



COMPASS Fungicide

MSDS Version 1.2

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	COMPASS Fungicide
Chemical Name	Benzeneacetic acid, (E,E)-alpha-(methoxyimino)-2((((1-(3-trifluoromethyl)phenyl)ethylidene)amino)oxy)methyl)-,methyl ester
Synonym	Trifloxystrobin
MSDS Number	R000041134
Chemical Family	
Chemical Formulation	
EPA Registration No.	432-1371
Canadian Registrat. No.	

Bayer Environmental Science
 95 Chestnut Ridge Road
 Montvale, NJ 07645
 USA

For MEDICAL, TRANSPORTATION or Other EMERGENCY call 1-800-334-7577 24 hours/day
 For Product Information call 1-800-331-2867

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
Trifloxystrobin Technical	141517-21-7	48.5000	51.5000
Crystalline silica (originates from carrier)	14808-60-7		0.8330

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview Caution! Causes moderate eye irritation. Harmful if absorbed through the skin; Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling.

Physical State	Solid granules
Odor	Weak odor, indeterminate
Appearance	Grey to Beige

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Routes of Exposure Inhalation, skin contact, skin absorption, eye contact.

Immediate Effects

General

CARCINOGENICITY: This product is not listed as a carcinogen by NTP or IARC, or regulated as a carcinogen by OSHA. However, it may contain crystalline silica (quartz), a substance which is classified by NTP as a Group 2 carcinogen and by IARC as a Group I carcinogen. Crystalline silica is a naturally-occurring mineral component of many sands and clays. Although controversial, the carcinogenic potential of crystalline silica must be considered if it is inhaled under excessive exposure conditions. However, the respirable portion of the silica which may be contained in this product is small, such that excessive inhalation exposure during normal conditions of use is unlikely.

NTP: Crystalline silica is classified as an NTP Anticipated Human Carcinogen - "Substances or groups of substances that may reasonably be anticipated to be carcinogens."

IARC: IARC has classified crystalline silica as a Group I carcinogen. "There is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica (quartz) from occupational sources."

OSHA: Not regulated.

Eye Non-irritating.

Skin Mildly toxic. Non-irritating. May cause an allergic reaction.

Ingestion Essentially non-toxic.

Chronic or Delayed Long-Term This product contains respirable crystalline silica. Excessive long-term exposure to respirable crystalline silica may cause silicosis, a form of progressive pulmonary fibrosis. Severe and permanent lung damage may result.

Medical Conditions Aggravated by Exposure Individuals with allergic history or pre-existing dermatitis should use extra care in handling this product. Pulmonary and respiratory diseases may be aggravated by exposure to respirable crystalline silica.

SECTION 4. FIRST AID MEASURES

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 contaminated clothing. Rinse skin immediately with plenty of water for 15-20 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 told to do so by a poison control center or doctor. Do not give anything by mouth to

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an unconscious person.

Inhalation Move person 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.

Note to Physician If ingested, induce emesis or lavage stomach. Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point Not applicable

Auto Ignition Temperature 320 °C / 608 °F

Suitable Extinguishing Media Dry chemical, Foam, Carbon dioxide (CO₂)

Fire Fighting Instructions Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal Do not walk through spilled material. Keep unauthorized people away.

Land Spill or Leaks Small Spill: Sweep up, keeping dust to a minimum, and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

SECTION 7. HANDLING AND STORAGE

Handling Procedures Handle and open container in a manner as to prevent spillage. Do not use, pour, spill or store near heat or open flame.

Storing Procedures Do not contaminate water, food, or feed by storage or disposal.

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 Recommendations for exposure control/personal protection are intended for the manufacture, formulation and packaging of the product. For end-use applications

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consult the product label.

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Wash thoroughly with soap and water after handling.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls	When handlers used closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [(40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.
Eye/Face Protection	Safety glasses with side-shields Chemical goggles
Hand Protection	Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.
Body Protection	Long-sleeved shirt and long pants Shoes plus socks Coveralls
Respiratory Protection	To avoid breathing dust, use a particulate filter, NIOSH approved per 42 CRF Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95-99.97% as appropriate for the size distribution of dusts present.
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. Do not enter treated areas without protective clothing until sprays have dried.
Exposure Limits	

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Grey to Beige
Physical State	Solid granules
Odor	Weak odor, indeterminate
pH	9-11 (1% suspension in water)
Vapor Pressure	2.56E(-11)
Bulk Density	0.60 g/cm ³ @ 25°C
Boiling Point	Not applicable
Melting/Freezing Point	70.9 °C
Solubility (in water)	0.00061 g/l

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	This is a stable material.
Incompatibility	Not known
Hazardous Products of Decomposition	None known
Hazardous Polymerization (Conditions to avoid)	Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	Male/Female Combined Rat: LD50: > 5,050 mg/kg
Acute Dermal Toxicity	Male/Female Combined Rat: LD50: > 2,000 mg/kg
Acute Inhalation Toxicity	Male/Female Combined Rat: LC50: 4-hr exposure to dust: > 2.74 mg/l (actual) Male/Female Combined Rat: 1-hr exposure to dust (extrapolated from 4-hr LC50): > 10.96 mg/l (actual)
Skin Irritation	Rabbit: Slight dermal irritant.
Eye Irritation	Rabbit: Mild irritation to the cornea and conjunctiva was observed with all

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irritation clearing within 7 days post-treatment.

Sensitization Guinea pig: Not a dermal sensitizer.

Sub-Chronic Toxicity In a 28-day dermal toxicity study in rats, trifloxystrobin was tolerated without local effects at doses up to and including the limit dose of 1000 mg/kg/day. Systemic effects were observed in males at the limit dose and included increased organ weights (liver and kidney).

Chronic Toxicity In chronic toxicity studies in mice and dogs, the major primary target organ appears to be the liver following dietary administration of trifloxystrobin. Liver effects were not seen in a chronic toxicity rat study with trifloxystrobin.

Assessment Carcinogenicity

Trifloxystrobin did not cause any treatment-related increase in general tumor incidence, any elevated incidence of rare tumors, or shortened time to the development of palpable or rapidly lethal tumors in an 18-month mouse and a 24-month rat study.

ACGIH

None

NTP

None

IARC

None

OSHA

None

Reproductive & Developmental Toxicity REPRODUCTION: In a two generation reproduction study using rats, trifloxystrobin was not a primary reproductive toxicant.

DEVELOPMENTAL TOXICITY: In developmental toxicity studies using rats and rabbits, trifloxystrobin was not a primary developmental toxicant.

Mutagenicity Trifloxystrobin has been tested for its potential to induce gene mutation and chromosomal changes in 5 different test systems. Taken collectively, these studies demonstrate trifloxystrobin is not genotoxic or mutagenic.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions This pesticide is toxic to fish and aquatic invertebrates. 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 may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

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Environmental Fate Ground Water Advisory: Several trifloxystrobin degradates have 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.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Pesticide Disposal: Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal Triple rinse (or equivalent). 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.

RCRA Classification

SECTION 14. TRANSPORT INFORMATION

TRANSPORTATION CLASSIFICATION:
Not Regulated for Transportation

SECTION 15. REGULATORY INFORMATION

RCRA STATUS: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

US Federal Regulations

EPA Registration No. 432-1371

TSCA list

None

TSCA 12b export notification

None

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.

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US State right-to-know ingredients

None

Canadian Regulations

Canadian Registrat. No.

Canadian Domestic Substance List

None

Environmental

CERCLA

None

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None

International Regulations

EU Classification

None

European Inventory of Existing Commercial Substances (EINECS)

None

SECTION 16. OTHER INFORMATION

	Health	Flammability	Reactivity	Others
NFPA	1	1	0	

MSDS REVISION INDICATOR: New Format; Add New EPA Registration Number.

Print Date: 01/16/2004

Supersedes MSDS, which is older than: 06/30/2003

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