SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name ALIETTE® WDG BRAND FUNGICIDE
MSDS Number 102000004006
EPA Registration No. 264-516
Product Use FUNGICIDE

Bayer CropScience
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 1-866-99BAYER (1-866-992-2937)

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Average % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fosetyl Aluminium</td>
<td>39148-24-8</td>
<td>80.00</td>
</tr>
<tr>
<td>Quartz (Silica, Crystalline)</td>
<td>14808-60-7</td>
<td>0.25</td>
</tr>
</tbody>
</table>

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Harmful if inhaled or absorbed through skin. Causes skin irritation.

Physical State dry free flowable granules

Odor product specific

Appearance brown

Immediate Effects

Eye Causes irritation, redness.

Skin Harmful if absorbed through skin. Irritant. Causes redness, swelling.

Ingestion Harmful if swallowed.

Inhalation Harmful if inhaled. May cause upper respiratory tract irritation.
Chronic or Delayed Long-Term

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

No specific medical conditions are known which may be aggravated by exposure to this product. As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema, or hyperreactive airways disease may be more susceptible to overexposure. Pulmonary and respiratory diseases may be aggravated by exposure to respirable crystalline silica. Skin contact may aggravate existing skin disease.

SECTION 4. FIRST AID MEASURES

General

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 poison control center or doctor for treatment advice.

Skin

Take off all contaminated clothing immediately. Rinse immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.

Ingestion

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. 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.

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 poison control center or doctor for further treatment advice.

Notes to Physician

Signs and Symptoms

The following symptoms may occur:

- eye and mucous membrane irritation
- May cause skin and eye irritation.

Treatment

There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient’s condition is recommended.
SECTION 5. FIRE FIGHTING MEASURES

Flash Point  
not applicable

Autoignition  
Temperature  
no data available

Fire and Explosion  
Hazards  
This product, when mixed with air in critical proportions and in the presence of 
an ignition source, may present a dust explosion hazard.

Under fire conditions, toxic, corrosive fumes are emitted.

Suitable Extinguishing  
Media  
foam, dry powder, carbon dioxide (CO2)

Fire Fighting  
Instructions  
Contain the spread of the fire-fighting media. Dike area to prevent runoff and 
contamination of water sources. Fire residues and contaminated fire 
extinguishing water must be disposed of in accordance with local regulations. 
Equipment or materials involved in pesticide fires may become contaminated.

Firefighters should wear NIOSH approved self-contained breathing apparatus 
and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Methods for Cleaning Up  
Clean up promptly by sweeping or vacuum. Pick up and transfer to properly 
labelled containers.

Additional Advice  
Information regarding safe handling, see section 7. Information regarding 
personal protective equipment, see section 8. Information regarding waste 
disposal, see section 13.

SECTION 7. HANDLING AND STORAGE

Handling Procedures  
Smoking, eating, drinking and the application of cosmetics should be prohibited 
in the application area.

Storing Procedures  
Keep out of the reach of children. Keep away from food, drink and animal 
feedingstuffs.

Work/Hygienic  
Procedures  
Wash hands and face carefully before eating, drinking, using tobacco, applying 
cosmetics, or using the toilet. When in contact with the skin, clean with soap and 
water. Remove clothing immediately if pesticide gets inside.

Follow manufacturer's instructions for cleaning/maintaining Personal Protective 
Equipment (PPE). 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 local and regional regulatory agencies, consult the agency responsible for pesticide regulation.

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

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices.

Safety glasses with side-shields

or

goggles

or

face-shield

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 approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or Industry 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.

Exposure Limits

<table>
<thead>
<tr>
<th>Compound</th>
<th>Threshold Limit</th>
<th>Source</th>
<th>TWA Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fosetyl Aluminium</td>
<td>39148-24-8</td>
<td>ACGIH</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>
Quartz (Silica, Crystalline) 14808-60-7

Expressed as as Al

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 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.

Z1 TWA 2.4 millions of particles per cubic foot of air 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 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 0.3 mg/m³ 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 Respirable dust.

US CA OEL TWA PEL 0.3 mg/m³ Total dust.

OSHA Z1 PEL 5 mg/m³ Respirable fraction.

OSHA Z1 PEL 15 mg/m³
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>brown</td>
</tr>
<tr>
<td>Physical State</td>
<td>dry free flowable granules</td>
</tr>
<tr>
<td>Odor</td>
<td>product specific</td>
</tr>
<tr>
<td>pH</td>
<td>3.5 - 4.0 (1.0 %) at 23 °C</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>dispersible</td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>logPow: -2.1</td>
</tr>
<tr>
<td></td>
<td>The value mentioned relates to the active ingredient fosetyl aluminium.</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Stability</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>extreme humidity</td>
</tr>
<tr>
<td>Incompatibility</td>
<td>strong acids</td>
</tr>
<tr>
<td></td>
<td>strong bases</td>
</tr>
<tr>
<td></td>
<td>strong oxidizing agents</td>
</tr>
<tr>
<td></td>
<td>strong reducing agents</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Thermal decomposition</td>
</tr>
<tr>
<td></td>
<td>oxides of phosphorus</td>
</tr>
<tr>
<td></td>
<td>carbon dioxide (CO2)</td>
</tr>
<tr>
<td></td>
<td>Carbon monoxide</td>
</tr>
<tr>
<td></td>
<td>phosphine gas</td>
</tr>
<tr>
<td>Hazardous Reactions</td>
<td>No hazardous reactions when stored and handled according to prescribed instructions.</td>
</tr>
</tbody>
</table>

SECTION 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Oral Toxicity</td>
<td>rat: LD50: 2,860 mg/kg</td>
</tr>
<tr>
<td>Acute Dermal Toxicity</td>
<td>rabbit: LD50: &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Acute Inhalation Toxicity</td>
<td>rat: LC50: &gt; 5 mg/l</td>
</tr>
<tr>
<td></td>
<td>Exposure time: 4 h</td>
</tr>
<tr>
<td>Skin Irritation</td>
<td>rabbit: slight irritation</td>
</tr>
</tbody>
</table>
Eye Irritation
rabbit: Mild eye irritation

Sensitization
guinea pig: Non-sensitizing

Assessment Carcinogenicity

<table>
<thead>
<tr>
<th>Agency</th>
<th>Substance</th>
<th>CAS Number</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>Quartz (Silica, Crystalline)</td>
<td>14808-60-7</td>
<td>Group A2</td>
</tr>
<tr>
<td>NTP</td>
<td>Quartz (Silica, Crystalline)</td>
<td>14808-60-7</td>
<td></td>
</tr>
<tr>
<td>IARC</td>
<td>Quartz (Silica, Crystalline)</td>
<td>14808-60-7</td>
<td>Overall evaluation: 1</td>
</tr>
<tr>
<td>OSHA</td>
<td>None.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions
This product is toxic to aquatic and estuarine invertebrates. Drift and runoff from treated areas may be hazardous to fish/aquatic organisms in adjacent sites. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark outside of a treated rice field. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance
Follow container label instructions for disposal of wastes generated during use in compliance with the product label. Dispose of product containers, waste containers and residues according to local, state and federal health and environmental regulations.

Container Disposal
Empty remaining contents. Triple rinse containers. Rinsed packaging may be acceptable for landfill, otherwise incineration will be required in accordance with local regulations. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION:
Not regulated for transportation by any mode

FREIGHT CLASSIFICATION:
Insecticides or Fungicides N.O.I., other than poison

SECTION 15. REGULATORY INFORMATION
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

CA Prop65
This product contains a chemical known to the State of California to cause cancer.
Quartz (Silica, Crystalline) 14808-60-7

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 - 2 Flammability - 0 Reactivity - 0 Others - none
0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: Renumbered due to new system; revised hazardous components.
Revision Date: 08/23/2005

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