

TERRAGUARD® SC

EPA Registration Number: 400-521-59807

1. PRODUCT AND COMPANY IDENTIFICATION

Product name TERRAGUARD® SC
EPA Registration No. 400-521-59807
Product form Mixture
Relevant identified uses of the substance or mixture and uses advised against
Recommended use Fungicide
Restrictions on use Agriculture, For professional users only.
Company information OHP, Inc.
 PO Box 746
 Bluffton, SC 29910-0746
 (800) 659-6745
Emergency telephone number
TRANSPORTATION EMERGENCY (24 hours a day) call Chemtrec: 1-800-424-9300
MEDICAL EMERGENCY (24 hours a day) and Product Information call 1-800-356-4647
SDS Information or Request ohp.com

Hazard statements (GHS-US)

H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H360 May damage fertility or the unborn child.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements (GHS-US):

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 Wash hands, forearms and face thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308+P313 If exposed or concerned: Get medical advice/attention.
 P312 Call a poison center/doctor/... if you feel unwell.
 P314 Get medical advice/attention if you feel unwell.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P391 Collect spillage.
 P405 Store locked up.
 P501 Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
GHS-US classification
Acute Tox. 4 (Inhalation:dust,mist) . . . H332
Eye Irrit. 2A H319
Repr. 1A H360
STOT RE 2 H373
Aquatic Acute 1 H400
Aquatic Chronic 1 H410
Full text of hazard classes and H-statements see section 16

Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal word (GHS-US) . . . : Danger

Other hazards

No additional information available

Unknown acute toxicity (GHS US)

2% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
 2% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
 3.4% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances: Not applicable

Mixtures

Name	Product identifier	% (w/w)	GHS-US classification
Triflumizole	(CAS-No.) 68694-11-1	42.14	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2B, H320 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Repr. 1A, H360 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Comb. Dust
Anionic/nonionic surfactant blend	(CAS-No.) trade secret	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319

* Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of H-statements . . .: see section 16

4. FIRST AID MEASURES

Description of first aid measures

First-aid measures

general: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

First-aid measures

after inhalation: Assure fresh air breathing. Allow the victim to rest. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

First-aid measures after

skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Destroy contaminated shoes.

First-aid measures after

eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

First-aid measures

after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Symptoms/effects

after inhalation: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

Symptoms/effects

after skin contact: May cause slight irritation.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing

media: Large fires: alcohol resistant foam. Small fires: Carbon dioxide. Dry chemical.

Unsuitable extinguishing

media: Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Fire hazard: Burning produces irritating, toxic and noxious fumes.

Reactivity: No dangerous reactions known.

Advice for firefighters

Firefighting instructions . . .: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during

firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General measures: Avoid all eye and skin contact and do not breathe vapour and mist. Ensure adequate ventilation. Use personal protective equipment as required.

For non-emergency personnel

Protective equipment: Refer to section 8.2.

Emergency procedures . . .: Evacuate unnecessary personnel.

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For emergency responders

Protective equipment : Refer to section 8.2.

Emergency procedures . . . : Ventilate area.

Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up . . . : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Reference to other sections

See Heading 8. Exposure controls and personal protection.

7. HANDLING AND STORAGE

Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Use only outdoors or in a well-ventilated area. Avoid contact with skin, eyes and clothing. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required.

Hygiene measures : Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place.

Specific end use(s)

No additional information available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

TERRAGUARD® SC	
ACGIH	Not applicable
OSHA	Not applicable
Triflumizole (68694-11-1)	
ACGIH	Not applicable
OSHA	Not applicable
Anionic/nonionic surfactant blend (trade secret)	
ACGIH	Not applicable
OSHA	Not applicable

Appropriate engineering

Appropriate engineering controls

: Avoid creating mist or spray. Avoid splashing. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use only outdoors or in a well-ventilated area.

Environmental exposure controls

: Prevent leakage or spillage. Prevent contaminated water run-off.

Individual protection measures/Personal protective equipment

Personal protective equipment

: Avoid all unnecessary exposure.

Hand protection

: Wear suitable gloves resistant to chemical penetration. Wear water impervious gloves.

Eye protection

: Chemical goggles or safety glasses. Safety glasses with side shields

Skin and body protection

: Long sleeved protective clothing. Foot protection. Rubber Apron. Wear impervious rubber safety shoes

Respiratory protection . . . : In case of inadequate ventilation wear respiratory protection. Appropriate dust or mist respirator should be used if airborne particles are generated when handling this material.

Other information : Do not eat, drink or smoke during use.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

- Physical state**: Liquid
- Appearance**: suspension.
- Colour**: Off-white tan
- Odour**: characteristic
- Odour threshold**: No data available
- pH**: 6.5 - 8.5
- Melting point**: No data available
- Freezing point**: No data available
- Boiling point**: No data available
- Flash point**: No data available
- Relative evaporation rate (butylacetate=1)**: No data available
- Flammability (solid, gas)**: No data available
- Explosive limits**: No data available
- Explosive properties**: No data available
- Oxidising properties**: No data available
- Vapour pressure**: No data available
- Relative density**: 1.116 - 1.162 @ 20 °C
- Relative vapour density at 20 °C**: No data available
- Solubility**: No data available
- Log Pow**: No data available
- Log Kow**: No data available
- Auto-ignition temperature**: No data available
- Decomposition temperature**: No data available
- Viscosity**: No data available
- Viscosity, kinematic**: No data available
- Viscosity, dynamic**: 300 - 600 cP
- Other information**
No additional information available

10. STABILITY AND REACTIVITY

- Reactivity**: No dangerous reactions known.
- Chemical stability**: Stable under normal conditions.

Possibility of hazardous reactions

.: Hazardous polymerization will not occur.

Conditions to avoid: None known.

Incompatible materials: None known.

Hazardous decomposition products: None known.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Likely routes of exposure

.: Inhalation; Skin and eye contact

Acute toxicity: Not classified

TERRAGUARD® SC	
ATE US (dust,mist)	3.56 mg/l/4h
Triflumizole (68694-11-1)	
LD50 oral rat	1420 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 3.2 mg/l/4h
ATE US (oral)	1420 mg/kg bodyweight
ATE US (gases)	4500 ppmv/4h
ATE US (vapours)	11 mg/l/4h
ATE US (dust,mist)	1.5 mg/l/4h

Skin corrosion/irritation: Not classified
(Slightly irritant but not relevant for classification)

Serious eye damage/irritation: Not classified. Causes serious eye irritation.
(Not irritating to rabbits on ocular application)

Respiratory or skin sensitisation: Not classified.
(No sensitizing reaction was observed for guinea pigs)

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: May damage fertility or the unborn child.

STOT-single exposure: Not classified

STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Not classified

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Symptoms/effects after

inhalation: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

Symptoms/effects after

skin contact: May cause slight irritation.

12. ECOLOGICAL INFORMATION

Toxicity

Ecology - water: Very toxic to aquatic life with long lasting effects.

Triflumizole (68694-11-1)	
LC50 fish 1	0.58 mg/l 96 h
EC50 Daphnia 1	1.42 mg/l 48 h
NOEC (chronic)	0.12 mg/l 24 d

Persistence and degradability

TERRAGUARD® SC	
Persistence and degradability	Not established.

Bioaccumulative potential

TERRAGUARD® SC	
Bioaccumulative potential	Not established.
Triflumizole (68694-11-1)	
Log Pow	1.4

Mobility in soil

Other adverse effects

Other information: Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste disposal

recommendations: Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste

materials: Avoid release to the environment.

14. TRANSPORT INFORMATION

Department of Transportation (DOT)

In accordance with DOT

Transport document

description: UN3082 Environmentally hazardous substances, liquid, n.o.s. (Triflumizole), 9, III

UN-No.(DOT).: UN3082

Proper Shipping

Name (DOT): Environmentally hazardous substances, liquid, n.o.s. Triflumizole

Transport hazard

class(es) (DOT).: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Packing group (DOT).: III - Minor Danger

Hazard labels (DOT).: 9 - Class 9 (Miscellaneous dangerous materials)



Dangerous for the

environment: Yes

Marine pollutant: Yes



Other information.: Non-bulk

(<= 119 gallons / 450 Liters) Not Regulated; Bulk (> 119 gallons / 450 Liters) Regulated as stated.

Transport by sea

IMDG

Transport hazard

class(es) (IMDG).: 9



Marine pollutant: Yes

UN-No. (IMDG): 3082

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Transport document

description (IMDG) UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triflumizole), 9, III, MARINE POLLUTANT

Class (IMDG) 9 - Miscellaneous dangerous substances and articles

Packing group (IMDG) III - substances presenting low danger

EmS-No. (Fire) F-A

EmS-No. (Spillage) S-F

Air transport

IATA

Transport hazard class(es) (IATA) 9



Marine pollutant Yes

UN-No. (IATA) 3082

Transport document

description (IATA) UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triflumizole), 9, III

Class (IATA) 9 - Miscellaneous Dangerous Goods

Packing group (IATA) III - Minor Danger

FIFRA Labelling	
EPA Registration Number	400-521
This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use..	
FIFRA Signal Word	Caution
FIFRA Human Health Hazards	Harmful if swallowed.
FIFRA First Aid	Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or the toilet.
FIFRA Environmental Hazards	This product is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate water when cleaning equipment or disposing of equipment washwater or rinsate. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.
FIFRA Physical Hazard	Do not use or store near heat or open flame.

15. REGULATORY INFORMATION

US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Triflumizole (68694-11-1)	
EPA TSCA Regulatory Flag	Exempt from TSCA : Pharmaceutical/drug substance

International regulations

CANADA

Triflumizole (68694-11-1)
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

US State regulations

No additional information available

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16. OTHER INFORMATION

Data sources : ACGIH (American Conference of Government Industrial Hygienists). European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. Manufacturer Information. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. OSHA 29CFR 1910.1200 Hazard Communication Standard. TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

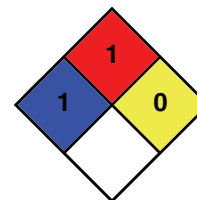
Other information : None.

Full text of H-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Comb. Dust	Combustible Dust
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation, Category 2B
Repr. 1A	Reproductive toxicity, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H320	Causes eye irritation
H332	Harmful if inhaled.
H360	May damage fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Abbreviations and acronyms:

	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	OSHA: Occupational Safety & Health Administration
	STEL: Short Term Exposure Limits
	TSCA: Toxic Substances Control Act
	TWA: Time Weighted Average



NFPA health hazard. : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Terraguard is a registered trademark of Arysta LifeScience Group Company

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