



Partners with solutions

MATERIAL SAFETY DATA SHEET

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TRANSPORTATION EMERGENCY

CHEMTREC: (800)-424-9300

EMERGENCY AND PRODUCT INFORMATION

OHP, Inc.: (800)-356-4647

STRIKE® 50 WDG

EPA Registration Number: 432-1367-59807

I. CHEMICAL PRODUCT INFORMATION

PRODUCT NAME : Strike® 50 WDG
Greenhouse and Nursery Systemic Fungicide
CHEMICAL FAMILY : Triazole Fungicide
SYNONYMS : Triadimefon
EPA Registration No. : 432-1367-59807

silica that may be contained in the product, however, is small, such that inhalation exposure during anticipated conditions of use is minimal.

MEDICAL CONDITIONS

AGGRAVATED BY EXPOSURE: . . . : No specific medical conditions are known which may be aggravated by exposure to this product. As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema, or hyperreactive airways disease may be more susceptible to overexposure. Pulmonary and respiratory diseases may be aggravated by exposure to respirable crystalline silica.

II. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS No.	Average % by Weight
Triadimefon	43121-43-3	50.00
Quartz (Silica, Crystalline)	14808-60-7	0.36

III. HAZARDS IDENTIFICATION

NOTE: Please refer to Section XI for detailed toxicological information.

Emergency Overview . . . : Caution! Harmful if swallowed, inhaled or absorbed through the skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes and clothing. Avoid breathing dust or spray mist.

Physical State : Granular
Odor : Sharp Musty
Appearance : Brown
Routes of Exposure : Eye contact, Skin contact, Inhalation, Skin absorption.

IMMEDIATE EFFECTS

Eye : Moderate eye irritation may occur from contact with the granular material or spray mixture. Avoid contact with eyes.
Skin : Slight irritation. Repeated contact may sensitize the skin, leading to allergic reactions. Harmful if absorbed through skin. Avoid contact with skin and clothing.
Ingestion : Harmful if swallowed. Do not take internally.
Inhalation : Avoid breathing dust or spray mist. Harmful if inhaled.

CHRONIC OR DELAYED

LONG-TERM : This product or its components may have target organ effects. This product or its components may have long term (chronic) health effects. This product contains ingredients that are considered to be probable or suspected human carcinogens (see Section XI - Chronic).

This product is not listed as a carcinogen by ACGIH, NTP, IARC or OSHA. However, it may contain crystalline silica (quartz), a substance which has been listed as a carcinogen by ACGIH, NTP and IARC. Crystalline silica is a naturally-occurring mineral component of many sands and clays. Although the carcinogenic potential of crystalline silica in humans is controversial, it must be considered if it is inhaled under excessive exposure conditions. The respirable portion of the

IV. FIRST AID MEASURES

General : When possible have the product container or label with you when calling a poison control center or doctor or going for treatment.

Eye : 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 poison control center or doctor for treatment advice.

Skin : Take off all contaminated clothing immediately. Rinse immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.

Ingestion : Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. 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.

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 poison control center or doctor for further treatment advice.

Notes to Physician:

Signs and Symptoms . . . : Poisoning is accompanied by hyperactivity followed by sedation.

Treatment : There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

V. FIRE FIGHTING MEASURES

Flash point : Not applicable
Suitable Extinguishing Media . . . : Water, carbon dioxide (CO₂) foam, dry chemical.

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Fire Fighting Instructions : Keep out of smoke. Fight fire from upwind position. Dike area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated.

In the event of fire, wear self-contained breathing apparatus.

is necessary under the conditions of use, wear a respirator approved by the National Institute for Occupational Safety and Health (NIOSH).

Exposure Limits

Quartz (Silica, Crystalline)	14808-60-7	ACGIH	TWA	0.05 mg/m3
		Form of Exposure		Respirable fraction.
		ACGIH NIC	TWA	0.025 mg/m3
		Form of Exposure		Respirable fraction.
		NIOSH	REL	0.05 mg/m3
		Form of Exposure		Respirable dust.
		OSHA ZIA	TWA	0.1 mg/m3
		Form of Exposure		Respirable dust.
		Z3	TWA	2.4 millions of particles per cubic foot of air

Form of Exposure
Remarks
Respirable.
The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.

Z3 TWA
Form of Exposure
Remarks
Respirable.
The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.

Z3 TWA
Form of Exposure
Remarks
0.3 mg/m3
Total dust.
The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.

US CA OEL	TWA PEL	0.1 mg/m3
Form of Exposure		Respirable dust.
US CA OEL	TWA PEL	0.3 mg/m3
Form of Exposure		Total dust.
OSHA Z1	PEL	5 mg/m3
Form of Exposure		Respirable fraction.
OSHA Z1	PEL	15 mg/m3
Form of Exposure		Total dust.

VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions : Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.

Methods For Clean Up : Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional Advice : Avoid dust formation. Use personal protective equipment. Do not allow product to enter streams, sewers or other waterways.

VII. HANDLING AND STORAGE

Handling Procedures : Handle and open container in a manner as to prevent spillage.

Storing Procedures : Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Work/Hygienic Procedures : Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Remove and wash contaminated clothing before re-use. Before removing gloves clean them with soap and water. As soon as practical, wash thoroughly and change into clean clothing.

Min/Max Storage Temperatures . . : No minimum / 60 day average temperature not to exceed 37.8° C / 100° F.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection : Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Train employees in safe use of the product. Follow all label instructions.

Engineering Controls : Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Eye/Face Protection : Protective eyewear

Hand Protection : Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.

Body Protection : Wear long-sleeved shirt and long pants and shoes plus socks.

Respiratory Protection : When respiratory protection

IX. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Brown
Physical State : Granular
Odor : Sharp musty
pH : 7.0 - 8 (5%) Aqueous solution
Bulk Density : 35-37 lb./cu ft.

X. STABILITY AND REACTIVITY

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Chemical Stability : Stable.

Conditions to Avoid : Exposure to moisture.
Exposure to extreme heat.

Incompatibility : Strong oxidizing agents.
Acids

Hazardous Decomposition

Products : Thermal decomposition
Amines
Hydrogen chloride (HCl)
Nitrogen oxides (NOx)
Carbon monoxide

XI. TOXICOLOGICAL INFORMATION

Acute toxicity studies have been bridged from a similar formulation containing the same percent of the active ingredient, triadimefon. The non-acute information pertains to the technical-grade active ingredient, triadimefon.

Acute Oral Toxicity : Male Rat: LD50: 812 mg/kg
Female Rat:
LD50:1,470 mg/kg

Acute Dermal Toxicity : Male/Female Rat:
LD50: > 2,000 mg/kg
Male/Female Rabbit:
LD50: > 2,000 mg/kg

Acute Inhalation Toxicity : Male/Female rat:
LC50: > 3.5 mg/l
Exposure time: 4 h
Determined in the form of dust.
(actual)

male/female rat:
LC50: > 14.0 mg/l
Exposure time: 1 h
Determined in the form of dust.
Extrapolated from the 4 hr LC50.
(actual)

Skin Irritation : Rabbit: slight irritation.

Eye Irritation : Rabbit: Minimally irritating

Sensitization : Potential skin sensitizer based on technical Triadimefon.

Chronic Toxicity : The major organs affected from long-term exposure to triadimefon in chronic studies in rats and dogs were the liver and/or thyroid (secondary effects).

Assessment Carcinogenicity . . . : EPA has classified triadimefon as a Group C (possible human carcinogen) based on borderline statistically significant increases in thyroid adenomas in male rats, and increases in liver adenomas in both sexes in mice. The Agency used a non-linear methodology approach for determining the Margin of Exposure (MOE) for the estimation of human cancer risk because the tumors were benign, and there were no apparent genotoxicity concerns. Therefore, EPA has a reasonable certainty that no harm will result from exposure to residues of triadimefon.

ACGIH

Quartz (Silica, Crystalline) 14808-60-7 Group A2

NTP

Quartz (Silica, Crystalline) 14808-60-7

IARC

Quartz (Silica, Crystalline) 14808-60-7 Overall evaluation: 1

OSHA

None

Reproductive &

Developmental Toxicity : REPRODUCTION: In reproduction studies in rats, triadimefon caused reproductive effects (e.g., smaller litter sizes) in conjunction with parental toxicity at the highest dose tested.

DEVELOPMENTAL TOXICITY: Triadimefon is not a primary developmental toxicant based on developmental toxicity studies in rats and rabbits. Malformations were observed in both species but only at maternally-toxic dose levels.

Neurotoxicity : Triadimefon caused prominent hyperactivity-related neurobehavioral changes in acute (oral gavage) and subchronic (diet) neurotoxicity screening studies in rats. There were no neuropathologic alterations in the skeletal muscle or neural tissues in either study.

Mutagenicity : Triadimefon is not considered genotoxic or mutagenic based on in vitro and in vivo mutagenicity studies.

XII. ECOLOGICAL INFORMATION

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 only as specified on the label.

Ecological Information : Ground Water Advisory: This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

XIII. DISPOSAL CONSIDERATIONS

General Disposal Guidance : Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal : Do not re-use empty containers. Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities. If burned, stay out of smoke.

XIV. TRANSPORT INFORMATION

DOT CLASSIFICATION : Not regulated for Domestic Surface Transportation

FREIGHT CLASSIFICATION : Insecticides or Fungicides, N.O.I.; other than poison

XV. REGULATORY INFORMATION

EPA Registration No. : 432-1367-59807

US Federal Regulations

TSCA list

Quartz (Silica, Crystalline) 14808-60-7

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

None

SARA Title III - section 302 - notification and information

None

**SARA Title III - section 313 - toxic chemical release
reporting**

Triadimefon	43121-43-3	1.0%
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US States Regulatory Reporting

CA Prop65

This product contains a chemical known to the state of California to cause cancer.

Quartz (Silica, Crystalline)	14808-60-7
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This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

Triadimefon	43121-43-3	Developmental toxin.
Triadimefon	43121-43-3	Female reproductive toxin.
Triadimefon	43121-43-3	Male reproductive toxin.

US State right-to-know ingredients

Triadimefon	43121-43-3	NJ
Quartz (Silica, Crystalline)	14808-60-7	IL, MA, MN, RI

Canadian Regulations

Canadian Domestic Substance List

Quartz (Silica, Crystalline)	14808-60-7
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Environmental

CERCLA

None

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None

XVI. OTHER INFORMATION

NFPA 704 (National Fire Protection Association)

NFPA	Health	Flammability	Reactivity	Others
	1	1	1	None

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

Reason to revise: New Material Safety Data Sheet.

Approval Date: 02/01/2006

This information is provided in good faith but without express or implied warranty. Buyer assumes all responsibility for safety and use not in accordance with label instructions.

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