



Material Safety Data Sheet
TRILEX® AL FLOWABLE FUNGICIDE

MSDS Number: 102000013238
 MSDS Version 1.1
 Revision Date: 04/29/2009

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name TRILEX® AL FLOWABLE FUNGICIDE
MSDS Number 102000013238
PCP Registration No. 29160

Bayer CropScience Inc
 #100 - 3131 - 114th Avenue SE
 Calgary, AB T2Z 3X2
 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. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Trifloxystrobin	141517-21-7	1.275
Metalaxyl	57837-19-1	1.017
Glycerine	56-81-5	

SECTION 3. HAZARDS IDENTIFICATION

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

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

Physical State homogeneous liquid dispersion

Appearance red

Routes of Exposure Eye contact, Inhalation, Skin contact

Immediate Effects

Eye Causes eye irritation. Avoid contact with eyes.

Skin May cause slight irritation. Avoid contact with skin and clothing.

Ingestion Do not take internally.

Inhalation Avoid inhalation of vapour or mist.

Chronic or Delayed Long-Term This product or its components may have target organ effects.



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Potential Environmental Effect Toxic to fish and aquatic invertebrates.

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 Treatment	Treat symptomatically. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	no data available
Autoignition Temperature	no data available
Lower Flammability Limit	no data available
Upper Flammability Limit	no data available
Fire and Explosion Hazards	Dangerous gases are evolved in the event of a fire.
Suitable Extinguishing Media	Carbon dioxide (CO2), Foam, Dry chemical, Water spray



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Fire Fighting Instructions Keep out of smoke. Fight fire from upwind position. Cool closed containers/ tanks 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). 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.

Keep away from heat and sources of ignition.

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

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



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PPE separately from other laundry.

- Eye/Face Protection** 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

Trifloxystrobin	141517-21-7	OES BCS*		2.7 mg/m3
Glycerine	56-81-5	OEL (QUE)	TWA	10 mg/m3
		CAD AB OEL	TWA	10 mg/m3
		CAD BC OEL	TWA	10 mg/m3
		CAD BC OEL	TWA	3 mg/m3
		CAD ON OEL	TWA	10 mg/m3

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** red
- Physical State** homogeneous liquid dispersion
- pH** 6.0 - 8.0 (100 %)
- Vapor Pressure** no data available
- Vapor Density (Air = 1)** no data available
- Density** approx. 1.08 g/cm³ at 20 °C
- Evaporation rate** no data available
- Boiling Point** no data available
- Melting / Freezing Point** no data available
- Partition coefficient: n-octanol/water** no data available
- Viscosity** 350 - 500 mPa.s



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SECTION 10. STABILITY AND REACTIVITY

Conditions to Avoid	Extremes of temperature and direct sunlight.
Incompatibility	Strong acids Strong bases Oxidizing agents
Hazardous Decomposition Products	Thermal decomposition can lead to release of: Carbon monoxide Carbon dioxide (CO ₂) Nitrogen oxides (NO _x)
Hazardous Reactions	Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

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

Acute Oral Toxicity	female rat: LD50: > 5,000 mg/kg
Acute Dermal Toxicity	male/female combined rat: LD50: > 5,000 mg/kg
Acute Inhalation Toxicity	male/female combined rat: LC50: > 2.6 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. (actual)
	male/female combined rat: LC50: > 10.4 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50. (actual)
Skin Irritation	rabbit: Slight irritation.
Eye Irritation	rabbit: Minimally irritating.
Sensitization	guinea pig: Non-sensitizing.
Chronic Toxicity	Trifloxystrobin caused liver effects in chronic studies in mice, rats and/or dogs. Metalaxyl caused liver effects in chronic studies in mice, rats and/or dogs.

Assessment Carcinogenicity

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



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

- ACGIH**
None.
- NTP**
None.
- IARC**
None.
- OSHA**
None.

Reproductive & Developmental Toxicity

REPRODUCTION:
Trifloxystrobin is not considered a primary reproductive toxicant in rats.

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

DEVELOPMENTAL TOXICITY:
Trifloxystrobin is not considered a primary developmental toxicant in laboratory animals. Developmental effects were observed only at doses that caused maternal toxicity.

Metalaxyl is not considered a primary developmental toxicant in laboratory animals. Developmental effects were observed only at doses that caused maternal toxicity.

Neurotoxicity

Trifloxystrobin is not a primary neurotoxicant based on an acute (oral gavage) neurotoxicity screening study in rats.

Metalaxyl neurotoxicity studies are not required at this time.

Mutagenicity

Trifloxystrobin was not considered mutagenic or genotoxic based on 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.



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SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Open dumping is prohibited. Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

Container Disposal Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

SECTION 14. TRANSPORT INFORMATION

TDG (Canada):
 Not regulated for road or rail.

SECTION 15. REGULATORY INFORMATION

PCP Registration No. 29160

US Federal Regulations

TSCA list

Glycerine 56-81-5

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

Glycerine 56-81-5 IL, MN, RI

Canadian Regulations

Canadian Domestic Substance List

Glycerine 56-81-5

Environmental

CERCLA

None.



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Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Reactivity - 0 Others - none

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

Reason to Revise: Updated Section 1: Chemical Product and Company Information.

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

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