



**Material Safety Data Sheet**  
**CHIPCO® SIGNATURE™ FUNGICIDE**

MSDS Number: 102000012508  
 MSDS Version 2.1  
 Revision Date: 10/16/2006

**SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

**Product Name** CHIPCO® SIGNATURE™ FUNGICIDE  
**MSDS Number** 102000012508  
**EPA Registration No.** 432-890

Bayer Environmental Science  
 2 T.W. Alexander Drive  
 Research Triangle PK, NC 27709  
 USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)  
 For Product Information call: 1-800-331-2867

**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
Quartz (Silica, Crystalline)	14808-60-7	0.054
Trade Secret Ingredient(s)		

**SECTION 3. HAZARDS IDENTIFICATION**

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

**Emergency Overview** Caution! Harmful if swallowed, inhaled or absorbed through the skin. Hazard to humans and domestic animals. Causes moderate eye injury. Keep out of the reach of children. Avoid contact with skin, eyes and clothing.

**Physical State** granular  
**Odor** slightly acidic  
**Appearance** green  
**Immediate Effects**  
**Eye** Irritant. Causes redness, tearing.  
**Skin** Irritant. Causes redness, swelling.  
**Inhalation** May cause upper respiratory tract irritation.



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**Chronic or Delayed Long-Term**

This product contains ingredients that are considered to be probable or suspected human carcinogens (see Section 11 - Chronic).

This product is not listed as a carcinogen by ACGIH, NTP, IARC or OSHA. However, it may contain crystalline silica (quartz), a substance which has been listed as a carcinogen by ACGIH, NTP and IARC. Crystalline silica is a naturally-occurring mineral component of many sands and clays. Although the carcinogenic potential of crystalline silica in humans is controversial, it must be considered if it is inhaled under excessive exposure conditions. The respirable portion of the silica that may be contained in this product, however, is small, such that inhalation exposure during anticipated conditions of use is minimal.

**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.

**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**

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



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**SECTION 5. FIRE FIGHTING MEASURES**

<b>Flash point</b>	not applicable
<b>Fire and Explosion Hazards</b>	Under fire conditions, toxic, corrosive fumes are emitted.
<b>Suitable Extinguishing Media</b>	foam, dry powder, carbon dioxide (CO2)
<b>Fire Fighting Instructions</b>	<p>Keep out of smoke. Fight fire from upwind position. Cool containers / tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Equipment or materials involved in pesticide fires may become contaminated.</p> <p>Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.</p>

**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 product to enter streams, sewers or other waterways.

**SECTION 7. HANDLING AND STORAGE**

<b>Handling Procedures</b>	Smoking, eating and drinking should be prohibited in the application area. Handle and open container in a manner as to prevent spillage.
<b>Storing Procedures</b>	Do not contaminate water, food, or feed by storage or handling. 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>	<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>Take off contaminated clothing and shoes immediately. Then wash thoroughly and put on clean clothing.</p> <p>Remove Personal Protective Equipment (PPE) immediately after handling this</p>



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product. Before removing gloves clean them with soap and water. As soon as practical, wash thoroughly and change into clean clothing.

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

- General Protection** These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.
- Engineering Controls** Provide appropriate exhaust ventilation at places where dust is formed.
- 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 respiratory protection is necessary under the conditions of use, wear a NIOSH approved respirator.

**Exposure Limits**

Quartz (Silica, Crystalline)	14808-60-7	ACGIH	TWA	0.05 mg/m3
		Form of Exposure		Respirable fraction.
		ACGIH NIC	TWA	0.025 mg/m3
		Form of Exposure		Respirable fraction.
		NIOSH	REL	0.05 mg/m3
		Form of Exposure		Respirable dust.
		OSHA Z1A	TWA	0.1 mg/m3
		Form of Exposure		Respirable dust.
		Z3	TWA	2.4 millions of particles per cubic foot of air
		Form of Exposure		Respirable.
		Remarks		The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.
		Z3	TWA	0.1 mg/m3
		Form of Exposure		Respirable.
		Remarks		The value is calculated from a specified equation using a



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value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.

		Z3	TWA	0.3 mg/m3
		Form of Exposure		Total dust.
		Remarks		The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.
		US CA OEL	TWA PEL	0.1 mg/m3
		Form of Exposure		Respirable dust.
		US CA OEL	TWA PEL	0.3 mg/m3
		Form of Exposure		Total dust.
		OSHA Z1	PEL	5 mg/m3
		Form of Exposure		Respirable fraction.
		OSHA Z1	PEL	15 mg/m3
		Form of Exposure		Total dust.
Amorphous silica	63231-67-4	ACGIH	TWA	10 mg/m3
		Form of Exposure		Inhalable particles.
		ACGIH	TWA	3 mg/m3
		Form of Exposure		Respirable particles.
		OSHA Z1	PEL	5 mg/m3
		Form of Exposure		Respirable fraction.
		OSHA Z1	PEL	15 mg/m3
		Form of Exposure		Total dust.
		OSHA Z1A	TWA	5 mg/m3
		Form of Exposure		Respirable fraction.
		OSHA Z1A	TWA	15 mg/m3
		Form of Exposure		Total dust.
		Z3	TWA	15 millions of particles per cubic foot of air
		Form of Exposure		Respirable fraction.
		Z3	TWA	50 millions of particles per cubic foot of air
		Form of Exposure		Total dust.
		Z3	TWA	5 mg/m3
		Form of Exposure		Respirable fraction.
		Z3	TWA	15 mg/m3
		Form of Exposure		Total dust.
		US CA OEL	TWA PEL	5 mg/m3
		Form of Exposure		Respirable fraction.
		US CA OEL	TWA PEL	10 mg/m3
		Form of Exposure		Total dust.
		US CA OEL	TWA PEL	5 mg/m3
		Form of Exposure		Respirable fraction.



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US CA OEL	TWA PEL	10 mg/m3
Form of Exposure		Total dust.
US CA OEL	TWA PEL	5 mg/m3
Form of Exposure		Respirable fraction.
US CA OEL	TWA PEL	10 mg/m3
Form of Exposure		Total dust.
Z3	TWA	20 millions of particles per cubic foot of air
Z3	TWA	0.8 mg/m3
Remarks		The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	green
<b>Physical State</b>	granular
<b>Odor</b>	slightly acidic
<b>pH</b>	3.5 - 4.0 (5 %)
<b>Water solubility</b>	dispersible
<b>Partition coefficient (n-octanol/water)</b>	log Pow: -2.1 The value mentioned relates to the active ingredient fosetyl aluminium.

**SECTION 10. STABILITY AND REACTIVITY**

<b>Chemical Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Exposure to moisture.
<b>Incompatibility</b>	mineral acids strong bases strong oxidizing agents strong reducing agents
<b>Hazardous Decomposition Products</b>	Thermal decomposition phosphine gas oxides of phosphorus Carbon oxides





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were considered secondary to maternal toxicity.

**Mutagenicity** Fosetyl-al was not mutagenic or genotoxic in a battery of in vitro and in vivo mutagenicity studies.

**SECTION 12. ECOLOGICAL INFORMATION**

**Environmental Precautions** Toxic to aquatic and estuarine invertebrates. 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.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**General Disposal Guidance** In accordance with current regulations may be taken to waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority.

**Container Disposal** Empty remaining contents. Triple rinse containers. Puncture container to avoid re-use. Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet.

**SECTION 14. TRANSPORT INFORMATION**

**DOT TRANSPORTATION CLASSIFICATION:**  
Not regulated for shipment by any mode of transportation

**FREIGHT TRANSPORTATION:**  
Insecticides or Fungicides, N.O.I.; other than poison

**SECTION 15. REGULATORY INFORMATION**

**EPA Registration No.** 432-890

**US Federal Regulations**

**TSCA list**

Quartz (Silica, Crystalline) 14808-60-7

**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**





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**CA Prop65**

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

**US State Right-To-Know Ingredients**

Fosetyl Aluminium 39148-24-8 CA, IL, MN  
Quartz (Silica, Crystalline) 14808-60-7 IL, MA, MN, RI

**Canadian Regulations**

**Canadian Domestic Substance List**

Quartz (Silica, Crystalline) 14808-60-7

**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)**

Fosetyl Aluminium 39148-24-8  
Quartz (Silica, Crystalline) 14808-60-7

**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 11, Toxicological Information.

Revision Date: 10/16/2006

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