SAFETY DATA SHEET Section 1: IDENTIFICATION

INSTRATA
A14036B
Fungicide
Syngenta Crop Protection Limited
Level 4, 60 Parnell Road,
Parnell
AUCKLAND 1052
NEW ZEALAND
(weekdays) 09 306 1500
(24 Hours) 0800 734 607
0800 POISON (0800 764 766)

Section 2: HAZARDS IDENTIFICATION

Hazard classification:	6.1B, 6.5B, 6.7B, 6.9A, 8.3A, 9.1A, 9.2B, 9.3B
Priority Identifier:	DANGER
	KEEP OUT OF REACH OF CHILDREN
Secondary Identifiers:	6.1B May be fatal if inhaled.
-	6.5B May cause sensitisation from prolonged skin contact.
	6.7B Suspected of causing cancer.
	6.9A May cause kidney damage from repeated oral exposure at high
	doses.
	8.3A This product is corrosive and may cause eye damage
	9.1A Very toxic to aquatic organisms.
	9.2B Toxic to the soil environment.
	9.3B Toxic to terrestrial vertebrates.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Mixture:		
Chemical Identity of ingredients:		
Ingredient	CAS no.	Content (% w/v)
Chlorothalonil	1897-45-6	36.2
Propiconazole	60207-90-1	5.7
Fludioxonil	131341-86-1	1.45
Poly(oxy-1,2-ethanediyl), -[2,4,6-tris(1-phenylethyl)phenyl] -hydroxy-	99734-09-5	>= 2.5 - < 10
1,2-benzisothiazol-3(2H)-one	2634-33-5	>= 0.0025 - <0.025
Other ingredients determined not to be hazardous	-	to 100%

Section 4: FIRST AID MEASURES

General Advice:	neasures:
General Auvice:	For advice contact the National Poisons Centre on 0800 POISON
	(0800 764 766) or a doctor immediately. Begin artificial respiration if
	the victim is not breathing. Use mouth to nose rather than mouth to
	mouth. Obtain medical attention.
If inhaled:	Move the victim to fresh air.
	If breathing is irregular or stopped, administer artificial respiration.
	Keep patient warm and at rest.
	Call a Doctor or the National Poisons Centre immediately.

In case of skin contact:	Take off all contaminated clothing immediately.
	Wash off immediately with plenty of water.
	If skin irritation persists, call a doctor.
	Wash contaminated clothing before re-use.
In case of eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at
	least 15 minutes.
	Remove contact lenses (if present).
	Immediate medical attention is required.
If swallowed:	If swallowed seek medical advice immediately and show the container
	or label.
	DO NOT induce vomiting.
Important symptoms and eff	ects, both acute and delayed:
Symptoms:	Nonspecific
	No symptoms known or expected.
Indication of any immediate	medical attention and special treatment needed:
	No specific antidote is available. If poisoning is suspected apply symptomatic therapy.

Section 5: FIRE-FIGHTING MEASURES

Extinguishing media:	
Suitable extinguishing media:	Small fires:
	Use water spray, alcohol-resistant foam, dry chemical or carbon
	dioxide.
	Large Fires:
	Alcohol resistant foam or water spray.
Unsuitable extinguishing media:	Do not use a solid water stream as it may scatter and spread fire.
Special hazards arising from the s	substance or mixture:
Specific hazards during fire-	As the product contains combustible organic components, fire will
fighting:	produce dense black smoke containing hazardous products of
	combustion (see section 10)
	Exposure to decomposition products may be a hazard to health.
Advice for firefighters:	
Special protective equipment for firefighters:	Wear full protective clothing and self-contained breathing apparatus.
Hazchem Code:	2X
Further information:	Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures		
	Refer to protective measures listed in Sections 7 and 8.	
Environmental Precautions:		
	Prevent further leakage or spillage if safe to do so.	
	Do not flush into surface water or sanitary sewer system.	
	If the product contaminates rivers and lakes or drains inform respective authorities.	
	authorities.	

Methods and material for contai	inment and cleaning up:
	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents. Retain and dispose of contaminated wash water.
Reference to other sections:	Refer to disposal considerations listed in Section 13. Refer to protective measures listed in sections 7 and 8.

Section 7: HANDLING AND STORAGE

Precautions for Safe handling:	
Advice on safe handling:	No special protective measures against fire required.
-	Avoid contact with skin and eyes.
	When using do not eat, drink or smoke.
	For personal protection see section 8.
Conditions for safe storage, inclu	uding any incompatibilities:
Requirements for storage area	No special storage conditions required. Keep containers tightly closed
and containers:	in a dry, cool and well-ventilated place. Keep out of the reach of
	children. Keep away from food, drink and animal feedingstuffs.
Specific end use(s)	
Specific use(s)	For proper and safe use of this product, please refer to the approval
	conditions laid down on the product label.

Section 8: EXPOSURE CONTROL / PERSONAL PROTECTION

Control Parameters Occupational Exposure Limits:				
Components	CAS No	Value type (form of exposure)	Control parameters	Basis
Chlorothalonil	1897-45-6	TWA	0.1 mg/m ³	Syngenta
Propiconazole	60207-90-1	TWA	5 mg/m³	Syngenta
Fludioxonil	131341-86-1	TWA	5 mg/m ³	Syngenta

Exposure controls	
Engineering measures:	Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.
Personal Protective Protection:	
Eye protection:	Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded. Tightly fitting safety goggles Face-shield
Hand protection:	
Material:	Impervious, such as nitrile rubber.
Break through time:	>480 min
Glove thickness:	0.5 mm

Remarks:	Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin and body protection:	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Remove and wash contaminated clothing before re-use. Wear as appropriate: Impervious clothing.
Respiratory protection:	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Suitable respiratory equipment: Respirator with a particle filter The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
Filter type:	Particulates type (P)
Protective measures:	The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical pr	operties:
Appearance:	Liquid, viscous
Colour:	Grey
Odour:	Aromatic
Odour threshold:	No data
pH value	5.5, concentration: 1 % w/v
Melting point / freezing point:	No data
Initial boiling point and boiling range:	No data
Flash point:	>100°C at 741-749 mmHg Pensky-Martens c.c.
Flammability (solid, gas):	No data
Upper flammability / explosive limits:	No data
Lower flammability / explosive limits	No data
Vapour pressure:	No data
Vapour Density:	No data
Density:	1.2 g/cm ³ (25°C)
Solubility in other solvents:	No data
Partition co-efficient: n-octanol / water:	Chorothalonil: log Pow: 2.94 (25°C)
	Propiconazole: log Pow: 3.72 (25°C)
	Fludioxonil: log Pow: 4.12 (25°C)
Autoignition temperature	>650°C
Decomposition temperature:	No data
Dynamic viscosity:	903 mPa.s (20°C)
Explosive properties:	Not explosive

The substance or mixture is not classified as oxidizing No data No data

Section 10: STABILITY AND REACTIVITY

Reactivity:

See Section: "Possibility of Hazardous Reactions".

Chemical Stability:

The product is stable when used in normal conditions.

Possibility of Hazardous Reactions:

Hazardous reactions: No dangerous reaction known under conditions of normal use.

Conditions to Avoid

No decomposition if used as directed.

Incompatible Materials:

Materials to avoid: None known

Hazardous Decomposition Products:

Combustion or thermal decomposition will evolve toxic and irritant vapours.

Section 11: TOXICOLOGICAL INFORMATION

HSNO Classifications:

6.1B May be fatal if inhaled.

6.5B May cause sensitisation from prolonged skin contact.

6.7B Suspected of causing cancer.

6.9A May cause kidney damage from repeated oral exposure at high doses.

8.3A This product is corrosive and may cause eye damage

a raduat)		
product) LD ₅₀ > 5,000 mg/kg (Rat, male and female)		
LD_{50} > 5,000 mg/kg (Rat, male and female)		
LC_{50} (4 h) 0.52 – 2.01 mg/L (Rat, male and female)		
Not classified		
Not classified		
NON-IRRITANT (rabbit)		
IRRITANT (rabbit)		
SKIN SENSITISER (guinea pigs)		
Chronic / Long Term Effects (active ingredient)		
Chorothalonil: Animal testing did not show any mutagenic effects.		
Propiconazole: Animal testing did not show any mutagenic effects.		
Fludioxonil: Animal testing did not show any mutagenic effects.		
Chlorothalonil: causes kidney tumours in rats and mice via a non-gentoxic mode		
of action secondary to target organ toxicity.		
Propiconazole: Animal testing did not show any carcinogenic effects.		
Fludioxonil: Animal testing did not show any carcinogenic effects.		

Reproductive toxicity:		No toxicity to reproduction. Animal testing did not show any effects on fertility. No toxicity to reproduction
	Fludioxonil:	No toxicity to reproduction.
Specific Organ toxicity:	exposure. <i>Repeated expo</i> Target Organs: The substance exposure, Clas	or mixture is not classified as specific target organ toxicant, single <i>osure:</i>
Narcotic Effects:	Not classified	

Section 12: ECOLOGICAL INFORMATION

	HSNO Classifications:
9.1A = Very toxic to aquatic organisms.	
9.2B = Toxic to the soil environment.	
9.3B = Toxic to terrestrial vertebrates.	
Ecotoxicity Effects – Aquatic (produc	<i>t</i>)
Acute toxicity to fish:	LC ₅₀ (96h) = 0.155 mg/L (<i>Oncorhynchus mykiss</i> (rainbow trout))
Toxicity to daphnia and other	EC ₅₀ (48h) = 0.45 mg/L (<i>Daphnia magna</i> (water flea))
aquatic invertebrates:	
Toxicity to algae:	E _r C ₅₀ (72 h) = 2.05 mg/L (<i>Pseudokirchneriella subcapitata</i> (green
	algae))
Ecotoxicity Effects – Terrestrial (activ	
Toxicity to Birds:	Chlorothalonil:
	LD_{50} (8 d) = >4640 mg/kg (mallard duck)
	8 day dietary LC50 = >10,000 mg/kg (bobwhite quail and mallard
	duck)
	Propiconazole:
	LD ₅₀ = >2510 mg/kg (mallard ducks)
	LD ₅₀ = 2825 mg/kg (bobwhite quail)
	Fludioxonil:
	$LD_{50} = 2000 \text{ mg/kg}$ (mallard ducks and bobwhite quail)
Toxicity to soil dwelling organisms:	Chlorothalonil:
	LC ₅₀ (14 days) = >404 mg/kg (earthworms)
	Propiconazole:
	No toxic effects Lumbricus rebellus
	Fludioxonil:
	LC ₅₀ (14 days) >1000mg/kg (earthworms (<i>Eisenia foetida</i>)
Toxicity to Bees:	Chlorothalonil:
	LD_{50} (48 h, oral) = >63 µg/bee
	LD_{50} (48 h, contact) = >101 µg/bee
	Propiconazole:
	LD ₅₀ >100 ug/bee (oral and contact)
	Fludioxonil:
	LD ₅₀ (48 h, oral) = >329 μg/bee;
	LD_{50} (48 h, contact) = >101 µg/bee
	LD_{50} (40 II, contact) – 2 IUT µg/bee

Persistence and degradability:		
Biodegradability:	Chlorothalonil:	Biodegrades
	Propiconazole:	Not readily biodegradable.
	Fludioxonil:	Not readily biodegradable.
Stability in water:	Chlorothalonil:	Degradation half-life (DT ₅₀): <5 d (20°C)
,	-	Not persistent in water.
	Propiconazole:	Stable in water.
	Fludioxonil:	Degradation half-life: ca. 10 d
		Not persistent in water.
Bioaccumulative potential:		
Bioaccumulation:	Chlorothalonil:	Low bioaccumulation potential.
	Propiconazole:	Low to medium bioaccumulation potential.
	Fludioxonil:	Does not bioaccumulate.
Mobility in soil:		
Distribution among environmental		
compartments:	Chlorothalonil:	Low to slight mobility in soil.
	Propiconazole:	Low to medium mobility in soil.
	Fludioxonil:	Immobile
Stability in soil:	Chlorothalonil:	DT ₅₀ : 7 d
-		Percentage dissipation: 50%
		Remarks: Not persistent in soil.
	Propiconazole:	66 - 170 d
		Percentage dissipation: 50 % (DT ₅₀)
		Remarks: Not persistent in soil.
	Fludioxonil:	Dissipation time: 14 d
		Percentage dissipation: 50 % (DT ₅₀)
		Remarks: Not persistent in soil.
Other adverse effects:		
Results of PBT and vPvB		mixture contains no components considered to be
assessment (product):	•	ccumulating and toxic (PBT). This substance is not
		e very persistent and very bioaccumulating (vPvB)
	at levels of 0.1%	o or higher.

Section 13: DISPOSAL CONSIDERATIONS

Product Disposal:	DO NOT contaminate ponds, waterways or ditches with chemical or used containers. DO NOT dispose of waste into sewer. Dispose of this product only by using according to the label. Otherwise, dispose of waste at an approved landfill or other approved facility that will ensure the substance does not exceed the tolerable exposure limit (TEL) or environmental exposure limit (EEL), where relevant, or will treat the substance so that it is rendered no longer hazardous.
Container Disposal:	Ensure the container is empty. Triple rinse empty container and add rinsate to the spray tank. Recycle empty container through Agrecovery (0800 247 326, www.agrecovery.co.nz). Otherwise crush and bury in a suitable landfill. DO NOT reuse this container for any other purpose.

Section 14: TRANSPORT INFORMATION

Rail / Road (NZS 5433)	UN-No: Class: Packaging Group: Proper shipping name:	3082 9 III ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorothalonil and Fludioxonil)
Sea (IMDG-Code)	UN-No: Class: Packaging Group: Proper shipping name:	3082 9 III ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorothalonil and Fludioxonil)
	EmS Code: MARINE POLLUTANT:	F-A, S-F Yes
Air (IATA)	UN-No: Class: Packaging Group: Proper shipping name:	3082 9 III ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorothalonil and Fludioxonil)
	Packing instruction: Packing instruction (LQ)	964 (cargo and passenger aircraft)): Y964 (cargo and passenger aircraft)

Section 15: REGULATORY INFORMATION

HSNO Approval Number:	HSR100388
Tolerable Exposure Limit or	
Environmental Exposure Limit: Required Regulatory Controls:	No TEL or EEL values are set for this substance at this time
Certified handler:	Yes
Tracking:	Yes
Record Keeping:	Yes, 9.1A substance
ACVM Registration:	Not applicable
ACVM Controls:	Not applicable
International Agreements related to the substance (eg, Montreal Protocol, Stockholm Convention	Not applicable
or Rotterdam Convention):	

Section 16: OTHER INFORMATION

Date of SDS Preparation / Review:	24 February 2023
Version number of SDS:	5.0
Key / Legend to abbreviations and	
acronyms used:	
acronyms used: AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisati DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EMS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Agency for Resociation; IBC - International Code for the Construction and Equipt of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration;	 N.O.S Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; on; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure ActivityRelationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration,
ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in C IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population LD50 - Lethal Dose to 50% of a test population (Median Dose);	TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; wES – Workplace Exposure Standard (Worksafe NZ);

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the test.

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