FLINT Fungicide

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>FLINT Fungicide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name</td>
<td></td>
</tr>
<tr>
<td>Common Name</td>
<td></td>
</tr>
<tr>
<td>MSDS Number</td>
<td>2117</td>
</tr>
<tr>
<td>Chemical Family</td>
<td></td>
</tr>
<tr>
<td>Chemical Formulation</td>
<td></td>
</tr>
<tr>
<td>EPA Registration No.</td>
<td>264-777</td>
</tr>
</tbody>
</table>

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)

Product Use Description
Fungicide for the control of certain diseases in almonds, cucurbit vegetables, fruiting vegetables, grapes, hops, leafy petiole vegetables, pistachios, pome fruits, root vegetables (except radishes), stone fruits and tree nuts.

SECTION 2. 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></td>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>Trifloxystrobin Technical</td>
<td>141517-21-7</td>
<td>48.5000</td>
</tr>
<tr>
<td>Sodium Sulfate</td>
<td>7757-82-6</td>
<td>4.7000</td>
</tr>
<tr>
<td>Diatomsaceous Earth</td>
<td>61790-53-2</td>
<td>5.0000</td>
</tr>
</tbody>
</table>
SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview
Caution! Causes moderate eye irritation. Harmful if absorbed through the skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling.

Odor
Weak odor, indeterminate

Appearance
Grey to Beige

Routes of Exposure
Eye contact, Skin contact, Inhalation, Skin Absorption

Immediate Effects
Eye
Mildly irritating.

Skin
Slightly irritating. Mildly toxic. Not known to cause skin sensitization.

Medical Conditions Aggravated by Exposure
Individuals with allergic history or pre-existing dermatitis should use extra care in handling this product.

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.

Notes to physician
Treatment
If ingested, induce emesis or lavage stomach. Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point
Not applicable

Auto Ignition Temperature
320 °C / 608 °F

Suitable Extinguishing Media
Dry chemical, Foam, Carbon dioxide (CO2)

Fire Fighting
Wear full protective clothing and self-contained breathing apparatus. Evacuate
Material Safety Data Sheet

FLINT Fungicide

Instructions

nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal

Do not walk through spilled material. Keep unauthorized people away.

Land Spill or Leaks

Small Spill: Sweep up, keeping dust to a minimum, and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

SECTION 7. HANDLING AND STORAGE

Handling Procedures

Handle and open container in a manner as to prevent spillage. Do not use, pour, spill or store near heat or open flame.

Storing Procedures

Do not contaminate water, food, or feed by storage or disposal.

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

Work/Hygienic Procedures

Recommendations for exposure control/personal protection are intended for the manufacture, formulation and packaging of the product. For end-use applications consult the product label.

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.

Wash thoroughly with soap and water after handling.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls
Control exposure levels through the use of general and local exhaust ventilation. When handlers use closed systems, enclosed cabs 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
Safety glasses with side-shields
Chemical goggles

Hand Protection
Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.

Body Protection
Long-sleeved shirt and long pants.
Shoes plus socks.
Coveralls

Respiratory Protection
To avoid breathing dust, use a particulate filter, NIOSH approved per 42 CRF Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95-99.97% as appropriate for the size distribution of dusts present.

General Protection
Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Do not enter treated areas without protective clothing until sprays have dried.

Exposure Limits

<table>
<thead>
<tr>
<th>Substance</th>
<th>OSHA Z1A</th>
<th>US CA OEL</th>
<th>ACGIH Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diatomaeceous Earth</td>
<td>OSHA Z1A</td>
<td>US CA OEL</td>
<td>ACGIH Remarks</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>TWA PEL</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>6 mg/m³</td>
<td>3 mg/m³</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Form of Exposure</td>
<td>Respirable dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>US CA OEL</td>
<td>TWA PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Form of Exposure</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>US CA OEL</td>
<td>TWA PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Form of Exposure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>US CA OEL</td>
<td>TWA PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Form of Exposure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>US CA OEL</td>
<td>TWA PEL</td>
</tr>
</tbody>
</table>

The value is for particulate matter containing no asbestos and <1% crystalline silica.

ACGIH TWA 3 mg/m³
Remarks
The value is for particulate matter containing no asbestos and <1% crystalline silica.
# Material Safety Data Sheet

## FLINT Fungicide

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Grey to Beige</td>
</tr>
<tr>
<td>Odor</td>
<td>Weak odor, indeterminate</td>
</tr>
<tr>
<td>pH</td>
<td>9 - 11 Determined as a 1% suspension in distilled water.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>2.56E(-11)</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>0.60 g/cm³ @ 25°C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>70.9 °C</td>
</tr>
<tr>
<td>Solubility (in water)</td>
<td>0.00061 g/l</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>This is a stable material.</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Will not occur.</td>
</tr>
<tr>
<td>(Conditions to avoid)</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Oral Toxicity</td>
<td>Male and Female Rat: LD50: &gt; 5,050 mg/kg</td>
</tr>
<tr>
<td>Acute Dermal Toxicity</td>
<td>Male and Female Rat: LD50: &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Acute Inhalation Toxicity</td>
<td>Male and Female Rat: LC50: 4-hr exposure to dust: &gt; 2.74 mg/l (actual)</td>
</tr>
<tr>
<td></td>
<td>Male and Female Rat: 1-hr exposure to dust (extrapolated from 4-hr LC50): &gt; 10.96 mg/l (actual)</td>
</tr>
<tr>
<td>Skin Irritation</td>
<td>Rabbit: Slight dermal irritant.</td>
</tr>
<tr>
<td>Eye Irritation</td>
<td>Rabbit: Mild irritation to the cornea and conjunctiva was observed with all irritation clearing within 7 days post-treatment.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>Guinea pig: Not a skin sensitizer.</td>
</tr>
<tr>
<td>Sub-Chronic Toxicity</td>
<td>In a 28-day dermal toxicity study in rats, trifloxystrobin was tolerated without local effects at doses up to and including the limit dose of 1000 mg/kg/day. Systemic</td>
</tr>
</tbody>
</table>
effects were observed in males at the limit dose and included increased organ weights (liver and kidney).

**Chronic Toxicity**
In chronic toxicity studies in mice and dogs, the major primary target organ appears to be the liver following dietary administration of trifloxystrobin. Liver effects were not seen in a chronic toxicity rat study with trifloxystrobin.

**Assessment Carcinogenicity**
Trifloxystrobin did not cause any treatment-related increase in general tumor incidence, any elevated incidence of rare tumors, or shortened time to the development of palpable or rapidly lethal tumors in an 18-month mouse and a 24-month rat study.

**ACGIH**
None

**NTP**
None

**IARC**

**OSHA**
None

**Reproductive & Developmental Toxicity**

**REPRODUCTION:** In a two generation reproduction study using rats, trifloxystrobin was not a primary reproductive toxicant.

**DEVELOPMENTAL TOXICITY:** In developmental toxicity studies using rats and rabbits, trifloxystrobin was not a primary developmental toxicant.

**Mutagenicity**
Trifloxystrobin has been tested for its potential to induce gene mutation and chromosomal changes in 5 different test systems. Taken collectively, these studies demonstrate trifloxystrobin is not genotoxic or mutagenic.

### SECTION 12. ECOLOGICAL INFORMATION

**Environmental Precautions**
This pesticide is toxic to fish and aquatic invertebrates. 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 washwater. Drift and runoff from treated areas may be hazardous to fish/aquatic organisms in adjacent sites.
Ground Water Advisory: Several trifloxystrobin degradates have properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**General Disposal Guidance**

Pesticide Disposal: Pesticide wastes may be toxic. 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**

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by 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 CLASSIFICATION:**
Not regulated for transportation

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

**SECTION 15. REGULATORY INFORMATION**

**RCRA STATUS:** If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

**EPA Registration No.**
264-777

**US Federal Regulations**

**TSCA list**
Diatomaceous Earth 61790-53-2

**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 Reporting**
Material Safety Data Sheet

FLINT Fungicide

CA Prop65
This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State right-to-know ingredients

Canadian Regulations
Canadian Domestic Substance List
None

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

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

SECTION 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Reason to Issue: Correct (remove) reference to crystalline silica in Section 3.

Approval Date: 03/30/2004

This information is provided in good faith but without express or implied warranty. Buyer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer AG. Bayer CropScience.