

**Luna[®] Sensation**

Date of Issue: 07 June 2015

Date of Previous Issue: 07 November 2014

1. Identification of the Substance/Mixture and Supplier.

Product name:	Luna Sensation
Application:	Fungicide for the control of powdery mildew in grapes.
Company:	Bayer New Zealand Limited, 3 Argus Place, Hillcrest, Auckland 0627, New Zealand.
Telephone:	0800 428 246
Facsimile:	(09) 441 8645
Emergency telephone:	0800 734 607 Orica SH&E Shared services (24hr)

2. Hazards Identification.

Hazard classification:	Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
Classification and type:	<p>HSNO Class*</p> <p>6.1D May be harmful if swallowed, inhaled or absorbed through the skin.</p> <p>6.9B May cause organ damage from repeated oral exposure at high doses.</p> <p>9.1A Toxic to aquatic organisms with long-lasting effects.</p> <p>9.3C Harmful to terrestrial vertebrates.</p>

3. Composition/Information on Ingredients.

<p>Chemical nature Suspension concentrate (SC)</p>

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Fluopyram/Trifloxystrobin 250:250 g/L

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
Fluopyram	658066-35-4	21.37
Trifloxystrobin	141517-21-7	21.37
1,2-Benzisothiazol-3(2H)-one	2634-33-5	>0.005 - < 0.05

4. First Aid Measures.

General advice:	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Inhalation:	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control centre immediately.
Skin contact:	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
Ingestion:	Rinse mouth. Do NOT induce vomiting. Call a physician or poison control centre immediately.
Most important symptoms and effects, both acute and delayed:	No symptoms known or expected.
Notes to Physician: Treatment	Treat symptomatically. In case gastric lavage should be considered in case of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote.

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Further information:	Contact the National Poisons and Hazardous Chemicals Information centre in Dunedin, PO Box 913, Dunedin. Phone 0800 POISON (0800 764 766).
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5. Fire-Fighting Measures.

Suitable extinguishing media:	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media:	High volume water jet.
Special hazards arising from the substance or mixture:	In the event of fire the following may be released: Hydrogen chloride (HCl) Hydrogen cyanide (hydrocyanic acid) Hydrogen fluoride Carbon monoxide (CO) Nitrogen oxides (NO _x)
Special protective equipment for fire-fighters:	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
Further information:	Contain the spread of the fire-fighting media. Do not allow run-off from fire-fighting to enter drains or water courses.

6. Accidental Release Measures.

Personal precautions:	Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.
Environmental precautions:	Do not allow to get into surface water, drains and ground water.
Methods for cleaning up:	Soak up with inert absorbent material (e.g. sand, silica gel, acid 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. Keep in suitable, closed containers for disposal.
Additional advice:	Information regarding safe handling: see section 7. Information regarding personal protective equipment: see section 8. Information regarding waste disposal, see section 13.

7. Handling and Storage.

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Handling:	<p>Advice on safe handling Use only in area provided with appropriate exhaust ventilation. For personal protection see section 8.</p> <p>Advice on protection against fire and explosion No special precautions required.</p> <p>Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).</p>
Storage:	<p>Requirements for storage areas and containers Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight. Protect from frost.</p> <p>Advice on common storage Keep away from food, drink and animal feeding stuffs.</p> <p>Suitable materials HDPE (high density polyethylene)</p> <p>Specific end uses Refer to the label and/or leaflet.</p>

8. Exposure Control/Personal Protection.**Components with workplace control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Fluopyram	658066-35-4	0.34 mg/m ³ (OES BCS)		OES BCS*
Trifloxystrobin	141517-21-7	2.7 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

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<p>Respiratory protection:</p> <p>Hand protection:</p> <p>Eye protection:</p> <p>Skin and body protection:</p>	<p>Personal protect equipment: In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.</p> <p>Respiratory protection is not required under anticipated circumstances of exposure. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source, e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.</p> <p>Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0.40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.</p> <p>Wear goggles conforming to EN166 (Field of Use 5 or equivalent).</p> <p>Wear standard coverall and Category 3 Type 6 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.</p>
<p>9. Physical and Chemical Properties.</p>	
<p>Appearance Form: Colour: Odour:</p> <p>Safety Data: pH: Flash point:</p>	<p>Suspension White to beige characteristic</p> <p>5.0 – 8.0 at 100% (23 °C) (deionised water)</p> <p>> 100 °C</p>

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Autoignition temperature:	370 °C
Density:	ca. 1.17 g/cm ³ at 20 °C
Water solubility	suspensive
Partition coefficient: n-octanol/water	Fluopyram: log Pow: 3.3 at 40 °C Trifloxystrobin: log Pow: 4.5at 25 °C
Viscosity, kinematic	No data available
Surface tension:	38 mN/m at 25 °C Determined in the undiluted form.
Oxidizing properties:	No oxidizing properties
Explosivity:	Not explosive 92/69/EEC, A.14 / OECD 113
Other information:	Further safety related physical-chemical data are not known.
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:	Store only in the original container.
Hazardous decomposition products:	No decomposition products expected under normal conditions of use.
11. Toxicological Information.	
Acute oral toxicity:	LD50 (rat) > 2,000 mg/kg

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Acute inhalation toxicity:	LC50 (rat) > 1.7 mg/L Exposure time: 4hr.
Acute Dermal toxicity	LD50 (rat) > 2,000 mg/kg
Skin irritation:	No skin irritation (rabbit)
Eye irritation:	Irritating to eyes (rabbit)
Sensitization:	Non-sensitizing. (mouse) OECD Test Guideline 429, local lymph node assay (LLNA)
Assessment repeated dose toxicity:	Fluopyram 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:	Fluopyram was not mutagenic or genotoxic in a battery of <i>in vitro</i> and <i>in vivo</i> tests. Trifloxystrobin was not mutagenic or genotoxic in a battery of <i>in vitro</i> and <i>in vivo</i> tests.
Assessment carcinogenicity	Fluopyram caused at high dose levels an increased incidence of tumours in rats in the following organ(s): liver. Fluopyram caused at high dose levels an increased incidence of tumours in mice in the following organ(s): Thyroid. The tumours seen with Fluopyram were caused through a non-genotoxic mechanism, which is not relevant at low doses. The mechanism that triggers these tumours is not relevant to humans. Trifloxystrobin was not carcinogenic in lifetime feeding studies in rats and mice
Assessment toxicity to reproduction:	Fluopyram 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 Fluopyram is related to parental toxicity. 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.
Assessment developmental toxicity:	Fluopyram caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Fluopyram are related to maternal toxicity. Trifloxystrobin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Trifloxystrobin are related to maternal toxicity.

12. Ecological Information.

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Toxicity to fish:	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 0.091 mg/l Exposure time: 96 h
Toxicity to aquatic invertebrates:	EC50 (Water flea (<i>Daphnia magna</i>)) 0.086 mg/l Exposure time: 48 h
Toxicity to aquatic plants:	IC50 (<i>Pseudokirchneriella subcapitata</i>) 0.292 mg/l Growth rate; Exposure time: 72 h
Biodegradability:	Fluopyram: not rapidly biodegradable. Trifloxystrobin: not rapidly biodegradable.
Koc	Fluopyram: Koc: 279 Trifloxystrobin: Koc: 2377
Bioaccumulation:	Fluopyram: Bioconcentration factor (BCF) 18 Does not bioaccumulate. Trifloxystrobin: Bioconcentration factor (BCF) 431 Does not bioaccumulate.
Mobility in soil:	Fluopyram: Moderately mobile in soils. Trifloxystrobin: Slightly mobile in soils.
Results of PBT and vPvB assessment:	Fluopyram: 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).
Other adverse effects:	No other effects to be mentioned.

13. Disposal Considerations.

Product disposal:	Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.
Container disposal:	Triple rinse the empty container adding rinseate to the spray tank. Recycle if possible. If allowed under local authority, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. Do not use container for any other purpose.

14. Transport Information.

SAFETY DATA SHEET



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Rail/Road (RID/ADR):	UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Trifloxystrobin Solution), Class 9, Packing Group III, Hazchem Code 3Z.
Sea (IMDG-Code):	UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Trifloxystrobin Solution), Class 9, Packing Group III, Hazchem Code 3Z.
Air (ICAO/IATA):	UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Trifloxystrobin Solution), Class 9, Packing Group III, Hazchem Code 3Z.
15. Regulatory Information.	
HSNO Approval Number:	HSR100998
HSNO Controls (inc. Tracking):	See www.epa.govt.nz for controls.
ACVM Registration:	P9161
ACVM Controls:	See www.foodsafety.govt.nz for registration conditions.
16. Other Information.	
N/A	

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The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.