



Material Safety Data Sheet
CHIPCO® SIGNATURE® FUNGICIDE

MSDS Number: 102000020218
 MSDS Version 2.0
 Revision Date: 04/24/2009

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name CHIPCO® SIGNATURE® FUNGICIDE
MSDS Number 102000020218
PCP Registration No. 432-890

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>
Fosetyl Aluminium	39148-24-8	80.00
Nonylphenol ethoxylate, branched	68412-54-4	
Sulfomethylated lignosulfonic acid, sodium salt	68512-34-5	

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Warning! Causes eye irritation. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes and clothing.

Physical State water-dispersible granules

Odor slightly acidic

Appearance green

Routes of Exposure Eye contact, Skin Absorption, Ingestion, Inhalation

Immediate Effects

Eye Causes redness, irritation, tearing. Avoid contact with eyes.

Skin Slight irritation. Causes redness, swelling. Harmful if absorbed through skin. Avoid contact with skin and clothing.

Ingestion Harmful if swallowed. Do not take internally.

Inhalation May cause upper respiratory tract irritation. Harmful if inhaled. Avoid breathing dust.



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Chronic or Delayed Long-Term	This product or its components may have target organ effects.
Medical Conditions Aggravated by Exposure	Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.
Potential Environmental Effect	Toxic to aquatic and estuarine 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 Hazards	Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
Treatment	Treat symptomatically. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	not applicable
Autoignition Temperature	no data available
Lower Flammability Limit	not applicable



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Upper Flammability Limit	not applicable
Explosiveness	no data available
Fire and Explosion Hazards	Dangerous gases are evolved in the event of a fire.
Suitable Extinguishing Media	Foam, Dry powder, Carbon dioxide (CO2), Water spray
Fire Fighting Instructions	<p>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.</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	Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. 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. Use only in area provided with appropriate exhaust ventilation.
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	<p>Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Smoking, eating and drinking should be prohibited in the application area.</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>



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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

Fosetyl Aluminium	39148-24-8	OES BCS*	10 mg/m3
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*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	green
Physical State	water-dispersible granules
Odor	slightly acidic
pH	3.9
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Bulk Density	32 - 38 lb/ft ³
Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available



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Minimum Ignition Energy no data available

Partition coefficient: n-octanol/water no data available

SECTION 10. STABILITY AND REACTIVITY

Conditions to Avoid	Exposure to moisture.
Incompatibility	Strong oxidizing agents Strong acids Strong bases
Hazardous Decomposition Products	Thermal decomposition Carbon monoxide Nitrogen oxides (NOx) Oxides of phosphorus
Hazardous Reactions	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 ingredient, fosetyl aluminum.

Acute Oral Toxicity	male/female combined rat: LD50: 2,860 mg/kg
Acute Dermal Toxicity	rabbit: LD50: > 2,020 mg/kg
Acute Inhalation Toxicity	male/female combined rat: LC50: > 5.0 mg/l Exposure time: 4 h Determined in the form of dust.
	male/female combined rat: LC50: > 20.0 mg/l Exposure time: 1 h Determined in the form of dust. Extrapolated from the 4 hr LC50.
Skin Irritation	rabbit: Slight irritation.
Eye Irritation	rabbit: Mild eye irritation.
Sensitization	guinea pig: Non-sensitizing.
Chronic Toxicity	Fosetyl-al caused adrenal, urinary bladder and/or testicular effects in chronic studies in rats and dogs.
Assessment Carcinogenicity	



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Fosetyl-al was not carcinogenic in an oncogenicity study in mice. In a carcinogenicity study in rats, an increased incidence of urinary bladder tumors were seen at extremely high doses not likely to occur outside the experimental laboratory. Therefore, EPA concluded that fosetyl-al is not likely to pose a carcinogenic hazard to humans.

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

Reproductive & Developmental Toxicity

REPRODUCTION: Fosetyl-al was not a reproductive toxicant in a multi-generation reproduction study in rats.

DEVELOPMENTAL TOXICITY: Fosetyl-al was not a primary developmental toxicant in rats and rabbits. Developmental effects were observed in rats but were considered secondary to maternal toxicity.

Mutagenicity

Fosetyl-al was not mutagenic or genotoxic 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. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Apply this product as specified on the label.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance

Pesticide wastes are acutely hazardous. 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.

Container Disposal

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.



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SECTION 14. TRANSPORT INFORMATION

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

SECTION 15. REGULATORY INFORMATION

PCP Registration No. 432-890

US Federal Regulations

TSCA list

Nonylphenol ethoxylate, branched 68412-54-4
Sulfomethylated lignosulfonic acid, sodium salt 68512-34-5

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

None.

Canadian Regulations

Canadian Domestic Substance List

Nonylphenol ethoxylate, branched 68412-54-4
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Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.



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SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

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

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

Reason to Revise: Updated Section 2.

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

Revision Date: 04/24/2009

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