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

Product identifier
Trade name COMPASS® FUNGICIDE
Product code (UVP) 06351867
SDS Number 102000011560
EPA Registration No. 432-1371

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

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 1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200
Acute toxicity(Inhalation): Category 4
Skin sensitisation: Category 1B

Labelling in accordance with regulation HCS 29CFR §1910.1200

Signal word: Warning
Hazard statements
Harmful if inhaled.
May cause an allergic skin reaction.

Precautionary statements
Avoid breathing dust, mist, spray.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor/physician if you feel unwell.
IF ON SKIN: Wash with plenty of water/ soap.
If skin irritation or rash occurs: Get medical advice/ attention.
Specific treatment (see supplemental first aid instructions on this label).
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local regulation.

Hazard 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>Trifloxystrobin</td>
<td>141517-21-7</td>
<td>50.0</td>
</tr>
<tr>
<td>Sodium butylnaphthalenesulphonate</td>
<td>25638-17-9</td>
<td>4.0</td>
</tr>
<tr>
<td>Dibutyl naphthalenesulfonic acid, sodium salt</td>
<td>25417-20-3</td>
<td>1.0</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
To date no symptoms are known.
Indication of any immediate medical attention and special treatment needed

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
Dry chemical, Foam, Carbon dioxide (CO2), Water

Unsuitable
High volume water jet

Special hazards arising from the substance or mixture
In the event of fire the following may be released; Hydrogen cyanide (hydrocyanic acid), Hydrogen fluoride, Carbon monoxide (CO), Nitrogen oxides (NOx)

Advice for firefighters

Special protective equipment for firefighters
Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information

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

Flash point
Not applicable

Auto-ignition temperature
320 °C / 608 °F

Lower explosion limit
Not applicable

Upper explosion limit
Not applicable

Explosivity
No data available

Dust explosion class
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
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean floors and contaminated objects with plenty of water.
Additional advice

Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.

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

No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate 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.

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

Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Protect from freezing.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

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>Trifloxystrobin</td>
<td>141517-21-7</td>
<td>2.7 mg/m3 (SK-SEN)</td>
<td></td>
<td>OES BCS*</td>
</tr>
</tbody>
</table>

*OES BCS: Internal Bayer AG, Crop Science Division "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: Safety glasses with side-shields
Skin and body protection: Wear long-sleeved shirt and long pants and shoes plus socks. Coveralls
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**: brown
- **Physical State**: water-dispersible granules
- **Odor**: none
- **Odour Threshold**: No data available
- **pH**: 9 - 11 at 1% (23 °C) (Distilled water) dispersion in water
- **Vapor Pressure**: No data available
- **Vapor Density (Air = 1)**: No data available
- **Bulk density**: 0.43 - 0.51 g/cm³ (loose)
- **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**: 320 °C / 608 °F
- **Lower explosion limit**: Not applicable
- **Upper explosion limit**: Not applicable
- **Explosivity**: No data available
- **Dust explosion class**: 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: No data available
Incompatible materials: No data available
Hazardous decomposition products: No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Eye contact, Skin contact, Skin Absorption, Inhalation
Immediate Effects
Eye: May cause mild irritation to eyes.
Skin: May cause slight irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Harmful if absorbed through skin.

Information on toxicological effects
Acute oral toxicity: LD50 (Rat) > 5,050 mg/kg
Acute inhalation toxicity: LC50 (Rat) > 2.7 mg/l
Exposure time: 4 h
Determined in the form of dust.
Highest concentration tested
Acute dermal toxicity: LD50 (Rat) > 2,000 mg/kg
Skin corrosion/irritation: Slight irritation (Rabbit)
Serious eye damage/eye irritation: Mild eye irritation. (Rabbit)
Respiratory or skin sensitisation: Sensitising (Guinea pig)

Assessment STOT Specific target organ toxicity – repeated exposure
Trifloxystrobin did not cause specific target organ toxicity in experimental animal studies.
Assessment mutagenicity
Trifloxystrobin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment carcinogenicity**

Trifloxystrobin was not carcinogenic in lifetime feeding studies in rats and mice.

- **ACGIH**
  None.

- **NTP**
  None.

- **IARC**
  None.

- **OSHA**
  None.

**Assessment toxicity to reproduction**

Trifloxystrobin caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Trifloxystrobin is related to parental toxicity.

**Assessment developmental toxicity**

Trifloxystrobin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Trifloxystrobin are related to maternal toxicity.

**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**

<table>
<thead>
<tr>
<th>Toxicity to fish</th>
<th>LC50 (Oncorhynchus mykiss (rainbow trout)) 0.015 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exposure time: 96 h</td>
</tr>
<tr>
<td></td>
<td>The value mentioned relates to the active ingredient</td>
</tr>
<tr>
<td></td>
<td>Trifloxystrobin.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicity to aquatic invertebrates</th>
<th>EC50 (Daphnia magna (Water flea)) 0.016 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exposure time: 48 h</td>
</tr>
<tr>
<td></td>
<td>The value mentioned relates to the active</td>
</tr>
<tr>
<td></td>
<td>ingredient trifloxystrobin.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicity to aquatic plants</th>
<th>IC50 (Desmodesmus subspicatus (green algae)) 0.0053 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Growth rate; Exposure time: 72 h</td>
</tr>
<tr>
<td></td>
<td>The value mentioned relates to the active ingredient</td>
</tr>
<tr>
<td></td>
<td>Trifloxystrobin.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Biodegradability</th>
<th>Trifloxystrobin: Not rapidly biodegradable</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Koc</th>
<th>Trifloxystrobin: Koc: 2377</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Bioaccumulation</th>
<th>Trifloxystrobin: Bioconcentration factor (BCF) 431</th>
</tr>
</thead>
</table>
Does not bioaccumulate.

**Mobility in soil**  
Trifloxystrobin: Slightly 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.  
Do not apply when weather conditions favor runoff or drift.

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### SECTION 13: DISPOSAL CONSIDERATIONS

#### Waste treatment methods

**Product**  
Dispose in accordance with all local, state/provincial and federal regulations.  
Follow container label instructions for disposal of wastes generated during use in compliance with the product label.  
It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines.

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

**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.  
When and if this material is determined to be a waste, if discarded, this material will carry RCRA waste code(s) **NON-RCRA**.  
State and local laws may vary and must be considered.

---

### SECTION 14: TRANSPORT INFORMATION

**49CFR**  
Not dangerous goods / not hazardous material

**IMDG**

<table>
<thead>
<tr>
<th>UN number</th>
<th>3077</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>9</td>
</tr>
<tr>
<td>Packaging group</td>
<td>III</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>YES</td>
</tr>
<tr>
<td>Proper shipping name</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TRIFLOXYSTROBIN MIXTURE)</td>
</tr>
</tbody>
</table>

**IATA**

---
SAFETY DATA SHEET

COMPASS® FUNGICIDE

Version 3.0 / USA
102000011560

Revision Date: 07/20/2018
Print Date: 07/21/2018

UN number 3077
Class 9
Packaging group III
Environm. Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(TRIFLOXystrobin Mixture)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

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

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-1371
US Federal Regulations
TSCA list
Diatomaceous earth 61790-53-2
Sodium sulphate 7757-82-6
Sodium lignosulphonate 8061-51-6
Sodium butylnaphthalenesulphonate 25638-17-9
Dibutyl naphthalenesulfonic acid, sodium salt 25417-20-3
Urea, polymer with formaldehyde 9011-05-6

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
Not applicable.

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 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
Diatomaceous earth 61790-53-2 CA, MN, RI
Sodium dodecylbenzenesulfonate 25155-30-0 CA, CT, IL, NJ

EPA/FIFRA Information:
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:**
- Causes eye irritation.
- Harmful if absorbed through 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.

---

**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: 1
- Instability: 0
- Others: none


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

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

**Reason for Revision:** The following sections have been revised: Section 2: Hazards Identification. Section 3: Composition / Information on Ingredients. Section 8: Exposure Controls / Personal Protection. Section 11: Toxicological Information.

**Revision Date:** 07/20/2018

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are