SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier
Trade name CHIPCO ALIETTE® SIGNATURE FUNGICIDE
Product code (UVP) 79375409
SDS Number 102000020218
PCP Registration No. 28299

Relevant identified uses of the substance or mixture and uses advised against
Use Fungicide
Restrictions on use See product label for restrictions.

Information on supplier
Supplier Bayer CropScience Inc
#200, 160 Quarry Park Blvd, SE
Calgary, Alberta T2C 3G3
Canada
Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.
Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577
Product Information Telephone Number 1-888-283-6847

SECTION 2: HAZARDS IDENTIFICATION

Classified in accordance with Part 2 of the Hazardous Products Regulations
Eye irritation: Category 2B

Labelling in accordance with Part 3 of the Hazardous Products Regulations
Signal word: Warning

Hazard statements
Causes eye irritation.

Precautionary statements
Wash thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.

Hazards Not Otherwise Classified (HNOC)
No physical hazards not otherwise classified.
No health hazards not otherwise classified.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Concentration % by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fosetyl Aluminium</td>
<td>39148-24-8</td>
<td>80.0</td>
</tr>
<tr>
<td>Nonylphenol ethoxylate, branched</td>
<td>68412-54-4</td>
<td>7.0</td>
</tr>
<tr>
<td>Lignosulfonic acid, sodium salt, sulfomethylated</td>
<td>68512-34-5</td>
<td>2.8</td>
</tr>
<tr>
<td>Crystalline quartz (respirable)</td>
<td>14808-60-7</td>
<td>0.12</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice
When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

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.

Skin contact
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.

Eye contact
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.

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.

Most important symptoms and effects, both acute and delayed

Symptoms
The following symptoms may occur: Skin, eye and mucous membrane irritation

Indication of any immediate medical attention and special treatment needed

Risks
Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Treatment
Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.
SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable: Foam, Dry powder, Carbon dioxide (CO2), Water spray

Unsuitable: None known.

Special hazards arising from the substance or mixture

In the event of fire the following may be released: Carbon monoxide (CO), Nitrogen oxides (NOx), Oxides of phosphorus

Advice for firefighters

Special protective equipment for firefighters

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

Further information

Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point

Not applicable

Auto-ignition temperature

No data available

Lower explosion limit

Not applicable

Upper explosion limit

Not applicable

Explosivity

No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions

Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up

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.

Additional advice

Use personal protective equipment. If material is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

Reference to other sections

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

Precautions for safe handling

Advice on safe handling Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation.

Hygiene measures 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.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fosetyl Aluminium (Respirable.)</td>
<td>39148-24-8</td>
<td>1 mg/m3 (TWA)</td>
<td>09 2011</td>
<td>CAD BC OEL</td>
</tr>
<tr>
<td>Fosetyl Aluminium (Respirable fraction.)</td>
<td>39148-24-8</td>
<td>1 mg/m3 (TWA)</td>
<td>03 2011</td>
<td>CAD MB OEL</td>
</tr>
<tr>
<td>Fosetyl Aluminium (Respirable fraction.)</td>
<td>39148-24-8</td>
<td>1 mg/m3 (TWA)</td>
<td>11 2010</td>
<td>CAD ON OEL</td>
</tr>
<tr>
<td>Fosetyl Aluminium (Dust.)</td>
<td>39148-24-8</td>
<td>20 mg/m3 (15 MIN ACL)</td>
<td>05 2009</td>
<td>CAD SK OEL</td>
</tr>
<tr>
<td>Fosetyl Aluminium (Dust.)</td>
<td>39148-24-8</td>
<td>10 mg/m3 (8 HR ACL)</td>
<td>05 2009</td>
<td>CAD SK OEL</td>
</tr>
<tr>
<td>Fosetyl Aluminium</td>
<td>39148-24-8</td>
<td>10 mg/m3 (TWA)</td>
<td></td>
<td>OES BCS*</td>
</tr>
<tr>
<td>Crystalline quartz (respirable) (Respirable particles.)</td>
<td>14808-60-7</td>
<td>0.025 mg/m3 (TWA)</td>
<td>07 2009</td>
<td>CAD AB OEL</td>
</tr>
<tr>
<td>Crystalline quartz (respirable)</td>
<td>14808-60-7</td>
<td>0.025 mg/m3 (TWA)</td>
<td>09 2011</td>
<td>CAD BC OEL</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

CHIPCO ALIETTE® SIGNATURE FUNGICIDE

Version 3.0 / CDN 102000020218

Revision Date: 09/09/2016
Print Date: 09/09/2016

<table>
<thead>
<tr>
<th>(Respirable fraction.)</th>
<th>Crystalline quartz (respirable) (Respirable fraction.)</th>
<th>14808-60-7</th>
<th>0.025 mg/m³ (TWA)</th>
<th>03 2011</th>
<th>CAD MB OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline quartz (respirable) (Respirable fraction.)</td>
<td>14808-60-7</td>
<td>0.10 mg/m³ (TWA)</td>
<td>06 2015</td>
<td>CAD ON OEL</td>
<td></td>
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<tr>
<td>Crystalline quartz (respirable) (Respirable fraction.)</td>
<td>14808-60-7</td>
<td>0.05 mg/m³ (8 HR ACL)</td>
<td>05 2009</td>
<td>CAD SK OEL</td>
<td></td>
</tr>
<tr>
<td>Crystalline quartz (respirable) (Respirable dust.)</td>
<td>14808-60-7</td>
<td>0.1 mg/m³ (TWA)</td>
<td>11 2011</td>
<td>OEL (QUE)</td>
<td></td>
</tr>
</tbody>
</table>

*OES BCS: Internal Bayer CropScience “Occupational Exposure Standard”

Exposure controls

Personal protective equipment
In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

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.

Hand protection Chemical resistant nitrile rubber gloves

Eye protection Goggles

Skin and body protection Wear long-sleeved shirt and long pants and shoes plus socks.

General protective measures 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | green |
| Physical State | water-dispersible granules |
| Odor | slightly acidic |
| Odour Threshold | No data available |
| pH | 3.9 |
| Vapor Pressure | No data available |
| Vapor Density (Air = 1) | No data available |
| Bulk density | 32 - 38 lb/ft³ |
| Evaporation rate | Not applicable |
### Boiling Point
Not applicable

### Melting / Freezing Point
Not applicable

### Water solubility
dispersible

### Minimum Ignition Energy
No data available

### Decomposition temperature
No data available

### Partition coefficient: n-octanol/water
No data available

### Viscosity
Not applicable

### Flash point
Not applicable

### Auto-ignition temperature
No data available

### Lower explosion limit
Not applicable

### Upper explosion limit
Not applicable

### Explosivity
No data available

### SECTION 10: STABILITY AND REACTIVITY

**Reactivity**

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>No dangerous reaction known under conditions of normal use.</td>
</tr>
</tbody>
</table>

**Conditions to avoid**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to moisture.</td>
<td></td>
</tr>
</tbody>
</table>

**Incompatible materials**

Strong oxidizing agents, Strong acids, Strong bases

**Hazardous decomposition products**

No decomposition products expected under normal conditions of use.

### SECTION 11: TOXICOLOGICAL INFORMATION

**Exposure routes**

Eye contact, Skin Absorption, Ingestion, Inhalation

**Immediate Effects**

Eye

Causes redness, irritation, tearing. Causes moderate eye injury.

Information on toxicological effects
Acute oral toxicity
LD50 (male/female combined Rat) 2,860 mg/kg

Acute inhalation toxicity
LC50 (male/female combined Rat) > 5.0 mg/l
Exposure time: 4 h
Determined in the form of dust.

Acute dermal toxicity
LD50 (Rabbit) > 2,020 mg/kg

Skin irritation
slight irritation (Rabbit)

Eye irritation
Mild eye irritation. (Rabbit)

Sensitisation
Non-sensitizing. (Guinea pig)

Assessment STOT Specific target organ toxicity – repeated exposure
Fosetyl Aluminium did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity
Fosetyl Aluminium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity
Fosetyl Aluminium was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH
Fosetyl Aluminium 39148-24-8 Group A4
Crystalline quartz (respirable) 14808-60-7 Group A2

NTP
Crystalline quartz (respirable) 14808-60-7

IARC
Crystalline quartz (respirable) 14808-60-7 Overall evaluation: 1

OSHA
None.

Assessment toxicity to reproduction
Fosetyl Aluminium did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity
Fosetyl Aluminium did not cause developmental toxicity in rats and rabbits.

Further information
Only acute toxicity studies have been performed on the formulated product. The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish
LC50 (Oncorhynchus mykiss (rainbow trout)) > 120 mg/l
Exposure time: 96 h
Test conducted with a similar formulation.
Toxicity to aquatic invertebrates
EC50 (Daphnia magna (Water flea)) 37 mg/l
Exposure time: 48 h
Test conducted with a similar formulation.

Toxicity to aquatic plants
EC50 (Desmodesmus subspicatus (green algae)) 27.7 mg/l
Growth rate; Exposure time: 72 h
Test conducted with a similar formulation.

Biodegradability
Fosetyl Aluminium:
rapidly biodegradable

Koc
Fosetyl Aluminium: Koc: 0.1

Bioaccumulation
Fosetyl Aluminium:
Does not bioaccumulate.

Mobility in soil
Fosetyl Aluminium: Highly mobile in soils

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

Waste treatment methods
Product
Dispose in accordance with all local, state/provincial and federal regulations.
Follow advice on product label and/or leaflet.

Contaminated packaging
Triple rinse containers.
Do not re-use empty 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

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON
SAFETY DATA SHEET

CHIPCO ALIETTE® SIGNATURE FUNGICIDE
Version 3.0 / CDN
102000020218

SECTION 15: REGULATORY INFORMATION

PCP Registration No. 28299
US Federal Regulations
TSCA list
None.
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.
Crystalline quartz (respirable) 14808-60-7

US State Right-To-Know Ingredients
Crystalline quartz (respirable) 14808-60-7 MN

Canadian Regulations
Canadian Domestic Substance List
Nonylphenol ethoxylate, branched 68412-54-4
Lignosulfonic acid, sodium salt, sulfomethylated 68512-34-5
Crystalline quartz (respirable) 14808-60-7

Environmental
CERCLA
None.
Clean Water Section 307 Priority Pollutants
None.
Safe Drinking Water Act Maximum Contaminant Levels
None.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms
49CFR Code of Federal Regulations, Title 49
ACGIH US. ACGIH Threshold Limit Values
ATE Acute toxicity estimate
CAS-Nr. Chemical Abstracts Service number
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
EINECS European inventory of existing commercial substances
ELINCS European list of notified chemical substances
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IMDG International Maritime Dangerous Goods
N.O.S.  Not otherwise specified
NTP  US. National Toxicology Program (NTP) Report on Carcinogens
OECD  Organization for Economic Co-operation and Development
TDG  Transportation of Dangerous Goods
TWA  Time weighted average
UN  United Nations
WHO  World health organisation

NFPA 704 (National Fire Protection Association):
Health - 1  Flammability - 0  Instability - 0  Others - none

Health - 1  Flammability - 0  Physical Hazard - 0  PPE - 0
0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current Canadian WHMIS standard (WHMIS 2015).

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 09/09/2016

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