRED (49CFR172.101-102): D.O.T. PLACARDS POISON CONSTITUENT

REQUIRED (CFR172.504): (49CFR172.203(K)):

None None None

BILL OF LADING DESCRIPTION

Fungicide, Agricultural, NOIBN

CC NO.: 432 UN/NA CODE: None

SECTION X - ADDITIONAL INFORMATION

Ronilan® EG fungicide

Not for use in Florida

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

WARNING: This product contains a chemical known to the State of California to cause cancer.

Made in Germany

KEEP OUT OF REACH OF CHILDREN

CAUTION

Complete Label and Directions For Use are attached to the product.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

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