

**CHIPCO® SIGNATURE™**

MSDS Version 2.5

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	CHIPCO® SIGNATURE™
Chemical Name	Ethyl Hydrogen Phosphonate, Fosetyl-Al
Synonym	
MSDS Number	43
Chemical Family	
Chemical Formulation	C6H18AlO9P3
EPA Registration No.	432-890
Canadian Registrat. No.	

Bayer Environmental Science
 95 Chestnut Ridge Road
 Montvale, NJ 07645
 USA

For Product Use Information: (800)331-2867 Monday through Friday
 8:00AM-4:30PM

For Medical Emergency contact DART: (800) 334-7577 24 Hours/Day

For Transportation Emergency CHEMTREC: (800) 424-9300 24 Hours/Day

Product Use Description FIFRA regulated use only.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
ALUMINUM TRIS (O-ETHYL PHOSPHONATE)	39148-24-8	80.0000	
QUARTZ	14808-60-7		< 0.2500
Other ingredients (Trade secret)			

Material Safety Data Sheet

CHIPCO® SIGNATURE™

MSDS Number: 00000000043
MSDS Version 2.5

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview	Caution. Keep out of the reach of children. Hazard to humans and domestic animals. Harmful if swallowed, inhaled or absorbed through the skin. Causes moderate eye injury. Avoid contact with skin, eyes and clothing.
Physical State	solid granules
Odor	acidic odor
Appearance	green
Immediate Effects	
Eye	Irritant. Causes redness, tearing. Causes moderate eye injury. Avoid contact with eyes.
Skin	Harmful if absorbed through the skin. Irritant. Causes redness, swelling. Avoid contact with skin or clothing.
Ingestion	Harmful if ingested.
Inhalation	Harmful if inhaled. May cause upper respiratory tract irritation.
Chronic or Delayed Long-Term	This product contains ingredients that are considered to be probable or suspected human carcinogens (See Section 11 - Chronic).
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

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 poison control center or doctor for treatment advice.
Skin	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Ingestion	Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor.
Inhalation	Move person 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 poison control center or doctor for further treatment advice.

Material Safety Data Sheet

CHIPCO® SIGNATURE™

MSDS Number: 00000000043
MSDS Version 2.5

Note to Physician Have the product container or label with you when calling a poison control center or doctor or going for treatment.

All treatment should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. No specific antidote available.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point Not applicable

Fire and Explosion Hazards Under fire conditions, toxic, corrosive fumes are emitted.

Suitable Extinguishing Media Small Fires:, dry chemical, carbon dioxide (CO2)

Large Fires:, water spray, alcohol foam, polymer foam, ordinary foam

Fire Fighting Instructions Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Dike areas to prevent runoff and contamination of water sources. Dispose of fire control water later.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal Evacuation Procedures and Safety: Wear appropriate gear for the situation. See Personal Protection information in Section 8. Ventilate closed spaces before entering. Stay upwind if possible.

Cleanup and Disposal of Spill: Avoid creation of dusty conditions. Scrape up and place in appropriate closed container (see Section 7: Handling and Storage). Decontaminate tools and equipment following cleanup.

Land Spill or Leaks Containment of Spill: Follow procedure under Cleanup and Disposal of Spill.

Environmental and Regulatory Reporting: If spilled on the ground, the affected area should be scraped clean and placed in an appropriate container for disposal. Do not flush to drain. Prevent material from entering public sewer system or any waterway.

SECTION 7. HANDLING AND STORAGE

Handling Procedures Avoid direct or prolonged contact with skin and eyes. Do not breathe dusts. Do not breathe vapors and mists. Do not ingest.

Storing Procedures Do not contaminate water, food, or feed by storage or disposal. Store in original

Material Safety Data Sheet

CHIPCO® SIGNATURE™

MSDS Number: 00000000043
MSDS Version 2.5

container. Keep container tightly closed. Keep in a dry, cool place.

Work/Hygienic Procedures

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Min/Max Storage Temperatures

Not Available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Where engineering controls are indicated by use conditions of a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures:

When handlers used closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [(40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Eye/Face Protection

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

It is generally regarded as good practice to wear a minimum of safety glasses with side shields when working in industrial environments.

Body Protection

Applicators and other handlers must wear: Long-sleeved shirt and long pants chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride. shoes plus socks protective eyewear.

Respiratory Protection

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Material Safety Data Sheet

CHIPCO® SIGNATURE™

MSDS Number: 00000000043
MSDS Version 2.5

Under normal conditions, in the absence of other airborne contaminants, the following should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): Air-purifying (half-mask/full-face) respirator with cartridge/canister approved for use against dusts, mists and fumes, pesticides.

Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a self-contained breathing apparatus unit.

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.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Exposure Limits

ALUMINUM TRIS (O-ETHYL PHOSPHONATE)	39148-24-8	NIOSH	REL	2 mg/m3
		Expressed as	as Al	
		OSHA Z1A	TWA	2 mg/m3
		Expressed as	as Al	
		US CA OEL	TWA PEL	2 mg/m3
		ACGIH	TWA	2 mg/m3
QUARTZ	14808-60-7	NIOSH	REL	0.05 mg/m3
		Form of Exposure	Respirable dust.	
		OSHA Z1A	TWA	0.1 mg/m3
		Form of Exposure	Respirable dust.	
		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.	
		ACGIH	TWA	0.05 mg/m3

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	green
Physical State	solid granules

Material Safety Data Sheet

CHIPCO® SIGNATURE™

MSDS Number: 000000000043

MSDS Version 2.5

Odor	acidic odor
pH	3.5 - 4.0 at 5 wt/wt%.
Vapor Pressure	Not available
Vapor Density (air = 1)	Not available
Specific Gravity	Not Available
Boiling Point	Not available
Melting/Freezing Point	Not available
Solubility (in water)	dispersible
Molecular Weight	354.1 g/mol
Other Information	Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	This material is stable under normal handling and storage conditions described in Section 7.
Conditions to Avoid	moisture
Incompatibility	strong bases strong oxidizing agents mineral acids strong reducing agents
Hazardous Products of Decomposition	Decomposition Type: thermal oxides of phosphorus carbon oxides phosphine gas

Material Safety Data Sheet

CHIPCO® SIGNATURE™

MSDS Number: 000000000043
MSDS Version 2.5

Hazardous Polymerization
(Conditions to avoid) not applicable

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity Rat: 2,860 mg/kg

Acute Dermal Toxicity Rabbit: 2,000 mg/kg

Acute Inhalation Toxicity Rat: LC50: > 5.0 mg/l 4 h

Acute Respiratory Irritation:
No test data found for product.

Skin Irritation Rabbit: Slightly irritating

Eye Irritation Rabbit: Mildly irritating.

Chronic Toxicity EPA has concluded that fosetyl-AI is unlikely to pose a carcinogenic hazard to humans.

Assessment Carcinogenicity

ACGIH

QUARTZ

14808-60-7

Group A2

NTP

QUARTZ

14808-60-7

IARC

OSHA

None

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions This product is toxic to aquatic and estuarine invertebrates. Drift and runoff may be hazardous to aquatic and estuarine organisms in neighboring areas. 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 water when disposing of equipment washwaters.

Ecological Information For ecotoxicological data call the product information phone number listed in Section 1.

Material Safety Data Sheet

CHIPCO® SIGNATURE™

MSDS Number: 00000000043
MSDS Version 2.5

Environmental Fate For chemical fate data call the product information phone number listed in Section 1.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

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 Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Bag: Completely empty bag into application equipment. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

RCRA Classification Not Regulated under this Statute

SECTION 14. TRANSPORT INFORMATION

Transportation Status:
The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

US Department of Transportation
Shipping Name: NOT REGULATED

SECTION 15. REGULATORY INFORMATION

US Federal	
EPA Registration No.	432-890
TSCA list	
QUARTZ	14808-60-7

Material Safety Data Sheet

MSDS Number: 000000000043

MSDS Version 2.5

CHIPCO® SIGNATURE™

TSCA 12b export notification

None

SARA Title III - section 302 - notification and information

None

SARA Title III - section 313 - toxic chemical release reporting

None

US States Regulatory

CA Prop65

This product contains a chemical known to QUARTZ 14808-60-7
the state of California to cause cancer.

US State right-to-know ingredients

ALUMINUM TRIS (O-ETHYL 39148-24-8 CA, IL, MN, PA
PHOSPHONATE)

QUARTZ 14808-60-7 IL, MA, MN, PA

Canadian Regulations

Canadian Registrat. No.

Canadian Domestic Substance List

QUARTZ 14808-60-7

Environmental

CERCLA

None

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

ALUMINUM TRIS (O-ETHYL 39148-24-8
PHOSPHONATE)

International Regulations

EU Classification

None

European Inventory of Existing Commercial Substances (EINECS)

ALUMINUM TRIS (O-ETHYL 39148-24-8
PHOSPHONATE)

QUARTZ 14808-60-7

Material Safety Data Sheet

CHIPCO® SIGNATURE™

MSDS Number: 000000000043

MSDS Version 2.5

SECTION 16. OTHER INFORMATION

	Health	Flammability	Reactivity	Others
HMIS	2	0	1	
NFPA	2	0	1	

Reason for Revisions: Company name change.

Print Date: 12/04/2002

Supersedes MSDS, which is older than: 12/03/2002

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