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

Product identifier

Trade name: EXTERIS STRESSGARD
Product code (UVP): 81753938
SDS Number: 102000028296
PCP Registration No.: 32206

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
Skin sensitisation: Category 1B

Labelling in accordance with Part 3 of the Hazardous Products Regulations

Signal word: Warning

Hazard statements
May cause an allergic skin reaction.

Precautionary statements
Avoid breathing mist and spray.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.
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Revision Date: 06/30/2016
Print Date: 07/01/2016

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.

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>Fluopyram</td>
<td>658066-35-4</td>
<td>1.19</td>
</tr>
<tr>
<td>Trifloxystrobin</td>
<td>141517-21-7</td>
<td>1.19</td>
</tr>
<tr>
<td>iso-Tridecyl alcohol, ethoxylated, phosphated</td>
<td>73038-25-2</td>
<td>8.9</td>
</tr>
<tr>
<td>Alcohols, C12-16, ethoxylated (&gt;5-15 EO)</td>
<td>68551-12-2</td>
<td>2.2</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
No symptoms known or expected.

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

**Unsuitable** High volume water jet

Special hazards arising from the substance or mixture

Dangerous gases are evolved in the event of a fire.

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

> 93.3 °C

Auto-ignition temperature

420 °C / 788 °F

Lower explosion limit

No data available

Upper explosion limit

No data available

Explosivity

Not explosive

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

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
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. Protect from freezing. Keep away from direct sunlight.

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>Fluopyram</td>
<td>658066-35-4</td>
<td>0.34 mg/m3 (TWA)</td>
<td></td>
<td>OES BCS*</td>
</tr>
<tr>
<td>Trifloxystrobin</td>
<td>141517-21-7</td>
<td>2.7 mg/m3 (SK-SEN)</td>
<td></td>
<td>OES BCS*</td>
</tr>
<tr>
<td>1,2-Propanediol (Aerosol.)</td>
<td>57-55-6</td>
<td>10 mg/m3 (TWAEV)</td>
<td>11 2010</td>
<td>CAD ON OEL</td>
</tr>
<tr>
<td>1,2-Propanediol (Vapor and aerosol.)</td>
<td>57-55-6</td>
<td>155 mg/m3/50 ppm (TWAEV)</td>
<td>06 2015</td>
<td>CAD ON OEL</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 | Safety glasses with side-shields or 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>green</td>
</tr>
<tr>
<td>Physical State</td>
<td>suspension</td>
</tr>
<tr>
<td>Odor</td>
<td>characteristic</td>
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<tr>
<td>Odour Threshold</td>
<td>No data available</td>
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<tr>
<td>pH</td>
<td>6.0 at 100 % (23 °C)</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
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<tr>
<td>Density</td>
<td>1.05 g/cm³ at 20 °C</td>
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<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting / Freezing Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>dispersible</td>
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<tr>
<td>Minimum Ignition Energy</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>60 - 200 mPa×s at 20 °C Velocity gradient 20 /s 25 - 75 mPa×s at 20 °C Velocity gradient 100 /s</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 93.3 °C</td>
</tr>
<tr>
<td>Auto-Ignition temperature</td>
<td>420 °C / 788 °F</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosivity</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Other information</td>
<td>Further safety related physical-chemical data are not known.</td>
</tr>
</tbody>
</table>
SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition: Not applicable

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.

Conditions to avoid: Extremes of temperature and direct sunlight.

Incompatible materials: No data available

Hazardous decomposition products: No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Skin contact, Eye contact, Ingestion, Inhalation

Immediate Effects

Eye: Mild eye irritation.

Skin: May cause sensitisation by skin contact.

Information on toxicological effects

Acute oral toxicity: LD50 (Rat) > 5,000 mg/kg

Acute inhalation toxicity: LC50 (Rat) > 5.0 mg/l

Acute dermal toxicity: LD50 (Rat) > 5,000 mg/kg

Skin irritation: Slight irritation (Rabbit)

Eye irritation: Mild eye irritation. (Rabbit)

Sensitisation: Sensitising (Mouse)

OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment repeated dose toxicity

Fluopyram did not cause specific target organ toxicity in experimental animal studies.

Trifloxystrobin did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Fluopyram was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Trifloxystrobin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Fluopyram caused at high dose levels an increased incidence of tumours in rats in the following organ(s): Liver.
Fluopyram caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Thyroid.

The tumours seen with Fluopyram were caused through a non-genotoxic mechanism, which is not relevant at low doses. The mechanism that triggers these tumours is not relevant to humans.

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

**ACGIH**
None.

**NTP**
None.

**IARC**
None.

**OSHA**
None.

**Assessment toxicity to reproduction**

Fluopyram 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 Fluopyram is related to parental toxicity.

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**

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

Acute toxicity studies have been bridged from a similar formulation(s).

The non-acute information pertains to the active ingredient(s).

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**SECTION 12: ECOLOGICAL INFORMATION**

**Toxicity to fish**

LC50 (Oncorhynchus mykiss (rainbow trout)) 1.42 mg/l

Exposure time: 96 h

**Toxicity to aquatic invertebrates**

EC50 (Daphnia magna (Water flea)) 0.75 mg/l

Exposure time: 48 h

**Toxicity to aquatic plants**

EC50 (Raphidocelis subcapitata (freshwater green alga)) 5.25 mg/l

Growth rate; Exposure time: 72 h

**Biodegradability**

Fluopyram:

Not rapidly biodegradable

Trifloxystrobin:
Not rapidly biodegradable

**Koc**
- Fluopyram: Koc: 279
- Trifloxystrobin: Koc: 2377

**Bioaccumulation**
- Fluopyram: Bioconcentration factor (BCF) 18
  Does not bioaccumulate.
- Trifloxystrobin: Bioconcentration factor (BCF) 431
  Does not bioaccumulate.

**Mobility in soil**
- Fluopyram: Moderately mobile in soils
- Trifloxystrobin: Slightly mobile in soils

**Additional ecological information**
- No other effects to be mentioned.

**Environmental precautions**
- Do not allow to get into surface water, drains and ground water.
- Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.
- Do not apply when weather conditions favor runoff or drift.
- Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

---

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Product**
Dispose in accordance with all local, state/provincial and federal regulations.

**Contaminated packaging**
- Do not re-use empty containers.
- Triple rinse containers.
- Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities.
- If burned, stay out of smoke.

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**SECTION 14: TRANSPORT INFORMATION**

**TDG**
- UN number: 3082
- Labels: 9
- Packaging group: III
- Marine pollutant: Marine pollutant
- Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIFLOXYSTROBIN)

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

**IMDG**
- UN number: 3082
SAFETY DATA SHEET

EXTERIS STRESSGARD

Class 9
Packaging group III
Marine pollutant YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIFLOXYSTROBIN SOLUTION)

IATA
UN number 3082
Class 9
Packaging group III
Environn. Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIFLOXYSTROBIN SOLUTION)

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.

Further Information Exempt from regulation when transported by road or rail, in accordance with TDG Regulations 1.45.1. This exemption provides that this product does not require dangerous goods shipping documentation or safety marks when transported on land by road or rail.

SECTION 15: REGULATORY INFORMATION

PCP Registration No. 32206
US Federal Regulations None.
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 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 None.
SAFETY DATA SHEET

EXTERIS STRESSGARD

Version 2.0 / CDN
102000028296

Revision Date: 06/30/2016
Print Date: 07/01/2016

Canadian Regulations
Canadian Domestic Substance List
iso-Tridecyl alcohol, ethoxylated, phosphated 73038-25-2
Alcohols, C12-16, ethoxylated (>5-15 EO) 68551-12-2

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 US. IARC Monographs on Occupational Exposures to Chemical Agents
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 - 2 Flammability - 1 Instability - 0 Others - none

Health - 2 Flammability - 1 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 Canadian WHMIS standard (WHMIS 2015).

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.
Revision Date: 06/30/2016

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