

# SAFETY DATA SHEET



## MIRAGE® STRESSGARD®

Version 2.0 / USA  
102000031480

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Revision Date: 01/21/2022  
Print Date: 06/17/2022

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

#### Product identifier

Trade name	MIRAGE® STRESSGARD®
Product code (UVP)	84962201
SDS Number	102000031480
EPA Registration No.	101563-152

#### 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  
Reproductive toxicity: Category 2

Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Warning

Hazard statements

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Suspected of damaging fertility or the unborn child.

### Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

IF exposed or concerned: Get medical advice/ attention.

Store locked up.

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
Tebuconazole	107534-96-3	21.4
Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts	68425-94-5	1.0

## 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	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. 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**

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<b>Treatment</b>	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.
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### SECTION 5: FIREFIGHTING MEASURES

#### Extinguishing media

<b>Suitable</b>	Water spray, Carbon dioxide (CO <sub>2</sub> ), Foam, Sand
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<b>Unsuitable</b>	High volume water jet
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<b>Special hazards arising from the substance or mixture</b>	Dangerous gases are evolved in the event of a fire.
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#### Advice for firefighters

<b>Special protective equipment for firefighters</b>	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
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<b>Further information</b>	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.
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<b>Flash point</b>	>93.3 °C / 199.94 °F
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<b>Auto-ignition temperature</b>	No data available
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<b>Lower explosion limit</b>	No data available
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<b>Upper explosion limit</b>	No data available
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<b>Explosivity</b>	Not applicable
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### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

<b>Precautions</b>	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
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#### Methods and materials for containment and cleaning up

<b>Methods for cleaning up</b>	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 contaminated floors and objects thoroughly, observing environmental regulations.
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<b>Additional advice</b>	Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.
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**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. 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.

**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
Tebuconazole	107534-96-3	0.2 mg/m <sup>3</sup> (SK-ABS)		OES BCS*

\*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 gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.

**Eye protection** Tightly fitting safety goggles

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<b>Skin and body protection</b>	Wear long-sleeved shirt and long pants and shoes plus socks.
<b>General protective measures</b>	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

<b>Form</b>	suspension
<b>Colour</b>	dark green
<b>Odor</b>	chalk-like
<b>pH</b>	ca. 9 (100 %)
<b>Melting point/range</b>	No data available
<b>Boiling Point</b>	No data available
<b>Flash point</b>	> 93.3 °C / 199.94 °F
<b>Flammability</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Minimum ignition energy</b>	No data available
<b>Self-accelarating decomposition temperature (SADT)</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Relative vapour density</b>	No data available
<b>Relative density</b>	No data available
<b>Density</b>	ca. 1.13 g/cm <sup>3</sup> (20 °C)
<b>Water solubility</b>	dispersible
<b>Partition coefficient: n-octanol/water</b>	Tebuconazole: log Pow: 3.7
<b>Viscosity, dynamic</b>	600 - 1,100 cps (25 °C)
<b>Viscosity, kinematic</b>	No data available
<b>Explosivity</b>	Not applicable

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### SECTION 10: STABILITY AND REACTIVITY

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

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### SECTION 11: TOXICOLOGICAL INFORMATION

<b>Exposure routes</b>	Ingestion, Inhalation, Skin Absorption, Eye contact
<b>Immediate Effects</b>	
<b>Eye</b>	May cause eye irritation.
<b>Skin</b>	Not expected to produce significant adverse effects when recommended use instructions are followed.
<b>Ingestion</b>	Not expected to produce significant adverse effects when recommended use instructions are followed.
<b>Inhalation</b>	Not expected to produce significant adverse effects when recommended use instructions are followed.
<b>Information on toxicological effects</b>	
<b>Acute oral toxicity</b>	LD50 (Rat) > 2,000 mg/kg
<b>Acute inhalation toxicity</b>	LC50 (Rat) > 2.5 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration. No deaths
<b>Acute dermal toxicity</b>	LD50 (Rat) > 2,000 mg/kg
<b>Skin corrosion/irritation</b>	No skin irritation (Rabbit) Not corrosive. (Human skin, 3D-in vitro model)
<b>Serious eye damage/eye irritation</b>	No eye irritation (Rabbit)  No eye irritation (Isolated chicken eyes)

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### Respiratory or skin sensitisation

Skin: Non-sensitizing. (Guinea pig)  
OECD Test Guideline 406, Buehler test

### Assessment STOT Specific target organ toxicity – single exposure

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

### Assessment STOT Specific target organ toxicity – repeated exposure

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

### Assessment mutagenicity

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

### Assessment carcinogenicity

Tebuconazole caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Liver. The mechanism of tumour formation is not considered to be relevant to man.

### ACGIH

None.

### NTP

None.

### IARC

None.

### Assessment toxicity to reproduction

Tebuconazole 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 Tebuconazole is related to parental toxicity.

### Assessment developmental toxicity

Tebuconazole caused developmental toxicity only at dose levels toxic to the dams. Tebuconazole caused an increased incidence of post implantation losses, an increased incidence of non-specific malformations.

### Aspiration hazard

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

### 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)) 4.4 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient tebuconazole.

### Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) 2.79 mg/l  
Exposure time: 48 h

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The value mentioned relates to the active ingredient tebuconazole.

### Chronic toxicity to aquatic invertebrates

NOEC (Daphnia (water flea)): 0.01 mg/l  
Exposure time: 21 d  
The value mentioned relates to the active ingredient tebuconazole.

### Toxicity to aquatic plants

EC50 (Raphidocelis subcapitata (freshwater green alga)) 3.8 mg/l  
Growth rate; Exposure time: 72 h  
The value mentioned relates to the active ingredient tebuconazole.

### Biodegradability

Tebuconazole:  
Not rapidly biodegradable

### Koc

Tebuconazole: Koc: 769

### Bioaccumulation

Tebuconazole: Bioconcentration factor (BCF) 35 - 59  
Does not bioaccumulate.

### Mobility in soil

Tebuconazole: Slightly mobile in soils

### Results of PBT and vPvB assessment

#### PBT and vPvB assessment

Tebuconazole: 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).

#### 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.  
Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

#### Product

Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.  
Dispose in accordance with all local, state/provincial and federal regulations.

#### Contaminated packaging

Do not re-use empty containers.  
Triple rinse containers.  
Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning.  
If burned, stay out of smoke.  
Follow advice on product label and/or leaflet.



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### 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.

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## SECTION 14: TRANSPORT INFORMATION

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

### IMDG

UN number	<b>3082</b>
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEBUCONAZOLE SOLUTION)

### IATA

UN number	<b>3082</b>
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEBUCONAZOLE 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

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## SECTION 15: REGULATORY INFORMATION

EPA Registration No. 101563-152

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### US Federal Regulations

#### TSCA list

Water	7732-18-5
Glycerine	56-81-5
Polychloro copper phthalocyanine	1328-53-6
Polyethylene-polypropylene copolymer	9003-11-6
Sodium lignosulphonate	8061-51-6
Alcohols, C16-18 and C18-unsatd., ethoxylated (15 - 20 EO)	68920-66-1
Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts	68425-94-5

#### 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

Glycerine	56-81-5	MN, RI
Polychloro copper phthalocyanine	1328-53-6	CT, IL, MI, NJ
Pyrogenic (fumed) amorphous silica	112945-52-5	CA, CT, MN

### Environmental

#### CERCLA

Yes

Polychloro copper phthalocyanine 1328-53-6

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

#### Clean Water Section 307(a)(1)

Yes

Polychloro copper phthalocyanine 1328-53-6

#### Safe Drinking Water Act Maximum Contaminant Levels

Yes

Tebuconazole 107534-96-3

Yes

Polychloro copper phthalocyanine 1328-53-6

### EPA/FIFRA Information:

This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification

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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, inhaled or absorbed through the skin.

### SECTION 16: OTHER INFORMATION

#### Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

#### NFPA 704 (National Fire Protection Association):

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

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

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

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

**Reason for Revision:** The following sections have been revised: Section 3: Composition / Information on Ingredients. Section 8: Exposure Controls / Personal Protection. Reviewed and updated for general editorial purposes.

**Revision Date:** 01/21/2022

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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