

SAFETY DATA SHEET



EXTERIS® STRESSGARD®

Version 3.0 / USA
10200028297

1/12
Revision Date: 07/31/2020
Print Date: 06/17/2022

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

Product identifier

Trade name	EXTERIS® STRESSGARD®
Product code (UVP)	81701563
SDS Number	10200028297
EPA Registration No.	101563-157

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	Environmental Science U.S. LLC. 5000 Centregreen Way, Suite 400 Cary, NC 27513 USA

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days)	1-800-424-9300
Product Information Telephone Number	1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Skin sensitisation: Category 1B
Reproductive toxicity: Effects on or via lactation

Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Warning

Hazard statements

May cause an allergic skin reaction.

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|| May cause harm to breast-fed children.

Precautionary statements

|| Do not breathe dust or mist.
|| Contaminated work clothing should not be allowed out of the workplace.
|| Wear protective gloves.
|| Obtain special instructions before use.
|| Avoid contact during pregnancy/ while nursing.
|| Wash thoroughly after handling.
|| Do not eat, drink or smoke when using this product.
|| 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.
|| IF exposed or concerned: Get medical advice/ attention.
|| 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

Hazardous Component Name	CAS-No.	Concentration % by weight
Trifloxystrobin	141517-21-7	1.92
Fluopyram	658066-35-4	1.19
iso-Tridecyl alcohol, ethoxylated, phosphated	73038-25-2	8.9
Alcohols, C12-16, ethoxylated (>5-15 EO)	68551-12-2	2.2

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.

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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.

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

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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.

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**

Components	CAS-No.	Control parameters	Update	Basis
Trifloxystrobin	141517-21-7	2.7 mg/m ³ (SK-SEN)		OES BCS*

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Fluopyram	658066-35-4	0.34 mg/m ³ (TWA)		OES BCS*
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*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.
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

Information on basic physical and chemical properties

Form	suspension
Colour	green
Odour	characteristic
Odour Threshold	No data available
pH	6.0 (100 %) (23 °C)
Melting point/range	No data available
Boiling Point	No data available
Flash point	> 93.3 °C
Flammability	No data available
Auto-ignition temperature	420 °C
Minimum ignition energy	Not applicable
Self-accelerating decomposition temperature (SADT)	No data available
Upper explosion limit	No data available

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Lower explosion limit	No data available
Vapour pressure	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Relative density	No data available
Density	1.05 g/cm ³ (20 °C)
Water solubility	miscible
Partition coefficient: n-octanol/water	Fluopyram: log Pow: 3.3 Trifloxystrobin: log Pow: 4.5 (25 °C)
Viscosity, dynamic	60 - 200 mPa.s (20 °C) Velocity gradient 20 /s 25 - 75 mPa.s (20 °C) Velocity gradient 100 /s
Viscosity, kinematic	No data available
Oxidizing properties	No data available
Explosivity	Not explosive
Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	Stable under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid	Extremes of temperature and direct sunlight. freezing
Incompatible materials	No incompatible materials known.
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Ingestion, Eye contact, Skin contact, Inhalation
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Immediate Effects

Eye	Mild eye irritation.
Skin	May cause sensitisation by skin contact.
Ingestion	May be harmful if swallowed.
Inhalation	May be harmful if inhaled.

Information on toxicological effects

Acute oral toxicity	LD50 (female Rat) > 5,000 mg/kg
Acute inhalation toxicity	LC50 (male/female combined Rat) > 4.62 mg/l Highest attainable concentration. Determined in the form of a respirable aerosol.
Acute dermal toxicity	LD50 (male/female combined Rat) 5,000 mg/kg
Skin corrosion/irritation	Slight irritant effect - does not require labelling. (Rabbit)
Serious eye damage/eye irritation	Mild eye irritation. (Rabbit)
Respiratory or skin sensitisation	Skin: Sensitising (Mouse) OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment STOT Specific target organ toxicity – single exposure

Fluopyram: Based on available data, the classification criteria are not met.
Trifloxystrobin: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

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.

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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 reduced body weight development in offspring during lactation only at doses also producing systemic toxicity in adult rats.

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.

Aspiration hazard

Based on available data, the classification criteria are not met.

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)) 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

LC50 (Mysidopsis bahia (mysid shrimp)) 0.00862 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient trifloxystrobin.

Toxicity to aquatic plants EC50 (Raphidocelis subcapitata (freshwater green alga)) 5.25 mg/l
Growth rate; Exposure time: 72 h

EC10 (Desmodesmus subspicatus (green algae)) 0.0025 mg/l
Growth rate; Exposure time: 72 h
The value mentioned relates to the active ingredient trifloxystrobin.

Biodegradability Fluopyram:
Not rapidly biodegradable
Trifloxystrobin:
Not rapidly biodegradable

Koc Fluopyram: Koc: 279
Trifloxystrobin: Koc: 2377

Bioaccumulation Fluopyram: Bioconcentration factor (BCF) 18

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Does not bioaccumulate.
Trifloxystrobin: Bioconcentration factor (BCF) 431
Does not bioaccumulate.

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

Results of PBT and vPvB assessment

PBT and vPvB assessment
Fluopyram: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Trifloxystrobin: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Additional ecological information
No other effects to be mentioned.

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.
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.

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.

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

49CFR
Not dangerous goods / not hazardous material

IMDG
UN number **3082**
Class **9**
Packaging group **III**

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Marine pollutant YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(TRIFLOXYSTROBIN SOLUTION)

IATA

UN number 3082
Class 9
Packaging group III
Environm. 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.

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

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 101563-157

US Federal Regulations

TSCA list

Water 7732-18-5
iso-Tridecyl alcohol, ethoxylated,
phosphated 73038-25-2
1,2-Propanediol 57-55-6
C.I. Pigment Green 7 1328-53-6
Alcohols, C12-16, ethoxylated (>5-15 EO) 68551-12-2
Polyethylene-polypropylene copolymer 9003-11-6

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No export notification needs to be made.

SARA Title III - Section 302 - Notification and Information

Not applicable.

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

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1,2-Propanediol
C.I. Pigment Green 7

57-55-6
1328-53-6

MN, RI
CT, IL, MI, NJ

Environmental

CERCLA

Yes

C.I. Pigment Green 7 1328-53-6

Included in the regulation but with no data values. See regulation for further details

Clean Water Section 307(a)(1)

Yes

C.I. Pigment Green 7 1328-53-6

Safe Drinking Water Act Maximum Contaminant Levels

Yes

C.I. Pigment Green 7 1328-53-6

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: Harmful if swallowed.
Causes moderate eye irritation.
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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

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WHO World health organisation

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Instability - 0 Others - none

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

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: The following sections have been revised: Section 2: Hazards Identification. Section 8: Exposure Controls / Personal Protection. Section 11: Toxicological Information. Section 12. Ecological information. Reviewed and updated for general editorial purposes.

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