

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be consulted
for specific requirements.

U.S Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (As Used on Label and List)

Bonide Crabgrass & Broadleaf Weed Killer

ID No. 22177094

Date: October 12,1998

Section I

| | |
|-----------------------|----------------|
| Bonide Products, Inc. | (800) 424-9300 |
| 2 Wurz Ave | (315) 736-8231 |
| Yorkville, NY 13495 | |

Section II - Hazardous Ingredients/Identity

| Hazardous Components (Specific Chemical Identity: Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits | % (Optional) |
|---|----------|-----------|--------------|--------------|
| 2,4-Dichlorophenoxyacetic acid (2,4-D) CAS No. 94-75-7 | 10 mg/m3 | 10mg/m3 | | 4.84 |
| 2-(2-Methyl-4-chlorophenoxy) propionic acid (Mecoprop) CAS 93-65-2 | NI | NI | | 4.84 |
| 3, 6-Dichloro-o-anisic acid (Dicamba) CAS 1918-00-9 | NI | NI | | 1.21 |
| Dimethylamine (DMA) CAS 124-40-3 | 10 ppm | 5 ppm | | 3.35 |
| Monosodium acid Methanearsonic acid (MSMA) CAS 2163-80-6 | NI | NI | | 18.00 |

Section III - Physical/Chemical Ingredients

| | |
|--|--|
| BOILING POINT: 212°F | SPECIFIC GRAVITY (H2O=1): 1.20000 |
| VAPOR PRESSURE (mm Hg.): <17 @ 20°C | MELTING POINT: NI |
| VAPOR DENSITY (AIR=1): >1 | EVAPORATION RATE (Butyl Acetate=1): <1 |
| SOLUBILITY IN WATER: Infinite | pH: 7.0-8.5 |
| PERCENT VOLATILE BY VOL.: 65 | FREEZING POINT: <35 F |
| DENSITY AT 20°C: 10.0 lb/gal | VISCOSITY: 1700-2000 cp |
| APPEARANCE AND ODOR: Solid in liquid suspension; amine odor. | |

Section IV - Fire and Explosion Data

FLASHPOINT: None to boiling FLAMMABLE LIMITS: LEL: NI UEL: NI
EXTINGUISHING MEDIA: Foam, CO2, dry chemical, water.
SPECIAL FIRE FIGHTING PROCEDURES: Wear positive-pressure breathing apparatus and full protective clothing.
UNUSUAL FIRE FIGHTING PROCEDURES: This product does not ignite readily, but may burn at a very high temperature. The fire may product irritating or poisonous gases. Run-off from fire control area or dilution water may cause pollution. If surface water is contaminated, contact local authorities.

Section V - Reactivity Data

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
INCOMPATIBILITY (MATERIALS TO AVOID): Avoid contact with acids and metals such as zinc, aluminum, copper and tin.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: May produce gases such as HCl, organo chlorides, nitrogen oxides and carbon monoxide when burning. MSMA, in the presence of many metals, can react with nascent hydrogen to form arsine gas.

Section VI - Health Hazard Information

ROUTES OF ENTRY: Skin contact, inhalation, ingestion.
HEALTH HAZARDS (ACUTE AND CHRONIC):
EYES: Contact may cause irritation and burning.
SKIN: Moderately irritating to the skin; may be absorbed through the skin. Acute dermal LD50: >2000 mg/kg (rabbit)
INHALATION: Moderately irritating to the mucous membranes. Inhalation of sprays may cause burning sensations in the respiratory tract, resulting in coughing. LC50: >3.3 mg/liter (4H)

Section VI - Health Hazard Information (cont'd)

INGESTION: May cause vomiting, with pain in the chest and abdomen, and diarrhea. Oral LD50: 6700 mg/kg (rats)

CHRONIC EFFECTS: Repeated or prolonged overexposure may affect the liver, kidneys, blood, gastrointestinal and muscular systems. Skin sensitization may occur after repeated exposure.

SIGNS AND SYMPTOMS OF EXPOSURE: Inhalation may cause burning in the chest, with coughing. Prolonged inhalation sometimes causes dizziness. Ingestion usually leads to vomiting. Pain in the chest and abdomen, and diarrhea may follow. Headache, mental confusion, and bizarre behavior are early manifestations of severe poisoning, which may progress to unconsciousness.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Individuals with chronic skin disease or known sensitivity to chlorophenoxy compounds should either avoid using them or take strict precautions to avoid contact. (respirator, gloves, etc.)

EMERGENCY AND FIRST AID PROCEDURES: EYES: Flush contaminating chemicals from eyes with large amounts of clean water for 10-15 minutes. If irritation persists, seek medical attention.

SKIN: Remove contaminated clothing. Bathe and shampoo with soap and water to remove chemicals from skin and hair. Obtain medical treatment if irritation persists.

INHALATION: Remove victim to fresh air. Apply artificial respiration if needed. If any symptoms of illness occur during or following inhalation of sprays, remove victim from contact with the material for at least 2-3 days, and use respiratory protection for future contact with this type of material.

INGESTION: If substantial amounts of this product have been swallowed, spontaneous emesis may occur. Contact a physician or Poison Control Center immediately for assistance.

Section VII - Precautions for Safe Handling/Use

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Do not touch spilled material. Wear chemical resistant gloves, protective clothing and safety glasses. Contain and absorb spilled material on Dri-Rite, sand or other inert absorbent. Collect into drums; cover and label for disposal. Flush area with water if possible. For a large spill, use of a dust/mist respirator, NIOSH/MSHA approval number TC-21C or a chemical cartridge respirator, NIOSH/MSHA TC-23C is recommended.

WASTE DISPOSAL METHOD: Dispose of DOT drum, waste water and contaminated absorbent according to State, Local and Federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store this product in the original container in a locked storage area inaccessible to children or pets. Do not store near feed, seed or food; other herbicides, pesticides or fungicides. Keep from freezing. Do not use this product if spray may drift from the target area. Do not contaminate water supplies.

Section VIII - Control Measures

VENTILATION REQUIREMENTS: Good local ventilation is recommended; mechanical ventilation may be used if exposure limits may be exceeded.

PERSONAL PROTECTIVE EQUIPMENT: RESPIRATORY PROTECTION: If exposure limits may be exceeded, wear a NIOSH/MSHA approved respirator for dusts and mists (TC-21C) or an organic cartridge respirator (NIOSH/MSHA No. TC23-C).

PROTECTIVE CLOTHING: Wear long sleeves and pants; chemical resistant gloves and shoes with socks.

EYE PROTECTION: Safety glasses, goggles or face shield are recommended.

KEEP OUT OF REACH OF CHILDREN**ABBREVIATION KEY**

N/A: NOT AVAILABLE OR APPLICABLE

N/E: NOT ESTABLISHED

ND: Not Determined

TLV: THRESHOLD LIMIT VALUE

TWA: TIME WEIGHTED AVG./8 HOUR WORKDAY

STEL: SHORT TERM EXPOSURE LIMIT

D.O.T.: DEPARTMENT OF TRANSPORTATION

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.