



ALIETTE® Brand WDG FUNGICIDE

MSDS Version 1.2

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name ALIETTE® Brand WDG FUNGICIDE
Chemical Name
Synonym Ethyl Hydrogen Phosphonate, Fosetyl-al
MSDS Number 5
Chemical Family
Chemical Formulation
EPA Registration No. 264-516
Canadian Registrat. No.

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

For Product Use Information: (866)-992-2937 Monday through Friday(CRLF) 8:00AM-4:30PM(CRLF) For Medical Emergency contact DART: (800) 334-7577 24 Hours/Day(CRLF) 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	
ACETIC ACID	64-19-7		
CALCIUM HYDROXIDE	1305-62-0	0.3000	
QUARTZ	14808-60-7		
Other ingredients (Trade secret)			

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SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview	Caution. Hazard to humans and domestic animals. Keep out of the reach of children. Harmful if swallowed, inhaled or absorbed through the skin. Causes moderate eye injury. Avoid contact with skin, eyes and clothing.
Physical State	solid
Odor	acidic
Appearance	off white granules
Immediate Effects	
Eye	Irritant. May cause redness, tearing.
Skin	Harmful if absorbed through skin. Irritant. Causes redness, swelling.
Ingestion	Harmful if ingested.
Inhalation	Harmful if inhaled. May cause 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	Immediately call a poison control center or doctor for treatment advice. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Have a person sip a glass of water if able to swallow. Never give anything by mouth to an unconscious person.
Inhalation	Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.

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Note to Physician

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

Like all organic and most dry chemicals, as a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) may present an explosion hazard. 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

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.

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.

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 dust. Do not breathe vapors and mists. Do not ingest. It is recommended that all dust control equipment and material transport systems involved in handling of this product contain explosion relief vents or explosion suppression system or an

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oxygen deficient environment. In addition, all conductive elements of the system that contact this material should be electrically bonded and grounded. This powder should not be appropriately classed electrical equipment.

This product may present a dust explosion hazard.

Storing Procedures

Store in an area that is away from foodstuffs or animal feed.

Work/Hygienic Procedures

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.

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

Wash exposed skin promptly to remove accidental splashes of contact with this material.

Remove clothing immediately if pesticide gets inside.

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.

Min/Max Storage Temperatures

Not available

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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:

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 waterproof gloves shoes plus socks

Consideration must be given both to durability as well as permeation resistance.

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.

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
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			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
ACETIC ACID	64-19-7		ACGIH	TWA	10 ppm
			ACGIH	STEL	15 ppm
			NIOSH	REL	10 ppm 25 mg/m3
			NIOSH	STEL	15 ppm 37 mg/m3
			OSHA Z1	PEL	10 ppm 25 mg/m3
			OSHA Z1A	TWA	10 ppm 25 mg/m3
			US CA OEL	TWA PEL	10 ppm 25 mg/m3
			US CA OEL	Ceiling	40 ppm
			US CA OEL	STEL	15 ppm 37 mg/m3
CALCIUM HYDROXIDE	1305-62-0		ACGIH	TWA	5 mg/m3
			NIOSH	REL	5 mg/m3
			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
			US CA OEL	TWA PEL	5 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	off white granules
Physical State	solid
Odor	acidic
pH	3.6 at 5 wt/wt%
Vapor Pressure	Not available
Vapor Density (air = 1)	Not available
Specific Gravity	Not available

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Boiling Point	Not available
Melting/Freezing Point	Not available
Solubility (in water)	soluble
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	extreme humidity
Incompatibility	strong bases strong acids strong oxidizing agents strong reducing agents
Hazardous Products of Decomposition	Decomposition Type: thermal oxides of phosphorus carbon oxides phosphine gas
Hazardous Polymerization (Conditions to avoid)	Not applicable

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	Rat: LD50: 2,860 mg/kg
Acute Dermal Toxicity	Rabbit: LD50: > 2,000 mg/kg
Acute Inhalation Toxicity	Rat: LC50: > 5 mg/l 4 h Acute Respiratory Irritation: No test data found for product.
Skin Irritation	Rabbit: Slightly irritating
Eye Irritation	Rabbit: Mildly irritating.
Sensitization	Guinea pig: Non-sensitizing

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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 by cleaning of equipment or disposal of equipment wastewaters.

Ecological Information

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

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

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Do not contaminate water, food, or feed by disposal.

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 Disposal: 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 Do not reuse containers.

Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

EPA HAZARDOUS WASTE - NO

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

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SECTION 15. REGULATORY INFORMATION

US Federal

EPA Registration No. 264-516
TSCA list
ACETIC ACID 64-19-7
CALCIUM HYDROXIDE 1305-62-0
QUARTZ 14808-60-7
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 the state of California to cause cancer. QUARTZ 14808-60-7

US State right-to-know ingredients

ALUMINUM TRIS (O-ETHYL PHOSPHONATE)	39148-24-8	CA, IL, MN, PA
ACETIC ACID	64-19-7	CA, CT, IL, MN, NJ, PA, RI
CALCIUM HYDROXIDE	1305-62-0	CA, IL, MN, PA, RI
QUARTZ	14808-60-7	IL, MA, MN, PA

Canadian Regulations

Canadian Registrat. No.
Canadian Domestic Substance List
ACETIC ACID 64-19-7
CALCIUM HYDROXIDE 1305-62-0
QUARTZ 14808-60-7

Environmental

CERCLA
ACETIC ACID 64-19-7 5,000 lbs
Clean Water Section 307 Priority Pollutants
None
Safe Drinking Water Act Maximum Contaminant Levels
ALUMINUM TRIS (O-ETHYL PHOSPHONATE) 39148-24-8

International Regulations

EU Classification
None
European Inventory of Existing Commercial Substances (EINECS)

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ACETIC ACID	64-19-7
CALCIUM HYDROXIDE	1305-62-0
QUARTZ	14808-60-7

SECTION 16. OTHER INFORMATION

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

Reason for Revisions: Company name change.

Print Date: 12/16/2002

Supersedes MSDS, which is older than: 12/16/2002

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