

STRATEGO® YLD FUNGICIDE

Version 2.0 / USA Revision Date: 03/20/2014 102000020519 Print Date: 03/16/2015

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

Product identifier

Trade name STRATEGO® YLD FUNGICIDE

Product code (UVP) 79463820

SDS Number 102000020519

EPA Registration No. 264-1093

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

Use Fungicide

Restrictions on use See product label for restrictions.

Information on manufacturer

Bayer CropScience 2 T.W. Alexander Drive

Research Triangle PK, NC 27709

United States

1-800-334-7577

Emergency Telephone

Number (24hr/ 7 days)

Product Information Telephone Number

1-866-99BAYER (1-866-992-2937)

SDS Information or Request SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Acute toxicity (Inhalation): Category 4



Signal word: Warning

Hazard statements

Harmful if inhaled.

Precautionary statements

Avoid breathing mist or vapours.

Use only outdoors or in a well-ventilated area.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

Call a POISON CENTER or doctor/ physician if you feel unwell.



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Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

 Hazardous Component Name
 CAS-No.
 Average % by Weight

 Trifloxystrobin
 141517-21-7
 32.30

 Prothioconazole
 178928-70-6
 10.80

 1,2-Propanediol
 57-55-6
 10.00

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice When possible, have the product container or label with you when

calling a poison control center or doctor or going for treatment.

Inhalation Move to fresh air. If person is not breathing, call 911 or an ambulance,

then give artificial respiration, preferably mouth-to-mouth if possible.

Call a physician or poison control center immediately.

Skin contact Take off contaminated clothing and shoes immediately. Wash off

immediately with plenty of water for at least 15 minutes. Call a

physician or poison control center immediately.

Eye contact Hold eye open and rinse slowly and gently with water for 15-20

minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center

immediately.

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 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. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Water spray, Carbon dioxide (CO2), Foam, Sand

Unsuitable None known.



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Special hazards arising from the substance or

mixture

Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective

In the event of fire and/or explosion do not breathe fumes. Firefighters equipment for fire-fighters should wear NIOSH approved self-contained breathing apparatus and

full protective clothing.

Further information Keep out of smoke. Fight fire from upwind position. Cool closed

containers exposed to fire with water spray. Do not allow run-off from

fire fighting to enter drains or water courses.

Flash point no data available

Autoignition temperature no data available Lower explosion limit no data available **Upper explosion limit** no data available **Explosivity** not applicable

Dust explosion class Not applicable.

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid Methods for cleaning up

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. 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



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Advice on safe handling Maintain exposure levels below the exposure limit through the use of

general and local exhaust ventilation. Handle and open container in a

manner as to prevent spillage.

Hygiene measures Wash hands thoroughly with soap and water after handling and before

eating, drinking, chewing gum, using tobacco, using the toilet or

applying cosmetics.

Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before

using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children,

preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Trifloxystrobin	141517-21-7	2.7 mg/m3 (TWA)		OES BCS*
Prothioconazole	178928-70-6	1.4 mg/m3 (TWA)		OES BCS*
Prothioconazole	178928-70-6	50ug/m3 (ST ESL)	07 2011	TX ESL
Prothioconazole	178928-70-6	5ug/m3 (AN ESL)	07 2011	TX ESL
1,2-Propanediol (Aerosol.)	57-55-6	10 mg/m3 (TWA)	2010	WEEL
1,2-Propanediol	57-55-6	1000ug/m3 (ST ESL)	03 2012	TX ESL
1,2-Propanediol	57-55-6	50ug/m3 (ST ESL)	03 2012	TX ESL
1,2-Propanediol	57-55-6	100ug/m3 (AN ESL)	03 2012	TX ESL
1,2-Propanediol	57-55-6	50ppb (AN ESL)	03 2012	TX ESL
1,2-Propanediol	57-55-6	500ppb (ST ESL)	03 2012	TX ESL
1,2-Propanediol	57-55-6	5ug/m3 (AN ESL)	03 2012	TX ESL

^{*}OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Exposure controls



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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.

Chemical resistant nitrile rubber gloves Hand protection

Tightly fitting safety goggles Eye protection

Wear long-sleeved shirt and long pants and shoes plus socks. Skin and body protection

General protective measures Follow manufacturer's instructions for cleaning/maintaining PPE. If

no such instructions for washables, use detergent and warm/tepid

water.

Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance white to light beige **Physical State** liquid suspension Odor characteristic

Odour Threshold no data available

6.5 - 7.5 at 10 % (25 °C) pН

aqueous suspension

Vapor Pressure no data available Vapor Density (Air = 1) no data available

ca. 1.16 g/cm3 at 20 °C **Density**

Evapouration rate no data available **Boiling Point** no data available **Melting / Freezing Point** no data available Water solubility no data available **Minimum Ignition Energy** not applicable

Decomposition temperature

not applicable

Partition coefficient: n-

octanol/water

no data available

Viscosity 250 - 450 mPa.s at 20 °C Velocity gradient 20 /s

Flash point no data available

Autoignition temperature no data available



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Lower explosion limitno data availableUpper explosion limitno data availableExplosivitynot applicableDust explosion classNot applicable.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition not applicable

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid no data available

Incompatible materials no data available

Hazardous decomposition

products

No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Eye contact, Skin Absorption, Inhalation, Ingestion

Immediate Effects

Eye Moderate eye irritation.

Skin Harmful if absorbed through skin.

IngestionHarmful if swallowed.InhalationHarmful if inhaled.

Information on toxicological effects

Acute oral toxicity LD50 (female rat) > 5,000 mg/kg

Acute inhalation toxicity LC50 (rat) > 2.6 mg/l

Exposure time: 4 h

Determined in the form of liquid aerosol.

LC50 (rat) > 10.4 mg/l Exposure time: 1 h

Determined in the form of liquid aerosol.

Extrapolated from the 4 hr LC50.

Acute dermal toxicity LD50 (rat) > 5,000 mg/kg

Skin irritation Slight irritation (rabbit)

Eye irritation Mild eye irritation. (rabbit)



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Sensitisation Non-sensitizing. (guinea pig)

Assessment repeated dose toxicity

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

ACGIH	
None.	
NTP	
None.	
IARC	
None.	
OSHA	

Assessment toxicity to reproduction

Trifloxystrobin 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 Trifloxystrobin is related to parental toxicity.

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.

Further information

None.

Only acute toxicity studies have been performed on the formulated product.

The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Exposure time: 96 h



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The value mentioned relates to the active ingredient trifloxystrobin.

LC50 (Rainbow trout (Oncorhynchus mykiss)) 1.83 mg/l

Exposure time: 96 h

The value mentioned relates to the active ingredient prothioconazole.

Toxicity to aquatic invertebrates

EC50 (Water flea (Daphnia magna)) 0.016 mg/l

Exposure time: 48 h

The value mentioned relates to the active ingredient trifloxystrobin.

EC50 (Water flea (Daphnia magna)) 1.3 mg/l

Exposure time: 48 h

The value mentioned relates to the active ingredient prothioconazole.

Toxicity to aquatic plants IC50 (Desmodesmus subspicatus) 0.0053 mg/l

Growth rate; Exposure time: 72 h

The value mentioned relates to the active ingredient trifloxystrobin.

IC50 (Pseudokirchneriella subcapitata) 2.18 mg/l

Growth rate; Exposure time: 72 h

The value mentioned relates to the active ingredient prothioconazole.

Biodegradability Trifloxystrobin: ; not rapidly biodegradable

Prothioconazole: ; not rapidly biodegradable

Koc Trifloxystrobin: Koc: 2377

Prothioconazole: Koc: 1765; log Koc: < 3

Bioaccumulation Trifloxystrobin: Bioconcentration factor (BCF) 431; Does not

bioaccumulate.

Prothioconazole: Bioconcentration factor (BCF) 19; Does not

bioaccumulate.

Mobility in soil Trifloxystrobin: Slightly mobile in soils

Prothioconazole: Slightly mobile in soils

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 allow to get into surface water, drains and ground water.

Do not contaminate surface or ground water by cleaning equipment or

disposal of wastes, including equipment wash water.

Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Do not contaminate water, food, or feed by disposal.

Dispose in accordance with all local, state/provincial and federal

regulations.

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.



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Contaminated packaging Triple rinse containers.

Then offer for recycling or reconditioning or puncture and dispose of in a

sanitary landfill or incineration, or if allowed by State and Local

authorities, by burning. If burned, stay out of smoke.

Follow advice on product label and/or leaflet.

RCRA Information Characterization and proper disposal of this material as a special or

hazardous waste is dependent upon Federal, State and local laws and

are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR Not dangerous goods / not hazardous material

IMDG

3082 **UN** number Class 9 Packaging group Ш Marine pollutant YES

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(TRIFLOXYSTROBIN, PROTHIOCONAZOLE SOLUTION)

IATA

UN number 3082 Class 9 Packaging group Ш 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.

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

POISON

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 264-1093

US Federal Regulations

TSCA list

1.2-Propanediol 57-55-6

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

None.



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SARA Title III - Section 302 - Notification and Information

None

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

Canadian Regulations
Canadian Domestic Substance List

1,2-Propanediol 57-55-6

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

1,2-Propanediol 57-55-6

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

Hazard statements: Harmful if swallowed, inhaled or absorbed through the skin.

Moderate eye irritation.

Avoid inhalation of vapour or mist.

Avoid contact with skin, eyes and clothing.

Wash thoroughly with soap and water after handling.

SECTION 16: OTHER INFORMATION



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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: Revised according to the current OSHA Hazard Communication Standard

(29CFR1910.1200)

Revision Date: 03/20/2014

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