06/13/00

MS 1390 Southern Agricultural Insecticides, Inc.

MATERIAL SAFETY P.O. Box 218

DATA SHEET Palmetto, Fl. 34220 Emergency phone# see section IV Office phone: 941 722 3285

SA-50^R GRASS KILLER Contains Vantage^R Herbicide Section I

Trade name: SA-50^R Grass Killer contains Vantage^R Herbicide,

EPA Reg. No. 7969-88-829

Chemical Name: See section II – Ingredients

Synonyms: Sethoxydim, NP-55 (active ingredient) Formula: C(17)H(29)O(3)NS

BASF 562 26 H (formulation)

Chemical Family: Cyclohexanone Mol. Wt.: 327.5 (active ingredient)

Section II Active Ingredients

COMPONANT CAS No. % PEL/TLV – Source Sethoxydim (active ingredient) 74051-80-2 13* Not established

Inerts, including N/A 87

Naphthalene 91-20-3 1.3 10 ppm ACGIH, OSHA

15 ppm STEL ACGIH, OSHA

Chemical Name for Sethoxydim: 2-(1-(ethoxyimino)butyl)-5-(2-(ethylthio)propyl}-3-hydroxy-2-cyclohexen-1-one *Equivalent to 1.0 pound Sethoxydim per gallon

N/A=Not applicable; N/D=Not determined

SARA Title III section 313: Listed

SECTION III PHYSICAL DATA

Boiling Point/Melting Point @760 mm Hg **N/D** pH: 3.21-3.5 (5% Aq.)

Vapor pressure mm Hg @ 20°C 2

Specific Gravity: 0.906 g/ml Bulk Density: 7.56 lb/gal

Solubility in Water: Forms emulsion

Appearance: Clear Liquid Odor: Mild aromatic Intensity: Moderate

SECTION IV FIRE AND EXPLOSION

Flash Point (test method): 188°F TCC

Flammability Limits in air (% by Vol.):

Auto Ignition Temp: 397°C

Lower: Error! Bookmark not defined.

Upper: 5.3@103°C NFPA 704 Hazard Codes

Health: 2 Flammable: 2 Reactivity: 1 NFPA 30 Storage Classification: Class IIIA

Extinguishing medium: Use water fog, foam, Co₂, or dry chemical media Special Firefighting Procedures: Firefighters should be equipped with self-

contained breathing apparatus and turnout gear.
Unusual Fire and Explosion Hazards: NONE

EMERGANCY PHONE NUMBERS: Night, Days, and, Holidays BASF: 1 800 832 HELP CHEMTREC: 1 800 424 9300

SECTION V HEALTH DATA

Toxicological Data for formulated product:

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Rat, Oral LD₅₀> 2200 mg/Kg Rat, Dermal, LD₅₀>2000 mg/Kg

Rat, Inhalation, LC₅₀, (4 hrs) >7.6 mg/l

Rabbit, Eye irritation: - Slightly irritating Rabbit, skin irritation: - Slightly irritating Section v cont'd Page 2 of 4 SA-50 Grass killer Contains Vantage Herbicide Guinea pig, Dermal sensitizer – Non-Sensitizing

Effects of Overexposure: See product label and directions for use for additional precautionary statements.

Hazards to Humans and domestic animals.

CAUTION: Causes moderate eye injury. Harmful if swallowed or absorbed through the skin.

Avoid contact with skin, eyes, or clothing.

Inhalation of mists/vapors results in irritation to nose, throat, and lungs.

For a component of this formulation: Ingestion of naphthalene results in cramps, nausea, vomiting, and diarrhea, listlessness, bladder irritation, and brownish urine. Inhalation of naphthalene may cause headache, confusion, and excitement. Chronic overexposure to naphthalene may result in liver/kidney disorders, hemolysis, anemia, fever, hemoglobuinuria, and jaundice may also occur. Those with prior blood diseases may be more severely affected.

Acute overexposure to solvent naphtha vapors may cause central nervous system effects, including headaches, dizziness, drowsiness, and confusion. Ingestion causes nausea, vomiting, blurred vision and CNS disorder. Aspiration of the liquid into lungs may result in chemical pneumonitis, which may be fatal. Prolonged or repeated skin contact may cause defatting and dermatitis.

The following special studies have been preformed for the active ingredient

Teratogencity (rat and rabbit) – negative

Reproduction studies (2 generations rat) – negative

Skin sensitization (guinea pig) – negative

First Aid Procedures

Statement of practical treatment

If in eyes: Flush with plenty of water. Call a physician if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention.

If swallowed: Call a doctor or get medical attention. Do not induce vomiting. Drink promptly, a large quantity of milk, egg whites, gelatin, or if these are not available, drink large quantities of water. Avoid alcohol.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

SECTION VI REACTIVITY DATA

Stability: Stable

Conditions to avoid: Heat, air, and moisture. **Chemical Incompatibility:** Oxidizing agents.

Hazardous Decomposition Products: SO₂, NO_X, during combustion

Hazardous Polymerization: Does not occur.

Conditions to avoid: N/A

Corrosive to metal: No Oxidizer: No SECTION VII PERSONAL PROTECTION

Pesticide applicators and workers must refer to the product label and directions for use attached to the product for agricultural use requirements in accordance with EPA Worker Protection Standard 40CFR part 170'

SECTION VII cont'd Page 3 of 4 SA-50 Grass killer Contains Vantage Herbicide **Recommendations for manufacturing, commercial blending, and packaging workers:**

Respiratory Protection: Supplied air respirators should be worn if large quantities of vapor are generated or prolonged exposure is possible.

Eye Protection: Chemical goggles when respirator does not provide eye protection.

Protective Clothing: Gloves and protective clothing as necessary to minimize skin contact.

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

SECTION VIII ENVIRONMENTAL DATA ENVIROMENTAL TOXICITY DATA (Active ingredient)

Mallard Duck, Acute LD50>2510 mg/kg

Mallard Duck, Dietary LC50>5620 ppm

Bobwhite Quail, Dietary LC50>5620 ppm

Bluegill Sunfish, (96 hour) LC50=265 mg/L

Rainbow Trout, (96 hour) LC50=170 mg

Daphnia magna, (48 hour) LC50=78.1 mg/L

Environmental toxicity data is not available for formulated product.

Active ingredient is not toxic to Honeybees when applied topically up to 10 ug/bee or when sprayed on at a concentration simulating exposure to the maximum recommended use rate 2000 ppm.

Sara 311/312 Reporting

Fire:yes, Pressure:No, Reactivity: No, Acute: yes, Chronic: yes, TPQ(lbs.) 10,000 **Spill and leak Procedures:** Recover materials for use according to label whenever possible. Wear gloves, goggles, and boots when cleaning up liquid spill. Cover contaminated area with absorbent material until dry. Spills, which can not be recovered, should be contained, solidified, and placed in suitable containers for disposal in a licensed facility.

Hazardous substance superfund: yes Rq(lbs.) 100 (naphthalene)

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

Hazardous Waste 40CFR261: no Hazardous waste no.: N/A Container Disposal: Triple rinse (or equivalent) Then offer for recycling or reconditioning, or puncture and dispose in a sanitary landfill, or by incineration, or if allowed by state and local authorities by burning. If burned stay out of smoke.

SECTION IX SHIPPING DATA

For non-bulk packages (less than 120 gal containers)

DOT Proper Shipping Name: none. DOT Hazard Classification: none. DOT label, marking, or placard: none.

Bill of lading Description: Herbicides NMFC 50320

Date prepared 2/9/2000 Ref: BASF MSDS Product # 548510 7/1/99

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DISCLAIMER

Important: While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information, may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale. Further you expressly understand and agree that the descriptions, designs, data, and information furnished by BASF and/or Southern Agricultural Insecticides, Inc. hereunder are given gratis and BASF and/or Southern Agricultural Insecticides Inc. assume no obligation or liability for the descriptions, designs, data and information given or the results obtained, all such being given and accepted at your risk.