SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name          RAXIL® MD FUNGICIDE
MSDS Number           102000013084
Product code (UVP)    06539181
PCP Registration No.  27692
Product Use           Fungicide

Bayer CropScience Inc
#200, 160 Quarry Park Blvd, SE
Calgary, Alberta T2C 3G3
Canada

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-888-283-6847

SECTION 2. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview    Caution! Avoid contact with skin, eyes and clothing. Avoid inhalation of vapour or mist.

Physical State        liquid suspension
Odor                  weak characteristic
Appearance             red

Exposure routes        Skin contact, Eye contact, Inhalation, Ingestion

Immediate Effects
Eye                    May cause mild irritation to eyes. Avoid contact with eyes.

skin                   Irritating to skin. Avoid contact with skin and clothing.

Ingestion             Harmful if swallowed. Do not take internally.

Inhalation            May cause respiratory tract irritation. Avoid inhalation of vapour or mist.

Chronic or Delayed
Long-Term             This product or its components may have target organ effects. This product or its components may have long term (chronic) health effects.
Potential Environmental Effect  Toxic to fish, aquatic invertebrates and marine/estuarine organisms.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Average % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tebuconazole</td>
<td>107534-96-3</td>
<td>0.48</td>
</tr>
<tr>
<td>Metalaxyl</td>
<td>57837-19-1</td>
<td>0.64</td>
</tr>
<tr>
<td>1,2-Propanediol</td>
<td>57-55-6</td>
<td>20.00</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General  When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

Eye  Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.

Skin  Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

Ingestion  Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Inhalation  Move 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 physician or poison control center immediately.

Notes to physician  Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point  > 100 °C / 212 °F
Autoignition temperature  no data available
Lower Flammability Limit  no data available
Upper Flammability Limit  no data available

Fire and Explosion Hazards
In the event of fire the following may be released:
- Carbon monoxide (CO)
- Carbon dioxide (CO2)
- Nitrogen oxides (NOx)

Suitable extinguishing media
- Foam
- Carbon dioxide (CO2)
- Dry chemical
- Water spray

Fire Fighting Instructions
Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods for cleaning up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice
Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

SECTION 7. HANDLING AND STORAGE

Handling procedures
Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Storing Procedures
Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Protect from freezing.

Work/Hygienic Procedures
Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove
soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection
Follow all label instructions. Train employees in safe use of the product.
Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

Eye/Face Protection
Tightly fitting safety goggles

Hand protection
Chemical resistant nitrile rubber gloves

Body Protection
Wear long-sleeved shirt and long pants and shoes plus socks.

Respiratory protection
When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Exposure Limits

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>OES/BCS</th>
<th>TWA</th>
<th>TWAEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tebuconazole</td>
<td>107534-96-3</td>
<td>OES BCS*</td>
<td>0.2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>1,2-Propanediol</td>
<td>57-55-6</td>
<td>CAD ON OEL</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CAD ON OEL</td>
<td>TWAEV</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>red</td>
</tr>
<tr>
<td>Physical State</td>
<td>liquid suspension</td>
</tr>
<tr>
<td>Odor</td>
<td>weak characteristic</td>
</tr>
<tr>
<td>pH</td>
<td>6.5 - 8.5 (100 %)</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>no data available</td>
</tr>
<tr>
<td>Density</td>
<td>1.03 g/cm³ at 20 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
</tbody>
</table>
Boiling Point  
no data available

Melting / Freezing Point  
-10 °C / 14 °F

Water solubility  
dispersible

Minimum Ignition Energy  
no data available

Partition coefficient: n-octanol/water  
no data available

Viscosity  
4 - 20 mPa.s

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid  
Heat, flames and sparks.

Incompatibility  
Oxidizing agents

Hazardous Decomposition Products  
Thermal decomposition
Carbon dioxide (CO2)
Carbon monoxide
Nitrogen oxides (NOx)

Chemical Stability  
Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been performed on the formulated product. The non-acute information pertains to the technical-grade active ingredients, tebuconazole and metalaxyl.

Acute oral toxicity  
rat: LD50: > 5,050 mg/kg

Acute dermal toxicity  
rabbit: LD50: > 5,050 mg/kg

Acute inhalation toxicity  
rat: LC50: > 2.8 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.

rat: LC50: > 11.2 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.

Skin irritation  
rabbit: No skin irritation

Eye irritation  
rabbit: Minimally irritating.
Sensitisation
guinea pig: Non-sensitizing.

Chronic toxicity
Tebuconazole did not cause specific target organ toxicity in experimental animal studies.

Metalaxyl caused liver effects in chronic studies in mice, rats and/or dogs.

Assessment Carcinogenicity
Tebuconazole caused an increased incidence of tumours in the liver of mice at high dose levels. The mechanism of tumour formation in the liver of the mice is not considered to be relevant to man.

Metalaxyl was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH
None.
NTP
None.
IARC
None.
OSHA
None.

Reproductive toxicity
Tebuconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Tebuconazole is related to general toxicity.

Metalaxyl did not cause reproductive toxicity in a multi-generation study in rats.

Developmental Toxicity
Tebuconazole caused developmental toxicity only at dose levels toxic to the dams. Tebuconazole caused an increased incidence of post implantation losses, an increased incidence of non-specific malformations.

Assessment neurotoxicity
Metalaxyl neurotoxicity studies are not required at this time.

Mutagenicity
Tebuconazole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Metalaxyl was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Environmental precautions
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 surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

Ecological Information
Exposed treated seed may be hazardous to birds.
SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance
Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Open dumping is prohibited.

Container Disposal
Do not re-use empty containers. Triple rinse containers. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

SECTION 14. TRANSPORT INFORMATION

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON

SECTION 15. REGULATORY INFORMATION

PCP Registration No. 27692

US Federal Regulations
TSCA list
1,2-Propanediol 57-55-6

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
None.

SARA Title III - Section 302 - Notification and Information
None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting
None.

US States Regulatory Reporting
CA Prop65
This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients
1,2-Propanediol 57-55-6 MN, RI

Canadian Regulations
Canadian Domestic Substance List
Environmental
CERCLA
None.
Clean Water Section 307 Priority Pollutants
None.
Safe Drinking Water Act Maximum Contaminant Levels
None.

International Regulations
European Inventory of Existing Commercial Substances (EINECS)
Metalaxyl 57837-19-1

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):
Health - 1 Flammability - 1 Instability - 0 Others - none

Health - 1 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Reviewed and updated for general editorial purposes. The following sections have been revised: Section 3: Composition / Information on Ingredients. Section 7: Handling and Storage. Section 16: Other Information.

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 03/23/2012

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