



**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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<b>Chronic or Delayed Long-Term</b>	This product or its components may have target organ effects.
<b>Medical Conditions Aggravated by Exposure</b>	Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.
<b>Potential Environmental Effect</b>	Toxic to aquatic and estuarine invertebrates.

**SECTION 4. FIRST AID MEASURES**

<b>General</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Eye</b>	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.
<b>Skin</b>	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.
<b>Ingestion</b>	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.
<b>Inhalation</b>	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.
<b>Notes to Physician Hazards</b>	Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
<b>Treatment</b>	Treat symptomatically. There is no specific antidote.

**SECTION 5. FIRE FIGHTING MEASURES**

<b>Flash point</b>	not applicable
<b>Autoignition Temperature</b>	no data available
<b>Lower Flammability Limit</b>	not applicable



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<b>Upper Flammability Limit</b>	not applicable
<b>Explosiveness</b>	no data available
<b>Fire and Explosion Hazards</b>	Dangerous gases are evolved in the event of a fire.
<b>Suitable Extinguishing Media</b>	Foam, Dry powder, Carbon dioxide (CO2), Water spray
<b>Fire Fighting Instructions</b>	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**

<b>Personal Precautions</b>	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
<b>Methods for cleaning up</b>	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.
<b>Additional Advice</b>	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

**SECTION 7. HANDLING AND STORAGE**

<b>Handling Procedures</b>	Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation.
<b>Storing Procedures</b>	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.
<b>Work/Hygienic Procedures</b>	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.  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.



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**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>General Protection</b>	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.
<b>Eye/Face Protection</b>	Tightly fitting safety goggles
<b>Hand protection</b>	Chemical resistant nitrile rubber gloves
<b>Body Protection</b>	Wear long-sleeved shirt and long pants and shoes plus socks.
<b>Respiratory Protection</b>	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**

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

<b>Conditions to Avoid</b>	Exposure to moisture.
<b>Incompatibility</b>	Strong oxidizing agents Strong acids Strong bases
<b>Hazardous Decomposition Products</b>	Thermal decomposition Carbon monoxide Nitrogen oxides (NOx) Oxides of phosphorus
<b>Hazardous Reactions</b>	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.

<b>Acute Oral Toxicity</b>	male/female combined rat: LD50: 2,860 mg/kg
<b>Acute Dermal Toxicity</b>	rabbit: LD50: > 2,020 mg/kg
<b>Acute Inhalation Toxicity</b>	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.
<b>Skin Irritation</b>	rabbit: Slight irritation.
<b>Eye Irritation</b>	rabbit: Mild eye irritation.
<b>Sensitization</b>	guinea pig: Non-sensitizing.
<b>Chronic Toxicity</b>	Fosetyl-al caused adrenal, urinary bladder and/or testicular effects in chronic studies in rats and dogs.
<b>Assessment Carcinogenicity</b>	



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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**

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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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