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# **ADAMENT® 50 WG FUNGICIDE**

Version 2.1 / USA Revision Date: 03/14/2024 102000014008 Print Date: 03/15/2024

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

**Product identifier** 

Trade name ADAMENT® 50 WG FUNGICIDE

Product code (UVP) 79255896

**SDS Number** 102000014008

**EPA Registration No.** 264-1052

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

Reproductive toxicity: Category 2

Reproductive toxicity: Effects on or via lactation

Acute toxicity(Inhalation): Category 4

Labelling in accordance with regulation HCS 29CFR §1910.1200





Signal word: Warning



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#### **Hazard statements**

Suspected of damaging fertility or the unborn child.

May cause harm to breast-fed children.

Harmful if inhaled.

## **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.

Do not breathe dust or mist.

Avoid contact during pregnancy/ while nursing.

Wash hands thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

IF exposed or concerned: Get medical advice/ attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

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	25.0
Trifloxystrobin	141517-21-7	25.0
Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt	68425-94-5	9.0
Citric acid	77-92-9	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.



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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.

## **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), Carbon monoxide (CO), Nitrogen oxides (NOx)

Advice for firefighters

Special protective

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

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 Not applicable Auto-ignition temperature No data available Lower explosion limit No data available **Upper explosion limit** No data available **Explosivity** No data available



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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**Avoid dust formation. Sweep up or vacuum up spillage and collect in

suitable container for disposal. 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 Avoid dust formation. 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. 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



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Tebuconazole	107534-96-3	0.2 mg/m3 (SK-ABS)	OES BCS	*
Trifloxystrobin	141517-21-7	2.7 mg/m3 (SK-SEN)	OES BCS	*

<sup>\*</sup>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 (barrier laminate, butyl rubber, nitrile

rubber or Viton)

**Eye protection** Tightly fitting safety goggles

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

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**

## Information on basic physical and chemical properties

**Form** water-dispersible granules

Colour tan

**Odour** characteristic

Odour Threshold No data available pH 5.3 - 5.7 (10 %)

Melting point/range No data available

**Boiling Point** 

Thermal decomposition

Not applicable

No data available

Flash point Not applicable
Flammability No data available
Auto-ignition temperature No data available

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Minimum ignition energy No data available



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No data available

Self-accelarating

decomposition temperature

(SADT)

**Upper explosion limit** No data available Lower explosion limit No data available Vapour pressure No data available **Evaporation rate** Not applicable Relative vapour density No data available Relative density No data available **Density** No data available

**Bulk density** 0.432 - 0.513 g/ml (loose)

Water solubility No data available

Partition coefficient: n-

octanol/water

Tebuconazole: log Pow: 3.7

Trifloxystrobin: log Pow: 4.5 (25 °C)

Viscosity, dynamic No data available Viscosity, kinematic No data available Oxidizing properties No data available **Explosivity** No data available

Other information Further safety related physical-chemical data are not known.

## **SECTION 10: STABILITY AND REACTIVITY**

Reactivity Stable under normal conditions.

**Chemical stability** Stable under recommended storage conditions.

Possibility of hazardous

reactions

No hazardous reactions when stored and handled according to

prescribed instructions.

Conditions to avoid Extremes of temperature and direct sunlight.

Incompatible materials Oxidizing agents, Acids

**Hazardous decomposition** 

products

No decomposition products expected under normal conditions of use.



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#### **SECTION 11: TOXICOLOGICAL INFORMATION**

**Exposure routes** Ingestion, Inhalation, Eye contact, Skin contact

**Immediate Effects** 

Eye May cause temporary eye irritation.

Skin May be harmful in contact with skin.

**Ingestion** May be harmful if swallowed.

Inhalation Harmful if inhaled.

Information on toxicological effects

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

Acute inhalation toxicity LC50 (Rat) > 2.03 mg/l

Exposure time: 4 h

Determined in the form of dust. highest concentration tested

No deaths

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

**Skin corrosion/irritation** slight irritation (Rabbit)

Serious eye damage/eye

irritation

Mild eye irritation. (Rabbit)

Respiratory or skin

sensitisation

Skin: Non-sensitizing. (Guinea pig)

## Assessment STOT Specific target organ toxicity - single exposure

Tebuconazole: Based on available data, the classification criteria are not met. Trifloxystrobin: 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. Trifloxystrobin 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. Trifloxystrobin 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. Trifloxystrobin was not carcinogenic in lifetime feeding studies in rats and mice.

## **ACGIH**

None.

## NTP

None.



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## **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.

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

## 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.

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

No further toxicological information is available.

#### **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.

LC50 (Oncorhynchus mykiss (rainbow trout)) 0.015 mg/l

Exposure time: 96 h

The value mentioned relates to the active ingredient trifloxystrobin.

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) 2.79 mg/l

Exposure time: 48 h

The value mentioned relates to the active ingredient tebuconazole.

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

Exposure time: 48 h

The value mentioned relates to the active ingredient trifloxystrobin.

LC50 (Mysidopsis bahia (mysid shrimp)) 0.00862 mg/l

Exposure time: 96 h

The value mentioned relates to the active ingredient trifloxystrobin.

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.



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Growth rate; Exposure time: 72 h

The value mentioned relates to the active ingredient tebuconazole.

EC50 (Lemna gibba (gibbous duckweed)) 0.237 mg/l

Growth rate; Exposure time: 7 d

The value mentioned relates to the active ingredient tebuconazole.

IC50 (Desmodesmus subspicatus (green algae)) 0.0053 mg/l

Growth rate; Exposure time: 72 h

The value mentioned relates to the active ingredient trifloxystrobin.

EC10 (Desmodesmus subspicatus (green algae)) 0.0025 mg/l

Growth rate; Exposure time: 72 h

The value mentioned relates to the active ingredient trifloxystrobin.

Biodegradability Tebuconazole:

Not rapidly biodegradable

Trifloxystrobin:

Not rapidly biodegradable

**Koc** Tebuconazole: Koc: 769

Trifloxystrobin: Koc: 2377

**Bioaccumulation** Tebuconazole: Bioconcentration factor (BCF) 35 - 59

Does not bioaccumulate.

Trifloxystrobin: Bioconcentration factor (BCF) 431

Does not bioaccumulate.

**Mobility in soil** Tebuconazole: Slightly mobile in soils

Trifloxystrobin: 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).

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).

**Environmental precautions** 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.

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

Waste treatment methods

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

regulations.



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Contaminated packaging Consult state and local regulations regarding the proper disposal of

container.

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** 

UN number 3077
Class 9
Packaging group III
Marine pollutant YES

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(TEBUCONAZOLE, TRIFLOXYSTROBIN MIXTURE)

**IATA** 

UN number 3077
Class 9
Packaging group III
Environm. Hazardous Mark YES

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(TEBUCONAZOLE, TRIFLOXYSTROBIN MIXTURE)

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 O/T POISON

INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN

**POISON** 

## **SECTION 15: REGULATORY INFORMATION**

**EPA Registration No.** 264-1052



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## **US Federal Regulations**

**TSCA list** 

Diatomaceaous earth 61790-53-2 Sodium lignosulphonate 8061-51-6 Alkylnaphthalenesulfonic acid, polymer 68425-94-5

with formaldehyde, sodium salt

Dimethyl silicones and siloxane, reaction 67762-90-7

products with silica

Citric acid 77-92-9

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**

Diatomaceaous earth 61790-53-2 CA, MN, RI

#### **Environmental**

#### CERCLA

None.

Clean Water Section 307(a)(1)

None.

Safe Drinking Water Act Maximum Contaminant Levels

Yes

Tebuconazole 107534-96-3

#### **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.



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## **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 - 2 Flammability - 1 Instability - 0 Others - none

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

**Reason for Revision:** The following sections have been revised: Section 11: Toxicological Information. Section 15: Regulatory information. Section 16: Other Information. Reviewed and updated for general editorial purposes.

**Revision Date: 03/14/2024** 

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

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