

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

SECTION 1. IDENTIFICATION

Product name : TARTAN STRESSGARD

Product code : Article/SKU: D00000998 UVP: 05810050 Specification: 102000013748 EPA Registration No: 101563-113

Manufacturer or supplier's details

Company name of supplier : Environmental Science U.S. LLC.

Address : 5000 Centregreen Way, Suite 400
Cary NC 27513

Telephone : 1-800-331-2867

Emergency telephone : +1 703-741-5970

E-mail address : uscontact@envu.com

Recommended use of the chemical and restrictions on use

Recommended use : Fungicide

Restrictions on use : See product label for restrictions.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity (Inhalation) : Category 4

Effects on or via lactation

GHS label elements

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : H332 Harmful if inhaled.
H362 May cause harm to breast-fed children.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.
P261 Avoid breathing vapors.
P263 Avoid contact during pregnancy and while nursing.
P264 Wash skin thoroughly after handling.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version 3.0 Revision Date: 11/06/2024 SDS Number: 11256444-00003 Date of last issue: 08/31/2023
Date of first issue: 08/14/2023

P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

Response:

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.

P308 + P313 IF exposed or concerned: Get medical attention.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Suspension concentrate (=flowable concentrate)(SC)

Components

Chemical name	CAS-No.	Concentration (% w/w)
Triadimefon	43121-43-3	≥ 20 - < 30
Glycerine	56-81-5	≥ 10 - < 20
Trifloxystrobin	141517-21-7	≥ 1 - < 5
Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	68425-94-5	≥ 1 - < 5
Silicon, amorphous	112945-52-5	≥ 1 - < 5
2-Methyl-2H-isothiazol-3-one	2682-20-4	≥ 0.0015 - < 0.1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.

When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.

If not breathing, give artificial respiration.

If breathing is difficult, give oxygen.

Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes.

Get medical attention.

Wash clothing before reuse.

Thoroughly clean shoes before reuse.

In case of eye contact : Flush eyes with water as a precaution.

Get medical attention if irritation develops and persists.

If swallowed : Get medical attention.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Most important symptoms and effects, both acute and delayed	: No symptoms known or expected. Harmful if inhaled. May cause harm to breast-fed children.
Protection of first-aiders	: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Notes to physician	: Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire fighting	: Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.
Hazardous combustion products	: Carbon oxides Chlorine compounds Nitrogen oxides (NOx) Fluorine compounds Sulfur oxides Metal oxides
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).
Environmental precautions	: Avoid release to the environment.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g., by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material.
For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling : Avoid contact during pregnancy and while nursing.
Do not get on skin or clothing.
Do not breathe vapors.
Do not swallow.
Avoid contact with eyes.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Do not eat, drink or smoke when using this product.
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage : Keep in properly labeled containers.
Keep tightly closed.
Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
Strong oxidizing agents
Gases

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version 3.0 Revision Date: 11/06/2024 SDS Number: 11256444-00003 Date of last issue: 08/31/2023
Date of first issue: 08/14/2023

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Silicon, amorphous	112945-52-5	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m ³ / %SiO ₂ (Silica)	OSHA Z-3
		TWA	6 mg/m ³ (Silica)	NIOSH REL

Engineering measures : Minimize workplace exposure concentrations.
If sufficient ventilation is unavailable, use with local exhaust ventilation.

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Material : Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
Safety glasses

Skin and body protection : Skin should be washed after contact.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: suspension, viscous
Color	: green
Odor	: slight
Odor Threshold	: No data available
pH	: 6.5 - 7.5 (73 °F / 23 °C) Concentration: 10 % (aqueous suspension)
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: 199.9 °F / 93.3 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Flammability (liquids)	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Density	: 1.15 g/cm ³ (68 °F / 20 °C)
Solubility(ies) Water solubility	: dispersible

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	
Viscosity, dynamic	:	600 - 950 mPa.s
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Particle characteristics	:	
Particle size	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Vapors may form explosive mixture with air. Can react with strong oxidizing agents.
Conditions to avoid	:	None known.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Harmful if inhaled.

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	LC50 (Rat): > 2.07 mg/l

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Exposure time: 4 h
Test atmosphere: dust/mist

Components:

Triadimefon:

Acute oral toxicity	:	LD50 (Rat, female): 1,090 mg/kg Method: OPPTS 870.1100
Acute inhalation toxicity	:	LC50 (Rat): > 3.27 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg

Glycerine:

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

Trifloxystrobin:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg

Alkyl-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg
-----------------------	---	------------------------------

Silicon, amorphous:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401 Remarks: Based on data from similar materials
Acute inhalation toxicity	:	LC50 (Rat): > 2.08 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity Remarks: Based on data from similar materials
Acute dermal toxicity	:	LD50 (Rabbit): > 5,000 mg/kg Remarks: Based on data from similar materials

2-Methyl-2H-isothiazol-3-one:

Acute oral toxicity	:	LD50 (Rat): 120 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 0.11 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rat): 242 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Not classified based on available information.

Components:

Glycerine:

Species : Rabbit
Result : No skin irritation

Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Result : Skin irritation

Silicon, amorphous:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
Remarks : Based on data from similar materials

2-Methyl-2H-isothiazol-3-one:

Result : Corrosive after 3 minutes to 1 hour of exposure

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Glycerine:

Species : Rabbit
Result : No eye irritation

Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Result : Irritation to eyes, reversing within 21 days

Silicon, amorphous:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405
Remarks : Based on data from similar materials

2-Methyl-2H-isothiazol-3-one:

Result : Irreversible effects on the eye

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitization.

Components:

Triadimefon:

Test Type	:	Magnusson-Kligman-Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OPPTS 870.2600
Result	:	positive

Assessment	:	Probability or evidence of skin sensitization in humans
------------	---	---

Trifloxystrobin:

Assessment	:	Probability or evidence of skin sensitization in humans
Remarks	:	Based on national or regional regulation.

2-Methyl-2H-isothiazol-3-one:

Routes of exposure	:	Skin contact
Result	:	positive

Assessment	:	Probability or evidence of high skin sensitization rate in humans
------------	---	---

Germ cell mutagenicity

Not classified based on available information.

Components:

Triadimefon:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OPPTS 870.5100 Result: negative
-----------------------	---	--

	:	Test Type: In vitro mammalian cell gene mutation test Result: negative
--	---	---

	:	Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro) Method: OPPTS 870.5550 Result: negative
--	---	---

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Result: negative

Glycerine:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative

Trifloxystrobin:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative

Silicon, amorphous:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

2-Methyl-2H-isothiazol-3-one:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Result: negative

Genotoxicity in vivo : Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 486
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Glycerine:

Species	: Rat
Application Route	: Ingestion
Exposure time	: 2 Years
Result	: negative

Trifloxystrobin:

Species	: Rat
Application Route	: Ingestion
Exposure time	: 24 Months
Result	: negative

Silicon, amorphous:

Species	: Rat
Application Route	: Ingestion
Exposure time	: 103 weeks
Result	: negative
Remarks	: Based on data from similar materials

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

May cause harm to breast-fed children.

Product:

Reproductive toxicity - Assessment	: No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.
------------------------------------	--

Components:

Triadimefon:

Reproductive toxicity - Assessment	: Clear evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments, Studies indicating a hazard to babies during the lactation peri-
------------------------------------	--

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

|| od

Glycerine:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

Trifloxystrobin:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rabbit
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

Reproductive toxicity - Assessment : Studies indicating a hazard to babies during the lactation period

Silicon, amorphous:

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

2-Methyl-2H-isothiazol-3-one:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Components:

Trifloxystrobin:

Assessment : No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Repeated dose toxicity

Components:

Triadimefon:

Species : Rat
NOAEL : ≥ 100 mg/kg
Application Route : Ingestion
Exposure time : 90 Days
Method : OPPTS 870.3100

Glycerine:

Species : Rat
NOAEL : 0.167 mg/l
LOAEL : 0.622 mg/l
Application Route : inhalation (dust/mist/fume)
Exposure time : 13 Weeks

Species : Rat
NOAEL : 8,000 - 10,000 mg/kg
Application Route : Ingestion
Exposure time : 2 y

Species : Rabbit
NOAEL : 5,040 mg/kg
Application Route : Skin contact
Exposure time : 45 Weeks

Trifloxystrobin:

Species : Rat
NOAEL : 10 mg/kg
Application Route : Ingestion
Exposure time : 2 y

Silicon, amorphous:

Species : Rat
NOAEL : 1.3 mg/l
Application Route : inhalation (dust/mist/fume)
Exposure time : 13 Weeks
Remarks : Based on data from similar materials

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Triadimefon:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 4.08 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 7.16 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: ErC50 (Pseudokirchneriella subcapitata (green algae)): 2.1 mg/l Exposure time: 120 h
Toxicity to fish (Chronic toxicity)	: NOEC (Danio rerio (zebra fish)): 0.125 mg/l Exposure time: 120 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: EC10 (Daphnia magna (Water flea)): > 0.6 mg/l Exposure time: 21 d

Glycerine:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 54,000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 1,955 mg/l Exposure time: 48 h
Toxicity to microorganisms	: NOEC (Pseudomonas putida): > 10,000 mg/l Exposure time: 16 h Method: DIN 38 412 Part 8

Trifloxystrobin:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 0.015 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Mysidopsis bahia (opossum shrimp)): 0.00862 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	: ErC50 (Desmodesmus subspicatus (green algae)): 0.0174 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

	EC10 (Desmodesmus subspicatus (green algae)): 0.0025 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	: EC10 (Oncorhynchus mykiss (rainbow trout)): 0.0075 mg/l Exposure time: 95 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: EC10 (Daphnia magna (Water flea)): 0.00328 mg/l Exposure time: 21 d

Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Ecotoxicology Assessment

Acute aquatic toxicity	: Toxic effects cannot be excluded
Chronic aquatic toxicity	: Toxic effects cannot be excluded

Silicon, amorphous:

Toxicity to fish	: LC50 (Danio rerio (zebra fish)): > 10,000 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 24 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	: EC50 (Desmodesmus subspicatus (green algae)): > 10,000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
	NOEC (Desmodesmus subspicatus (green algae)): 10,000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials

2-Methyl-2H-isothiazol-3-one:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 4.77 - 6 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 0.93 - 1.9 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: ErC50 (Skeletonema costatum (marine diatom)): 0.1 mg/l Exposure time: 72 h

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

ErC50 (Skeletonema costatum (marine diatom)): 0.0695 mg/l
Exposure time: 24 h

EC10 (Pseudokirchneriella subcapitata (green algae)): 0.024 mg/l
Exposure time: 24 h

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 2.1 mg/l
Exposure time: 33 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.04 mg/l
Exposure time: 21 d

Persistence and degradability

Components:

Glycerine:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 92 %
Exposure time: 30 d
Method: OECD Test Guideline 301D

Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: < 60 %
Exposure time: 28 d

2-Methyl-2H-isothiazol-3-one:

Biodegradability : Result: Not readily biodegradable.

Bioaccumulative potential

Components:

Triadimefon:

Partition coefficient: n-octanol/water : log Pow: 2.9

Glycerine:

Partition coefficient: n-octanol/water : log Pow: -1.75

Trifloxystrobin:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 431
Method: OECD Test Guideline 305

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

Partition coefficient: n-octanol/water : log Pow: 4.5
Method: OECD Test Guideline 107

2-Methyl-2H-isothiazol-3-one:

Partition coefficient: n-octanol/water : log Pow: -0.34

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : 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.
Do not dispose of waste into sewer.

Contaminated packaging : Follow advice on product label and/or leaflet.
Empty containers retain residue and can be dangerous.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Trifloxystrobin, 2-Methyl-2H-isothiazol-3-one)

Class : 9
Packing group : III
Labels : 9
Environmentally hazardous : no

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(Trifloxystrobin, 2-Methyl-2H-isothiazol-3-one)

Class : 9
Packing group : III
Labels : Miscellaneous
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

IMDG-Code

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Trifloxystrobin, 2-Methyl-2H-isothiazol-3-one)
Class	: 9
Packing group	: III
Labels	: 9
EmS Code	: F-A, S-F
Marine pollutant	: yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	: UN 3082
Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (Trifloxystrobin, 2-Methyl-2H-isothiazol-3-one)
Class	: 9
Packing group	: III
Labels	: CLASS 9
ERG Code	: 171
Marine pollutant	: yes(Trifloxystrobin, 2-Methyl-2H-isothiazol-3-one)
Remarks	: Above applies only to containers over 119 gallons or 450 liters.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards	: Acute toxicity (any route of exposure) Reproductive toxicity
-----------------------------	---

SARA 313	: The following components are subject to reporting levels established by SARA Title III, Section 313:
-----------------	--

Triadimefon	43121-43-3	>= 20 - < 30 %
-------------	------------	----------------

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

US State Regulations

Pennsylvania Right To Know

Water	7732-18-5
Triadimefon	43121-43-3
Glycerine	56-81-5
Non-hazardous	Not Assigned
C.I. Pigment Green 7	1328-53-6
Trifloxystrobin	141517-21-7

California Prop. 65

WARNING: This product can expose you to chemicals including Triadimefon, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

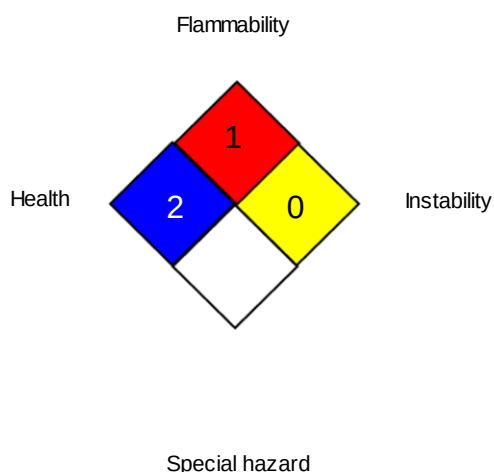
California Permissible Exposure Limits for Chemical Contaminants

Glycerine	56-81-5
Silicon, amorphous	112945-52-5
Active substance	: 280 g/l
Triadimefon	
	48 g/l
Trifloxystrobin	

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	/	4
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

NIOSH REL	: USA. NIOSH Recommended Exposure Limits
OSHA Z-3	: USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA Z-3 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Revision Date : 11/06/2024

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



TARTAN STRESSGARD

Version	Revision Date:	SDS Number:	Date of last issue: 08/31/2023
3.0	11/06/2024	11256444-00003	Date of first issue: 08/14/2023

intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8