

# MATERIAL SAFETY DATA SHEET



Date of Issue: November 26<sup>th</sup>, 2009

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name **Flint<sup>®</sup> 500 SC Fungicide**  
Other names None  
Product codes and pack sizes 6525350 (5 L)  
Chemical group Oximinoacetate  
Recommended use Fungicide for agricultural use  
Formulation Suspension concentrate  
Supplier Bayer CropScience Pty Ltd ABN 87 000 226 022  
Address 391 - 393 Tooronga Road, East Hawthorn  
Victoria 3123, Australia  
Telephone (03) 9248 6888  
Facsimile (03) 9248 6800  
Website [www.bayercropscience.com.au](http://www.bayercropscience.com.au)  
Contact Development Manager (03) 9248 6888  
Emergency Telephone Number 1800 033 111 – Orica SH&E Shared Services

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**  
HAZARDOUS SUBSTANCE (see Risk phrases below) – NON DANGEROUS GOOD  
Very toxic to aquatic organisms

Hazard classification Hazardous (National Occupational Health and Safety Commission - NOHSC)  
Risk phrases R43 – May cause sensitisation by skin contact.  
Safety phrases See Sections 4, 5, 6, 7, 8, 10, 12, 13  
ADG classification See Section 14.  
SUSDP classification 5 (Standard for the Uniform Scheduling of Drugs and Poisons)  
(Poison scheduling)

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration (g/L)
Trifloxystrobin	[141517-21-7]	500
Other ingredients, including wetting and thickening agents and water	(non hazardous)	644

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## 4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to the doctor.

Inhalation	If inhaled remove to fresh air and keep at rest. Obtain medical advice if at all worried.
Skin contact	Carefully remove contaminated clothing. Wash affected areas with soap and water. Seek medical aid if at all worried.
Eye contact	Rinse eyes immediately with clean water for at least 15 minutes and obtain medical aid.
Ingestion	Wash out mouth with water. Do NOT induce vomiting. Keep patient at rest and seek medical advice as above.
First Aid Facilities	Ensure washing facilities are available.
Medical attention	<i>Local contamination:</i> Treatment should be symptomatic after decontamination. In case of skin or eye contamination, treat as above under First Aid Measures. <i>Systemic poisoning:</i> There is no specific antidote. Treat symptoms. An aqueous suspension of activated charcoal may be administered to absorb remaining toxicant.

## 5. FIRE FIGHTING MEASURES

Extinguishing media	Water spray, carbon dioxide, foam, sand
Hazards from combustion products	In a fire, formation of hydrogen cyanide, hydrogen fluoride, carbon monoxide and nitrogen oxides can be expected.
Precautions for fire fighters	Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Contamination of water bodies should be strictly avoided.
Hazchem code	Not applicable

## 6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Do not smoke, eat or drink during the clean up process. Wear personal protective clothing and equipment as detailed in Section 8 PERSONAL PROTECTION. Keep people and animals away. Contain spill and absorb with earth, sand, clay, or other absorbent material. Prevent spilled material from entering drains or watercourses. Collect and store in properly labelled drums for safe disposal. Clean floor with a damp cloth and place it in the drum. Seal drums and label ready for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc. is unavoidable, warn the local water authority.

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## 7. HANDLING AND STORAGE

Handling	Keep out of reach of children. Will irritate the eyes. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length PVC gloves. Wash hands after use. After each day's use, wash gloves and contaminated clothing.
Storage	Store in the closed, original container in a dry, well-ventilated place as cool as possible out of direct sunlight.
Flammability	Not flammable or combustible

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards	There are no National Occupational Health and Safety Commission exposure standards for this product or its ingredients.	
Biological limit values	None allocated	
Engineering controls	Control process conditions to avoid contact. Use in a well-ventilated area only.	
Personal Protective Equipment	Eyes:	Safety goggles if exposure is possible
	Clothing:	Cotton overalls buttoned to the neck and wrist (or equivalent clothing)
	Gloves:	Elbow-length PVC gloves
	Respiratory:	A respirator is not normally required. If inhalation is likely, an AS/NZS 1715/1716 approved respirator should be worn.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to beige liquid suspension
Odour:	Slight characteristic
pH:	6.5 to 8.0 (undiluted)
Vapour pressure:	Not available
Vapour density:	Not available
Boiling point:	Not available
Freezing/melting point:	Not available
Solubility:	Miscible in water
Density:	Approximately 1.14 g/cm <sup>3</sup> at 20° C
Flash Point:	> 100° C
Flammability (explosive) limits:	Not available
Auto-ignition temperature:	Not available
Partition coefficient (octanol/water):	<i>Trifloxystrobin</i> : Log P <sub>ow</sub> = 4.5 at 25° C

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## 10. STABILITY AND REACTIVITY

Chemical stability	Stable under normal conditions of use.
Conditions to avoid	None known
Incompatible materials	Avoid strong acids and strong alkalis.
Hazardous decomposition products	In a fire, formation of hydrogen cyanide, hydrogen fluoride, carbon monoxide and nitrogen oxides can be expected.
Hazardous reactions	None

## 11. TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

Inhalation	Harmful if inhaled.
Skin contact	May irritate the skin.
Eye contact	Will irritate the eyes.
Ingestion	Product toxicity is low but may be harmful if a large amount is swallowed.

### ANIMAL TOXICITY DATA – PRODUCT (similar formulation)

#### Acute:

Oral toxicity	LD <sub>50</sub> rat: > 3000 mg/kg
Dermal toxicity	LD <sub>50</sub> rat: > 4000 mg/kg
Inhalation toxicity	LC <sub>50</sub> rat (4 hour): > 1.994 mg/L
Skin irritation	Not irritating (rabbit)
Irritation of mucous membranes	Not irritating (rabbit)
Sensitisation	Non-sensitising in Magnusson & Kligman test (guinea pig)

#### Chronic:

Trifloxystrobin has been tested for mutagenicity, neurotoxicity, reproduction, developmental, chronic toxicity and carcinogenicity. No evidence of adverse effects relevant to humans was obtained.

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## 12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. It has a low hazard to birds, earthworms and bees. DO NOT contaminate streams, rivers or waterways with Flint 500 SC or the used containers.

### Ecotoxicity

#### Trifloxystrobin:

*Fish toxicity:* LC<sub>50</sub> (96 h) bluegill sunfish (*Lepomis macrochirus*) 0.054 mg/L  
LC<sub>50</sub> (96 h) rainbow trout 0.015 mg/L  
*Daphnia toxicity:* EC<sub>50</sub> (48 h) *Daphnia magna* 0.016 mg/L  
*Algal toxicity:* E<sub>b</sub>C<sub>50</sub> green algae (*Desmodesmus subspicatus*) 0.0053 mg/L  
*Bird toxicity:* LD<sub>50</sub> bobwhite quail > 2000 mg/kg  
LD<sub>50</sub> mallard duck > 2250 mg/kg

#### Flint 500 SC:

*Fish toxicity:* LC<sub>50</sub> (96 h) rainbow trout (*oncorhynchus mykiss*) 0.035 mg/L  
*Daphnia toxicity:* EC<sub>50</sub> (48 h) *Daphnia magna* 0.0087 mg/L  
*Algal toxicity:* EC<sub>50</sub> (72 h) green alga (*Pseudokirchneriella subcapitata*) 0.034 mg/L

### Environmental fate, persistence and degradability, mobility

Trifloxystrobin dissipates rapidly from soil and surface water. Soil DT<sub>50</sub> 4.2-9.5 days. No leaching potential. In water, DT<sub>50</sub> 0.3-1 days, DT<sub>90</sub> 4-8 days.

## 13. DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse containers before disposal. Add rinsings to the mixing tank. Do not dispose of undiluted chemical on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Do not re-use containers for any other purpose.

## 14. TRANSPORT INFORMATION

UN number	UN 3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (contains trifloxystrobin)
Class and Subsidiary Risk	Class 9
Packing Group	Packing Group III
Hazchem code	•3Z
Marine Pollutant	Yes
Note for Road and Rail Transport	According to AU01, Environmentally Hazardous Substances in packagings, IBCs or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code

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## 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act, 1994

Australian Pesticides and Veterinary Medicines Authority approval number: 59837

See also Section 2.

## 16. OTHER INFORMATION

**Trademark information** Flint® is a Registered Trademark of Bayer.

**Preparation information** Replaces March 19<sup>th</sup>, 2009 edition.  
Reasons for revision: Transport information

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

END OF MSDS