

MATERIAL SAFETY DATA SHEET

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SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

- a. **Product Identifier:** SUBDUE[®] MAXX
Registration Number: 27055
Formulation Number: A-9619B
Chemical Class: Phenylamide fungicide
Synonym: None
Formulation Type: Emulsifiable Concentrate (EC)
- b. **Name of Supplier, Address and Emergency Telephone Number** - See above.
- c. **Name of Manufacturer, Address and Emergency Telephone Number** - See above.
- d. **Product Use:** SUBDUE MAXX is an emulsifiable concentrate for control of certain diseases in ornamental plants, conifers, non-bearing deciduous fruits, nuts, and golf course turf.
- e. **Date of MSDS Preparation:** 02-03-20
- f. **Name and Telephone Number of Party Responsible for MSDS Preparation:**
Dr. Ravi Ramachandran for Syngenta Crop Protection Canada, Inc.
For further information, please contact Claudia Thum at (519) 837-5338

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

- a. **Chemical Identity and CAS Registry No. of hazardous ingredients (WHMIS Controlled Products) present at 1.0%, or 0.1% as appropriate, by weight.**
Metalaxyl-M (isomer mixture) CAS number 70630-17-0 and 69516-34-3
- b. **Ingredients present which are on the WHMIS Ingredient Disclosure List at, or above, the minimum concentration specified on the List:** None
- c. **Ingredients with unknown toxicological properties:** None
- d. **Ingredients the supplier believes may be harmful:** None
- e. **PIN (Transport Canada - Product Identification Number) for the entire product:** Not applicable
- f. **Generic chemical identity and Registry Number for trade secret ingredients registered under the Hazardous Materials Information Review Commission:** None
- g. **Ingredient concentration in units of wt./wt., vol./vol. or wt./vol.** expressed as: i) actual concentration, or ii) a range as specified in the Controlled Product Regulations.
Metalaxyl-M 22.7% w/w
Chemical name: (R)-2-[2,6-dimethylphenyl]-methoxyacetyl amino]-propionic acid methyl ester
CGA-329351 CAS number 70630-17-0
N.B. Metalaxyl-M is the active isomer of metalaxyl.
Polyethylene glycol
Surfactant
- h. **Exposure limits for ingredients:** Not established

SECTION 3 HAZARDS IDENTIFICATION

Potential Health Effects:

- a. **Relevant routes of exposure:** Skin, lungs, eyes, mouth

- b. **Adverse health effects from exposure to product or ingredients of product:**
- i) length of exposure
 - ii) severity of effect
 - iii) target organ
 - iv) type of effect
 - v) signs and symptoms

May cause mild eye irritation. The target organ for metalaxyl-M is the liver.

vi) **medical conditions known to be aggravated:** None known

SECTION 4 FIRST AID MEASURES

IF POISONING IS SUSPECTED, or any symptoms are serious, **immediately contact the poison information centre**, doctor or nearest hospital. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms, and follow the advice given.

EYES: Immediately flush eyes repeatedly with large amounts of clean running water for 15 minutes. Hold eyelids apart to rinse the entire surface of eyes and lids. Do not apply any medicating agents except on the advice of a physician. Obtain medical attention or contact poison information centre.

SKIN: Remove contaminated clothing. Wash well with soap and water, including skin, hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Obtain medical attention if irritation persists. Decontaminate clothing prior to further use.

INHALATION: Move person from contaminated area to fresh air. Give artificial respiration if necessary.

INGESTION: If victim is fully conscious, immediately give 2-3 glasses of water to drink and induce vomiting only under the direction of a physician. Never give anything by mouth or attempt to induce vomiting in an unconscious or convulsing person.

NOTE TO PHYSICIAN: There is no specific antidote if this product is ingested.

If a large amount has been ingested, and emesis is inadequate, lavage stomach.

SECTION 5 FIRE FIGHTING MEASURES

1. **Flash point and method:** >93.3°C
2. **Upper and lower flammable (explosive) limits in air:** Not available
3. **Autoignition temperature:** Not available.
4. **Hazardous combustion products:** Oxides of carbon, nitrogen.
5. **Conditions under which flammability could occur:** None known
6. **Extinguishing media:** Dry chemical, foam or carbon dioxide. Fire-fighters should wear full protective clothing and self-contained breathing apparatus. Evacuate non-essential personnel from the area to prevent human exposure to fire, smoke, fumes, or products of combustion. Prevent use of contaminated buildings, area and equipment until decontaminated. Contain run-off.
7. **Sensitivity to explosion by mechanical impact:** Not available.
8. **Sensitivity to explosion by static discharge:** Not available.

SECTION 6 ACCIDENTAL RELEASE MEASURES

- a. **Procedures for dealing with release or spill:**
Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and a NIOSH-approved chemical cartridge respirator with organic vapor cartridges and a P-100 or P-95 pre-filter or use a self-contained breathing apparatus (SCBA). For small spills, cover with an absorbent material such as pet litter. Sweep up and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

SECTION 7 HANDLING AND STORAGE

- a. **Handling practices:** Avoid contact with eyes, skin or clothing, and wash immediately after exposure. Avoid inhalation of spray. Do not eat, drink, use tobacco, or apply cosmetics in areas where there is a potential for exposure to the material. Always wash thoroughly after handling. Remove contaminated clothing promptly, and wash it before wearing again. Wear personal protective equipment (see Section 8) when applying SUBDUE MAXX.
- b. **Appropriate storage practices/requirements:** Store SUBDUE MAXX in a well-ventilated, secure area set aside for pesticides. KEEP OUT OF REACH OF CHILDREN. Do not store food, beverages, or tobacco in the same area. Protect from heat.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- a. **Applicable control measures, including engineering controls:** Handle this material in a well-ventilated area. Avoid contact with skin, eyes and clothing, and avoid breathing spray.
- b. **Personal protective equipment for each exposure route:**
To avoid breathing vapours or mist, wear a NIOSH approved chemical cartridge respirator with organic vapour cartridges and a P-100 or P-95 pre-filter, or use a supplied-air respirator.
To avoid eye contact, wear safety glasses with side shields, or chemical goggles.
To avoid skin contact, wear rubber gloves and boots, long-sleeved shirt, long pants and a head covering.
To avoid ingestion, Do not eat, drink, smoke or apply cosmetics in areas where there is a potential for exposure to this material. Wash thoroughly after handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

- a. **Appearance:** Yellow honey-coloured liquid
- b. **Odour:** Sweet and waxy
- c. **Physical state:** Liquid
- d. **pH:** 7-9 (1% solution in water at 25° C)
- e. **Vapour pressure and reference temperature:** 3.30E-03 Pa @ 25°C (Metalaxyl-M)
- f. **Vapour density:** Not available
- g. **Boiling point:** Not available
- h. **Freezing/Melting point:** Not available
- i. **Density:** 1.10 g/cc
- ii. **Evaporation Rate:** Not available
- k. **Water/oil partition coefficient:** Not available
- l. **Odour threshold:** Not available
- m. **Viscosity:** 216 cps
- n. **Solubility in H₂O:** 26.0 g/L @ 25°C (Metalaxyl-M)

SECTION 10 STABILITY AND REACTIVITY

- a. **Chemical stability:** Stable
- b. **Conditions to avoid:** None known.
- c. **Incompatibility with other materials:**
- d. **Hazardous decomposition products:** Oxides of carbon, nitrogen
- e. **Hazardous polymerisation:** Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on product:

- a. **LD50 (species and route)**
Acute, oral LD50, 2,084 mg/kg body weight - slightly toxic (female rat); 6489 mg/kg body weight (male rat) and 3436mg/kg body weight (rat, overall).
Acute dermal LD50, rabbit >2020 mg/kg body weight - slightly toxic
- LC50 (species)**
Acute inhalation LC50, rat >2.8 mg/L air (4 hour) - slightly toxic
- b. **Irritation data**
Primary eye irritation, rabbit - mildly irritating
Primary skin irritation, rabbit - non-irritating
- c. **Results of studies on:**
- **Sensitization**
Dermal sensitization, guinea pig - not a dermal sensitizer
 - **Carcinogenicity**
Metalaxyl was found not to be carcinogenic in studies with rats and mice.
 - **Reproductive toxicity**
Metalaxyl is not developmentally toxic, and does not affect reproductive performance in rats.
 - **Teratogenicity**
Metalaxyl-M was not teratogenic in a study with rats.
 - **Mutagenicity**
Metalaxyl was not mutagenic in a battery of 9 different tests. Metalaxyl-M did not cause point mutations (Ames test) or chromosome aberrations (Chinese Hamster Ovary Cells Test).
 - **Chronic exposure:**
Long term studies with metalaxyl in rats, mice and dogs showed no significant toxic effects.
Metalaxyl produced liver effects at high dose levels in rats.
- d. **Toxicity of Other Components:**
- Surfactant: Exposure can result in eye and skin irritation.
 - Surfactant: Causes severe eye irritation. Prolonged or repeated skin contact may cause discomfort and local redness. Mist can irritate the respiratory tract, experienced as nasal discomfort and discharge with chest pain and coughing.
 - Active Ingredients:
 - Mefenoxam: Liver
 - Inert Ingredients:
 - Surfactant : Eyes and Skin
 - Surfactant : Eyes, Skin and Respiratory Tract

Other materials that show synergistic toxic effects together with the product: None known

SECTION 12 ECOLOGICAL INFORMATION

Metalaxyl-M is practically non-toxic to birds and honey bees. It is practically non-toxic to fish and aquatic invertebrates, and presents a minimal risk to aquatic plants. It is slightly toxic to oysters.

SECTION 13 DISPOSAL CONSIDERATIONS

- a. **Waste disposal information:**
Do not re-use jugs. Dispose of used containers, unwanted product and residues in accordance with local environmental regulations.

SECTION 14 TRANSPORT INFORMATION

- a. **Shipping information such as shipping classification:**
TRANSPORTATION OF DANGEROUS GOODS CLASSIFICATION - ROAD/RAIL:
Not regulated

SECTION 15 REGULATORY INFORMATION

- a. **WHMIS classification for product:** Exempt
b. **A statement that the MSDS has been prepared to meet WHMIS requirements, except for use of the 16 headings:** This MSDS has been prepared in accordance with WHMIS requirements, but the data are presented under 16 headings.

SECTION 16 OTHER INFORMATION

The information and recommendations contained herein are based on information believed to be correct. However, no guarantee or warranty of any kind, expressed or implied is made with respect to the information provided herein.

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