



Material Safety Data Sheet

ALLEGIANCE™ FL

MSDS Number: 102000012827

MSDS Version 2.3

Revision Date: 09/02/2010

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name ALLEGIANCE™ FL
MSDS Number 102000012827
PCP Registration No. 26674

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 Warning! Harmful if swallowed or absorbed through skin. Causes skin irritation. Moderate eye irritation. Do not get in eyes, on skin, or on clothing. Avoid inhalation of vapour or mist.

Physical State liquid

Odor musty

Appearance light brown

Exposure routes Skin Absorption, Skin contact, Eye contact, Ingestion, Inhalation

Immediate Effects

Eye Moderate eye irritation. Do not get in eyes.

Skin Causes skin irritation. Harmful if absorbed through skin. Do not get on skin or clothing.

Ingestion Harmful if swallowed. 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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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Metalaxyl	57837-19-1	28.35
Attapulgate clay	12174-11-7	0.40

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	> 93.4 °C / > 200.1 °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: nitrogen oxides (NOx) Carbon dioxide (CO2) Carbon monoxide (CO)



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Suitable extinguishing media	Foam, Dry chemical, Carbon dioxide (CO2)
Fire Fighting Instructions	<p>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.</p> <p>Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.</p>

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.
Work/Hygienic Procedures	<p>Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.</p> <p>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.</p>
Min/Max Storage Temperatures	<p>Recommended minimum transport/storage temperature: 0 °C / 32 °F</p> <p>Recommended maximum transport/storage temperature: 35 °C / 95 °F</p>



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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

Attapulgate clay	12174-11-7	OEL (QUE)	TWA	1 fibres/cm3 (non-asbestos fibres) -- size restrictions apply
Kaolin	1332-58-7	OEL (QUE)	TWA	5 mg/m3
		CAD AB OEL	TWA	2 mg/m3
		CAD BC OEL	TWA	2 mg/m3
		CAD ON OEL	TWAEV	2 mg/m3
		OEL (QUE)	TWA	5 mg/m3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance light brown

Physical State liquid

Odor musty

pH 5.0 - 8.0 (100 %)

Vapor Pressure no data available

Vapor Density (Air = 1) no data available

Density 1.10 g/cm³ at 20 °C

Evaporation rate no data available

Boiling Point no data available



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Melting / Freezing Point	no data available
Water solubility	miscible
Minimum Ignition Energy	no data available
Partition coefficient: n-octanol/water	no data available

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatibility	Strong acids Strong bases Oxidizing agents
Chemical Stability	Stable under recommended storage 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 ingredient, metalaxyl.

Acute oral toxicity	rat: LD50: > 2,900 mg/kg
Acute dermal toxicity	rabbit: LD50: > 2,000 mg/kg
Acute inhalation toxicity	rat: LC50: > 21.94 mg/l Exposure time: 1 h No deaths
Skin irritation	Moderate skin irritation.
Eye irritation	Moderate eye irritation.
Chronic toxicity	Metalaxyl caused liver effects in chronic studies in mice, rats and/or dogs.

Assessment Carcinogenicity

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

ACGIH
None.

NTP
None.

IARC
Attapulgite clay

12174-11-7

Overall evaluation: 2B



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Attapulgate clay
OSHA
None.

12174-11-7

Overall evaluation: 3

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

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

Neurotoxicity Metalaxyl neurotoxicity studies are not required at this time.

Mutagenicity 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 apply when weather conditions favor runoff or drift. 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.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Follow container label instructions for disposal of wastes generated during use in compliance with the product label.

Container Disposal 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. 26674



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US Federal Regulations

TSCA list

None.

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 contains a chemical known to the State of California to cause cancer.
Attapulgite clay 12174-11-7

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

US State Right-To-Know Ingredients

Attapulgite clay 12174-11-7 CA

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

None.

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 - 2 Flammability - 1 Reactivity - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

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: Updated for general editorial purposes. The following sections have been revised:
Section 16: Other Information.

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



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