

# SAFETY DATA SHEET



## DELARO® 325 SC FUNGICIDE

Version 4.0 / USA  
102000010777

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Revision Date: 10/18/2022  
Print Date: 10/20/2022

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

#### Product identifier

**Trade name** DELARO® 325 SC FUNGICIDE  
**Product code (UVP)** 05907454, 81684685  
**SDS Number** 102000010777  
**EPA Registration No.** 264-1055

#### Relevant identified uses of the substance or mixture and uses advised against

**Use** Fungicide  
**Restrictions on use** See product label for restrictions.  
**Information on supplier**  
**Supplier** Bayer CropScience LP  
800 North Lindbergh Blvd.  
St. Louis, MO 63167  
USA  
**Responsible Department** Email: SDSINFO.BCS-NA@bayer.com

#### Emergency telephone no.

**Emergency Telephone Number (24hr/ 7 days)** 1-800-334-7577  
**Product Information Telephone Number** 1-866-99BAYER (1-866-992-2937)

### SECTION 2: HAZARDS IDENTIFICATION

#### Classification in accordance with regulation HCS 29CFR §1910.1200

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

#### Labelling in accordance with regulation HCS 29CFR §1910.1200



**Signal word:** Warning

**Hazard statements**

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May cause an allergic skin reaction.  
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	13.7
Prothioconazole	178928-70-6	16.0
Fatty alcohol polyglycol ether	61791-13-7	7.5

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

<b>General advice</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Inhalation</b>	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.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Rinse out mouth and give water in small sips to drink. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

### Most important symptoms and effects, both acute and delayed

**Symptoms** To date no symptoms are known.

### 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** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable** High volume water jet

**Special hazards arising from the substance or mixture** In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid), Hydrogen fluoride, Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Sulphur oxides, Nitrogen oxides (NO<sub>x</sub>)

### 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.

### Specific hazards from the substance or mixture which can increase the fire

**Flash point** >100 °C / 212 °F  
No flash point - Determination conducted up to the boiling point.

**Auto-ignition temperature** 385 °C / 725 °F

**Lower explosion limit** No data available

**Upper explosion limit** No data available

**Explosivity** Not explosive  
92/69/EEC, A.14 / OECD 113

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### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

**Precautions** Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

#### Methods and materials for containment and cleaning up

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**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. 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 original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. 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 <sup>3</sup> (SK-SEN)		OES BCS*
Prothioconazole	178928-70-6	1.4 mg/m <sup>3</sup>		OES BCS*

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		(SK-ABS)		
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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.

<b>Respiratory protection</b>	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.
<b>Hand protection</b>	Chemical resistant nitrile rubber gloves
<b>Eye protection</b>	Safety glasses with side-shields
<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>	white to beige
<b>Odour</b>	weak, characteristic
<b>Odour Threshold</b>	No data available
<b>pH</b>	5.0 - 7.0 (100 %) (23 °C)
<b>Melting point/range</b>	No data available
<b>Boiling Point</b>	No data available
<b>Flash point</b>	> 100 °C / 212 °F No flash point - Determination conducted up to the boiling point.
<b>Flammability</b>	No data available
<b>Auto-ignition temperature</b>	385 °C / 725 °F
<b>Thermal decomposition</b>	No data available
<b>Minimum ignition energy</b>	No data available
<b>Self-accelerating decomposition temperature (SADT)</b>	No data available

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<b>Upper explosion limit</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Vapour 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. 1.10 g/cm <sup>3</sup> (20 °C)
<b>Water solubility</b>	dispersible
<b>Partition coefficient: n-octanol/water</b>	Trifloxystrobin: log Pow: 4.5 (25 °C) Prothioconazole: log Pow: 3.82 (20 °C) (pH 7)
<b>Viscosity, dynamic</b>	350 - 550 mPa.s (20 °C) Velocity gradient 20 /s 150 - 250 mPa.s (20 °C) Velocity gradient 100 /s
<b>  Viscosity, kinematic</b>	407 mm <sup>2</sup> /s (20 °C) Shear rate of 20/sec 177 mm <sup>2</sup> /s (20 °C) Shear rate of 100/sec 374 mm <sup>2</sup> /s (40 °C) Shear rate of 20/sec 174 mm <sup>2</sup> /s (40 °C) Shear rate of 100/sec
<b>  Surface tension</b>	34 mN/m (25 °C)
<b>  Oxidizing properties</b>	No oxidizing properties
<b>Explosivity</b>	Not explosive 92/69/EEC, A.14 / OECD 113
<b>Other information</b>	Further safety related physical-chemical data are not known.

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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.

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<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>	Eye contact, Skin contact, Inhalation
<b>Immediate Effects</b>	
<b>Eye</b>	May cause temporary eye irritation.
<b>Skin</b>	May be harmful in contact with skin. May cause sensitisation by skin contact.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Inhalation</b>	May be harmful if inhaled.
<b>Information on toxicological effects</b>	
<b>Acute oral toxicity</b>	LD50 cut-off (Rat) $\geq$ 5,000 mg/kg
<b>Acute inhalation toxicity</b>	LC50 (Rat) > 2.189 mg/l Exposure time: 4 h Highest attainable concentration.
<b>Acute dermal toxicity</b>	LD50 (Rat) > 4,000 mg/kg
<b>Skin corrosion/irritation</b>	No skin irritation (Rabbit)
<b>Serious eye damage/eye irritation</b>	slight irritation (Rabbit)
<b>Respiratory or skin sensitisation</b>	Skin: Sensitising (Guinea pig) OECD Test Guideline 406, Magnusson & Kligman test

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

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

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

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

#### Assessment mutagenicity

Trifloxystrobin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.  
Prothioconazole was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

#### Assessment carcinogenicity

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

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

### ACGIH

None.

### NTP

None.

### IARC

None.

### Assessment toxicity to reproduction

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

Prothioconazole 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 Prothioconazole is related to parental toxicity.

### Assessment developmental toxicity

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

Prothioconazole caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Prothioconazole 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).

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## SECTION 12: ECOLOGICAL INFORMATION

**Toxicity to fish** LC50 (Oncorhynchus mykiss (rainbow trout)) 0.125 mg/l  
Exposure time: 96 h

**Toxicity to aquatic invertebrates** EC50 (Daphnia magna (Water flea)) 0.038 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** ErC50 (Raphidocelis subcapitata (freshwater green alga)) 0.072 mg/l  
Growth rate; Exposure time: 72 h

ErC50 (Skeletonema costatum) 0.03278 mg/l  
Exposure time: 72 h



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	<p>The value mentioned relates to the active ingredient prothioconazole. EC10 (Skeletonema costatum) 0.01427 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient prothioconazole. EC10 (Desmodesmus subspicatus (green algae)) 0.0025 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient trifloxystrobin.</p>
<b>Biodegradability</b>	<p>Trifloxystrobin: Not rapidly biodegradable Prothioconazole: Not rapidly biodegradable</p>
<b>Koc</b>	<p>Trifloxystrobin: Koc: 2377 Prothioconazole: Koc: 1765</p>
<b>Bioaccumulation</b>	<p>Trifloxystrobin: Bioconcentration factor (BCF) 431 Does not bioaccumulate. Prothioconazole: Bioconcentration factor (BCF) 19 Does not bioaccumulate.</p>
<b>Mobility in soil</b>	<p>Trifloxystrobin: Slightly mobile in soils Prothioconazole: Slightly mobile in soils</p>
<b>Results of PBT and vPvB assessment</b>	
<b>PBT and vPvB assessment</b>	<p>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). Prothioconazole: 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).</p>
<b>Additional ecological information</b>	<p>No other effects to be mentioned.</p>
<b>Environmental precautions</b>	<p>Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not allow product to enter streams, sewers or other waterways. 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.</p>

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## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Product** Do not contaminate water, food, or feed by disposal.  
Dispose in accordance with all local, state/provincial and federal regulations.

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	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. Follow advice on product label and/or leaflet.
<b>Contaminated packaging</b>	Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet.
<b>RCRA Information</b>	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

<b>49CFR</b>	Not dangerous goods / not hazardous material
<b>IMDG</b>	
UN number	<b>3082</b>
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIFLOXYSTROBIN, PROTHIOCONAZOLE SOLUTION)
<b>IATA</b>	
UN number	<b>3082</b>
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIFLOXYSTROBIN, PROTHIOCONAZOLE 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.

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### SECTION 15: REGULATORY INFORMATION

**EPA Registration No.** 264-1055

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### US Federal Regulations

#### TSCA list

Water	7732-18-5
1,2-Propanediol	57-55-6
Alcohols, coco, ethoxylated (>2EO)	61791-13-7
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

1,2-Propanediol	57-55-6	MN, RI
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### Environmental

#### CERCLA

None.

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

None.

#### Safe Drinking Water Act Maximum Contaminant Levels

None.

### 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 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:** Causes moderate eye irritation.  
Harmful if swallowed, inhaled or absorbed through the skin.  
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## SECTION 16: OTHER INFORMATION

### Abbreviations and acronyms

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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 - 2      Flammability - 1      Instability - 0      Others - none

### HMIS (Hazardous Materials Identification System, based on the Fourth 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,  
\* = chronic health hazard

**Reason for Revision:** The following sections have been revised: Section 9: Physical and Chemical Properties. Section 15: Regulatory information.

**Revision Date:** 10/18/2022

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

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