



CHIPCO® SIGNATURE™ FUNGICIDE

Version 2.0 / USA
102000024562

1/10
Revision Date: 07/29/2014
Print Date: 07/27/2018

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

Product identifier

Trade name CHIPCO® SIGNATURE™ FUNGICIDE

Product code (UVP) 79988761, 80888988

SDS Number 102000024562

EPA Registration No. 432-890

Relevant identified uses of the substance or mixture and uses advised against

Use Fungicide

Restrictions on use See product label for restrictions.

Information on manufacturer

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

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number

SDS Information or Request SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Eye irritation : Category 2B

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.

Other hazards

No other hazards known.



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Component Name | CAS-No. | Concentration % by weight |
|--|------------|---------------------------|
| Fosetyl Aluminium | 39148-24-8 | 80.00 |
| Sodium diisopropylnaphthalene sulphonate | 1322-93-6 | 4.50 |
| Crystalline quartz (respirable) | 14808-60-7 | 0.12 |

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 (CO ₂), Water spray |
| Unsuitable | None known. |



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| 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 fire-fighters | 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 |
| Autoignition 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. 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



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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

| Components | CAS-No. | Control parameters | Update | Basis |
|--|------------|--|---------|-----------|
| Fosetyl Aluminium | 39148-24-8 | 10 mg/m3 (TWA) | | OES BCS* |
| Crystalline quartz (respirable) | 14808-60-7 | 0.1 mg/m3 (TWA) | 1998 | JO TLV |
| Crystalline quartz (respirable) (Respirable fraction.) | 14808-60-7 | 0.025 mg/m3 (TWA) | 02 2012 | ACGIH |
| Crystalline quartz (respirable) (Respirable dust.) | 14808-60-7 | 0.05 mg/m3 (REL) | 2010 | NIOSH |
| Crystalline quartz (respirable) (Respirable dust.) | 14808-60-7 | 0.1 mg/m3 (TWA) | 1989 | OSHA Z1A |
| Crystalline quartz (respirable) (Respirable dust.) | 14808-60-7 | 0.1 mg/m3 (TWA) | 06 2008 | TN OEL |
| Crystalline quartz (respirable) (Particulate.) | 14808-60-7 | 14ug/m3 (ST ESL) | 02 2013 | TX ESL |
| Crystalline quartz (respirable) (Particulate.) | 14808-60-7 | 0.27ug/m3 (AN ESL) | 02 2013 | TX ESL |
| Crystalline quartz (respirable) (Total dust.) | 14808-60-7 | 0.3 mg/m3 (TWA PEL) | 08 2010 | US CA OEL |
| Crystalline quartz (respirable) (Respirable dust.) | 14808-60-7 | 0.1 mg/m3 (TWA PEL) | 08 2010 | US CA OEL |
| Crystalline quartz (respirable) (Respirable.) | 14808-60-7 | 2.4millions of particles per cubic foot of air (TWA) | 2000 | Z3 |



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|---|------------|--------------------|------|----|
| Crystalline quartz (respirable) (Respirable.) | 14808-60-7 | 0.1 mg/m3 (TWA) | 2000 | Z3 |
| Crystalline quartz (respirable) (Total dust.) | 14808-60-7 | 0.3 mg/m3 (TWA) | 2000 | Z3 |

*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 |
| Evapouration rate | not applicable |
| Boiling Point | not applicable |
| Melting / Freezing Point | not applicable |
| Water solubility | dispersible |
| Minimum Ignition Energy | no data available |



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| | |
|---|-------------------|
| Decomposition temperature | no data available |
| Partition coefficient: n-octanol/water | no data available |
| Viscosity | not applicable |
| Flash point | not applicable |
| Autoignition temperature | no data available |
| Lower explosion limit | not applicable |
| Upper explosion limit | not applicable |
| Explosivity | no data available |

SECTION 10: STABILITY AND REACTIVITY

Reactivity

| | |
|---|--|
| Thermal decomposition | no data available |
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Exposure to moisture. |
| 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. |
| Skin | Causes irritation, redness, swelling. Harmful if absorbed through skin. |
| Ingestion | Harmful if swallowed. |
| Inhalation | May cause upper respiratory tract irritation. Harmful if inhaled. |
| Information on toxicological effects | |
| Acute oral toxicity | LD50 (male/female combined rat) 2,860 mg/kg |



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

LC50 (male/female combined rat) > 20.0 mg/l
Exposure time: 1 h
Determined in the form of dust.
Extrapolated from the 4 hr LC50.

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 repeated dose toxicity

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

| | | |
|---------------------------------|------------|----------|
| Crystalline quartz (respirable) | 14808-60-7 | Group A2 |
|---------------------------------|------------|----------|

NTP

| | | |
|---------------------------------|------------|------|
| Crystalline quartz (respirable) | 14808-60-7 | 2000 |
|---------------------------------|------------|------|

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

Acute toxicity studies have been bridged from a similar formulation(s).
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish LC50 (Rainbow trout (*Oncorhynchus mykiss*)) > 120 mg/l



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| | Exposure time: 96 h Test conducted with a similar formulation. |
| Toxicity to aquatic invertebrates | EC50 (Water flea (<i>Daphnia magna</i>)) 37 mg/l Exposure time: 48 h Test conducted with a similar formulation. |
| Toxicity to aquatic plants | EC50 (<i>Scenedesmus subspicatus</i>) 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 | Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. |
| Contaminated packaging | Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet. |
| RCRA Information | Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply. |

SECTION 14: TRANSPORT INFORMATION

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



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

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-890

US Federal Regulations

TSCA list

Sodium diisopropylnaphthalene 1322-93-6
sulphonate

Crystalline quartz (respirable) 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.

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

Sodium diisopropylnaphthalene 1322-93-6
sulphonate

Crystalline quartz (respirable) 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

Sodium diisopropylnaphthalene 1322-93-6
sulphonate

Crystalline quartz (respirable) 14808-60-7

EPA/FIFRA Information:



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This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

Hazard statements: Harmful if swallowed, inhaled or absorbed through the skin.
Causes moderate eye injury.
Avoid contact with skin, eyes and clothing.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 0 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 0 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 07/29/2014

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