

Version	Revision Date:
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SDS Number: S00044618415

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### **1.1 Product identifier**

Trade name	:	ASCERNITY
Design code	:	A19188B
Product Registration Number	:	MAPP 19544
Unique Formula Identifier (UFI)	:	52Q0-E02H-K000-2YM6

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture	:	Fungicide
Recommended restrictions on use	:	professional use

#### 1.3 Details of the supplier of the safety data sheet

Company	:	Syngenta UK Limited CPC4, Capital Park Fulbourn, Cambridge CB21 5XE United Kingdom
Telephone	:	+44 (0) 1223 883400
Telefax	:	+44 (0) 1223 882195
E-mail address of person responsible for the SDS	:	customer.services@syngenta.com

#### **1.4 Emergency telephone number**

Emergency telephone	:	+44 1484 538444
number		

### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

### Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Short-term (acute) aquatic hazard,	H400: Very toxic to aquatic life.
Category 1	
Long-term (chronic) aquatic hazard,	H410: Very toxic to aquatic life with long lasting



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Categ	jory 1		effects.
2.2 Label	elements		
	lling (REGULATION (I rd pictograms	EC) No 1272/200	8)
Signa	l word	: Warning	V
Hazaı	rd statements	H315 Cau H319 Cau H332 Har H335 May	mful if swallowed. Ises skin irritation. Ises serious eye irritation. mful if inhaled. V cause respiratory irritation. V toxic to aquatic life with long lasting effects.
	lemental Hazard ments	: EUH401 environmen	To avoid risks to human health and th t, comply with the instructions for use.
Preca	utionary statements	P264 Was P280 Wea	id breathing mist. sh hands and face thoroughly after handling. ar protective gloves/ protective clothing/ eye ace protection.
		<b>Response:</b> P337 + P31 attention. P391 Coll	3 If eye irritation persists: Get medical advice/ ect spillage.
		waste dispo	oose of contents/container to a licensed hazardou sal contractor or collection site except for empty clean containers which can be disposed of as no vaste.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.



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### **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Propanoic acid, 2-hydroxy-, butyl ester, (2S)-	34451-19-9 205-316-4	Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 30 - < 50
difenoconazole	119446-68-3	Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 2.5 - < 10
benzovindiflupyr (ISO)	1072957-71-1 616-218-00-X	Acute Tox. 3; H301 Acute Tox. 3; H331 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100 Acute toxicity: 100	>= 1 - < 2.5
For explanation of abbreviations se		100.0 mg/kg	

For explanation of abbreviations see section 16.

### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

General advice

: Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.



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lf inh	aled	:	respiration. Keep patient warm and at	stopped, administer artificial
In ca	se of skin contact	:	Take off all contaminated of Wash off immediately with If skin irritation persists, ca Wash contaminated clothin	plenty of water. Il a physician.
In ca	se of eye contact	:	Rinse immediately with ple for at least 15 minutes. Remove contact lenses. Immediate medical attentio	enty of water, also under the eyelide
lf swa	allowed	:	If swallowed, seek medica container or label. Do NOT induce vomiting.	I advice immediately and show this
			No symptoms known or ex	ipeolea.
	<b>ation of any immediate</b> Iment	meo :	<b>ical attention and special</b> There is no specific antido Treat symptomatically.	treatment needed
Treat	-	:	ical attention and special There is no specific antido Treat symptomatically.	treatment needed
Treat	ment	:	ical attention and special There is no specific antido Treat symptomatically.	treatment needed
Treat	N 5: Firefighting mea	: sur	ical attention and special There is no specific antido Treat symptomatically. s Extinguishing media - sma	treatment needed te available. Il fires esistant foam, dry chemical or
Treat	ment N 5: Firefighting meas guishing media ble extinguishing media	: sur	ical attention and special There is no specific antido Treat symptomatically. s Extinguishing media - sma Use water spray, alcohol-r carbon dioxide. Extinguishing media - large Alcohol-resistant foam	treatment needed te available. Il fires esistant foam, dry chemical or
Treat SECTION S.1 Exting Suita Unsu media	ment N 5: Firefighting meas guishing media ble extinguishing media	: sur :	ical attention and special There is no specific antido Treat symptomatically. S Extinguishing media - sma Use water spray, alcohol-r carbon dioxide. Extinguishing media - large Alcohol-resistant foam Do not use a solid water si fire.	treatment needed te available. Il fires esistant foam, dry chemical or e fires
Treat SECTION 5.1 Exting Suita Unsu media 5.2 Speci Spec	<b>N 5: Firefighting mea</b> <b>guishing media</b> ble extinguishing media	: sur :	ical attention and special There is no specific antido Treat symptomatically. s Extinguishing media - sma Use water spray, alcohol-r carbon dioxide. Extinguishing media - large Alcohol-resistant foam Do not use a solid water st fire. substance or mixture As the product contains co will produce dense black s products of combustion (se	treatment needed te available. Ill fires esistant foam, dry chemical or e fires tream as it may scatter and spread ombustible organic components, fir moke containing hazardous ee section 10). n products may be a hazard to
Treat SECTION 5.1 Exting Suita Unsu media 5.2 Speci Spec firefig	<b>N 5: Firefighting meas</b> <b>guishing media</b> ble extinguishing media itable extinguishing a <b>al hazards arising from</b> ific hazards during	: sur :	ical attention and special There is no specific antido Treat symptomatically. S Extinguishing media - sma Use water spray, alcohol-r carbon dioxide. Extinguishing media - large Alcohol-resistant foam Do not use a solid water st fire. Substance or mixture As the product contains co will produce dense black s products of combustion (se Exposure to decomposition health.	treatment needed te available. Ill fires esistant foam, dry chemical or e fires tream as it may scatter and spread ombustible organic components, fire moke containing hazardous ee section 10). n products may be a hazard to



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for fire	fighters	apparatus.	
Furthe	er information	courses.	run-off from fire fighting to enter drains or water ontainers exposed to fire with water spray.

#### **SECTION 6: Accidental release measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	<ul> <li>Refer to protective measures listed in sections 7 and 8.</li> <li>Keep people away from and upwind of spill/leak.</li> <li>Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.</li> <li>Remove all sources of ignition.</li> <li>Pay attention to flashback.</li> </ul>

#### 6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system If the product contaminates rivers and lakes or drains inf respective authorities.	Environmental precautions	If the product contaminates rivers and lakes or drain	
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#### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up	<ul> <li>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).</li> <li>Clean contaminated surface thoroughly.</li> <li>Clean with detergents. Avoid solvents.</li> <li>Retain and dispose of contaminated wash water.</li> </ul>
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#### 6.4 Reference to other sections

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

#### **SECTION 7: Handling and storage**

7.1 Precautions for safe handling	
	Avoid contact with skin and eyes. When using do not eat, drink or smoke. Use only in an area containing flame proof equipment. Take precautionary measures against static discharges. For personal protection see section 8.

#### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage	:	Keep containers tightly closed in a dry, cool and well-
areas and containers		ventilated place. Keep out of the reach of children. Keep away
		from combustible material. Keep in an area equipped with
		sprinklers. Keep away from food, drink and animal
		feedingstuffs. No smoking.



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## 7.3 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 controls/personal protection**

:

#### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Propanoic acid, 2- hydroxy-, butyl ester, (2S)-	34451-19-9	TWA	5 ppm 30 mg/m3	GB EH40
			ecific short-term exposure lim posure limit should be used.	
difenoconazole	119446-68- 3	TWA	5 mg/m3	Syngenta
benzovindiflupyr (ISO)	1072957- 71-1	TWA	1 mg/m3	Syngenta

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
benzovindiflupyr (ISO)	Workers	Inhalation	Long-term systemic effects	0.478 mg/m3
	Workers	Inhalation	Acute systemic effects	1.13 mg/m3
	Workers	Dermal	Long-term systemic effects	3.33 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0.119 mg/m3
	Consumers	Dermal	Long-term systemic effects	1.67 mg/kg
	Consumers	Oral	Long-term systemic effects	0.049 mg/kg

#### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
benzovindiflupyr (ISO)	Fresh water	0.000095 mg/l
	Secondary poisoning	2 mg/kg
	Soil	0.041 mg/kg
	Marine water	0.000009 mg/l
	Fresh water sediment	0.053 mg/kg
	Sewage treatment plant	100 mg/l
	Marine sediment	0.005 mg/kg

#### 8.2 Exposure controls

#### Engineering measures

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.



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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 equipment					
Eye protection	:	Tightly fitting safety goggles Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded. Equipment should conform to EN 166			
Hand protection					
Remarks Skin and body protection		No special protective equipment required. No special protective equipment required. Select skin and body protection based on the physical job requirements.			
Respiratory protection	:	No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.			
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.			

### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Physical state Colour	:	liquid yellow
Odour Odour Threshold	:	No data available No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flammability	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	80 °C Method: Pensky-Martens closed cup



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Auto-	ignition temperature	:	345 °C	
D	mposition temperature ecomposition mperature	:	No data available 5.0 Concentration: 1	
Visco Vi	osity scosity, dynamic	:	No data available	9
Vi	scosity, kinematic	:	No data available	9
W	bility(ies) /ater solubility blubility in other solvents	:	No data available No data available	-
octar	ion coefficient: n- nol/water our pressure	:	No data available	
Dens	ity	:	1.054 g/cm3	
Relat	ive vapour density	:	No data available	9
	cle characteristics article size	:	No data available	e
9.2 Other	information			
Explo	osives	:	Not explosive	
Oxidi	zing properties	:	The substance o	r mixture is not classified as oxidizing.
Evap	oration rate	:	No data available	9
<b>_</b> 10p	oradorrado	•		-

## **SECTION 10: Stability and reactivity**

	Reactivity None reasonably foreseeable.		
10.2	Chemical stability Stable under normal conditions		
10.3	Possibility of hazardous read	tio	ns
	Hazardous reactions	:	No dangerous reaction known under conditions of normal use.
10.4	Conditions to avoid		
	Conditions to avoid	:	No decomposition if used as directed.



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Acute oral toxicity : LD50 (Rat, female): 55 mg/kg



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		Acute toxicity estimate: 100.0 mg/kg Method: Converted acute toxicity point estimate
Acute	e inhalation toxicity	: LC50 (Rat, male and female): > 0.56 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute	e dermal toxicity	<ul> <li>LD50 (Rat, male and female): &gt; 2,000 mg/kg Assessment: The substance or mixture has no acute derr toxicity</li> </ul>
Skin	corrosion/irritation	
Prod	uct:	
Spec		: Rabbit
Resu		: No skin irritation
Rema	arks	: Based on data from similar materials
<u>Com</u>	ponents:	
Prop	anoic acid, 2-hydrox	r-, butyl ester, (2S)-:
Resu	llt	: Irritating to skin.
difen	ioconazole:	
Spec	ies	: Rabbit
Resu	llt	: No skin irritation
benz	ovindiflupyr (ISO):	
Spec		: Rabbit
Resu	llt	: No skin irritation
Seric	ous eye damage/eye	rritation
Prod	uct:	
Spec	ies	: Rabbit
Resu		: Irritation to eyes, reversing within 21 days
Rema	arks	: Based on data from similar materials
Com	ponents:	
Prop	anoic acid, 2-hydrox	/-, butyl ester, (2S)-:
Resu	llt	: Eye irritation
	ioconazole:	
difen		: Rabbit
<b>difen</b> Spec	ies	
		: Irritation to eyes, reversing within 7 days
Spec Resu		



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Resul	t	:	No eye irritation	
Resp	iratory or skin sensit	isatio	'n	
<u>Produ</u>	uct:			
Test 1	Гуре	:	Buehler Test	
Speci		:	Rabbit	
Resul	t	:		ensitisation on laboratory animals.
Rema	ırks	:	Based on data f	om similar materials
<u>Comp</u>	oonents:			
difen	oconazole:			
Speci		:	Guinea pig	
Resul	t	:	Did not cause se	ensitisation on laboratory animals.
benzo	ovindiflupyr (ISO):			
Test 7	Гуре	:	mouse lymphom	a cells
Speci		:	Mouse	
Resul	t	:	Did not cause se	ensitisation on laboratory animals.
Germ	cell mutagenicity			
<u>Comp</u>	oonents:			
difen	oconazole:			
Germ	cell mutagenicity-	:	Animal testing d	id not show any mutagenic effects.
	ssment			
benzo	ovindiflupyr (ISO):			
	cell mutagenicity- ssment	:	Animal testing d	id not show any mutagenic effects.
Carci	nogenicity			
<u>Com</u>	oonents:			
difen	oconazole:			
Carcii	nogenicity -	:	Weight of evider	nce does not support classification as a
	ssment			two-year feeding study of mice, an oncoger
				in the livers of males and females., The
			observed tumors	do not appear to be relevant for men.
benzo	ovindiflupyr (ISO):			
Carci	nogenicity -	:	Weight of evider	nce does not support classification as a
	ssment		carcinogen, This	substance has been reported to cause
				in animal species., There is no evidence tha
			these findings a	e relevant to humans.



ASC Version 1.2		<b>NIIY</b> Revision Date: 08.04.2021	-	DS Number: 00044618415	This version replaces all previous versions.
R	eprod	uctive toxicity			
	-	nents:			
di	ifenoc	onazole:			
	eprodu ssessr	uctive toxicity - nent	:	No toxicity to repr	roduction
		indiflupyr (ISO):			
	eprodu ssessr	uctive toxicity - nent	:	No toxicity to rep	roduction
S	тот -	single exposure			
<u>C</u> (	ompo	nents:			
	<b>enzov</b> ssessr	<b>indiflupyr (ISO):</b> nent	:	The substance or organ toxicant, si	r mixture is not classified as specific target ngle exposure.
S	STOT - repeated exposure				
<u>C</u>	ompo	nents:			
	<b>enzov</b> ssessr	<b>indiflupyr (ISO):</b> nent	:		r mixture is not classified as specific target appeated exposure.
R	epeate	ed dose toxicity			
<u>C</u> (	ompo	nents:			
	if <b>enoc</b> emark	<b>onazole:</b> s	:	No adverse effec	t has been observed in chronic toxicity tests.
	<b>enzov</b> emark	<b>indiflupyr (ISO):</b> s	:	No adverse effec	t has been observed in chronic toxicity tests.
11.2 In	nforma	ation on other hazar	ds		
E	Endocrine disrupting properties			S	
	roduc ssessr	_	:	considered to have to REACH Article	ixture does not contain components ve endocrine disrupting properties according 57(f) or Commission Delegated regulation or Commission Regulation (EU) 2018/605 at higher.



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### **SECTION 12: Ecological information**

### 12.1 Toxicity

Components:								
Propanoic acid, 2-hydroxy-, butyl ester, (2S)-:								
Toxicity to fish		LC50 (Fish): 75 mg/l Exposure time: 96 h						
Ecotoxicology Assessment								
Acute aquatic toxicity	:	This product has no known ecotoxicological effects.						
Chronic aquatic toxicity	:	This product has no known ecotoxicological effects.						
difenoconazole:								
Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 1.1 mg/l Exposure time: 96 h						
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.77 mg/l Exposure time: 48 h						
		EC50 (Americamysis): 0.15 mg/l Exposure time: 96 h						
Toxicity to algae/aquatic plants	:	EC50 (Navicula pelliculosa (Freshwater diatom)): 0.091 mg/l Exposure time: 72 h						
		NOEC (Navicula pelliculosa (Freshwater diatom)): 0.053 mg/l Exposure time: 72 h						
		ErC50 (Desmodesmus subspicatus (green algae)): 0.0876 mg/l Exposure time: 72 h						
		NOEC (Desmodesmus subspicatus (green algae)): 0.0086 mg/l Exposure time: 72 h						
M-Factor (Acute aquatic toxicity)	:	10						
Toxicity to microorganisms	:	EC50 (activated sludge): > 100 mg/l Exposure time: 3 h						
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.0076 mg/l Exposure time: 34 d Species: Pimephales promelas (fathead minnow)						
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.0056 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)						



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			NOEC: 0.0023 m Exposure time: 2 Species: Americ	28 d
M-Fac toxicit	ctor (Chronic aquatic y)	:	10	
benzo	ovindiflupyr (ISO):			
Toxici	ty to fish	:	LC50 (Oncorhyn Exposure time: 9	chus mykiss (rainbow trout)): 0.0091 mg/l 96 h
			LC50 (Cyprinus Exposure time: 9	carpio (Carp)): 0.0035 mg/l 96 h
	ty to daphnia and other ic invertebrates	:	EC50 (American Exposure time: 9	nysis): 0.056 mg/l 96 h
Toxici plants	ty to algae/aquatic	:	ErC50 (Raphidoo 0.89 mg/l Exposure time: 9	celis subcapitata (freshwater green alga)): : 96 h
			NOEC (Raphido 0.42 mg/l End point: Growt Exposure time: 9	
			ErC50 (Skeleton Exposure time: 7	ema costatum (marine diatom)): 0.55 mg/l 72 h
			NOEC (Skeleton End point: Growt Exposure time: 7	
M-Fac toxicit	ctor (Acute aquatic y)	:	100	
Toxici	ty to microorganisms	:	EC50 (activated Exposure time: 3	sludge): > 1,000 mg/l 3 h
Toxici toxicit	ty to fish (Chronic y)	:	NOEC: 0.00095 Exposure time: 3 Species: Pimeph Test Type: Early	32 d nales promelas (fathead minnow)
aquati	ty to daphnia and other ic invertebrates nic toxicity)	:	NOEC: 0.015 mg Exposure time: 2 Species: Daphni	
			NOEC: 0.0074 m Exposure time: 2 Species: Americ	28 d
M-Fac	ctor (Chronic aquatic	:	100	



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toxic	ity)			
12.2 Pers	sistence and degradabil	ity		
Com	ponents:			
-	<b>banoic acid, 2-hydroxy-,</b> egradability	bu :		iodegradable.
	noconazole: egradability	:	Result: Not readi	ly biodegradable.
Stab	ility in water	:	Degradation half Remarks: Produc	life: 1 d ct is not persistent.
	<b>zovindiflupyr (ISO):</b> egradability	:	Result: Not readi	ly biodegradable.
12.3 Bioa	accumulative potential			
Com	ponents:			
	noconazole: ccumulation	:	Remarks: High b	ioaccumulation potential.
	tion coefficient: n- nol/water	:	log Pow: 4.4 (25	°C)
	covindiflupyr (ISO): ccumulation	:	Remarks: Does r	not bioaccumulate.
	tion coefficient: n- nol/water	:	log Pow: 4.3 (25	°C)
12.4 Mob	ility in soil			
Com	ponents:			
Distr envir	noconazole: ibution among onmental compartments ility in soil	:		
Distr	zovindiflupyr (ISO): ibution among	:	Remarks: Slightly	/ mobile in soils
	onmental compartments ults of PBT and vPvB as	sse	ssment	
	luct:			
	essment	:		nixture contains no components considered stent, bioaccumulative and toxic (PBT), or



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		very persiste 0.1% or high	ent and very bioaccumulative (vPvB) at levels of ner
Com	ponents:		
difer	noconazole:		
Asse	essment	bioaccumula	nce is not considered to be persistent, ating and toxic (PBT) This substance is not to be very persistent and very bioaccumulating
benz	ovindiflupyr (ISO):		
Asse	essment	bioaccumula	nce is not considered to be persistent, ating and toxic (PBT) This substance is not to be very persistent and very bioaccumulating
12.6 End	ocrine disrupting prop	erties	
Proc	luct:		
Asse	ssment	considered t to REACH A (EU) 2017/2	nce/mixture does not contain components to have endocrine disrupting properties according Article 57(f) or Commission Delegated regulation 100 or Commission Regulation (EU) 2018/605 at % or higher.
12.7 Othe	er adverse effects		
No d	ata available		
SECTIO	N 13: Disposal consi	derations	
13.1 Was	te treatment methods		
Prod	uct	chemical or Do not dispo Where poss incineration.	s not practicable, dispose of in compliance with
Cont	aminated packaging	Triple rinse Empty conta handling site	ining contents. containers. ainers should be taken to an approved waste e for recycling or disposal. se empty containers.



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### **SECTION 14: Transport information**

#### 14.1 UN number or ID number

	ADN	:	UN 3082
	ADR	:	UN 3082
	RID	:	UN 3082
	IMDG	:	UN 3082
	ΙΑΤΑ	:	UN 3082
14.2	2 UN proper shipping name		
	ADN	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZOVINDIFLUPYR AND DIFENOCONAZOLE)
	ADR	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZOVINDIFLUPYR AND DIFENOCONAZOLE)
	RID	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZOVINDIFLUPYR AND DIFENOCONAZOLE)
	IMDG	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZOVINDIFLUPYR AND DIFENOCONAZOLE)
	ΙΑΤΑ	:	Environmentally hazardous substance, liquid, n.o.s. (BENZOVINDIFLUPYR AND DIFENOCONAZOLE)
14.3	Transport hazard class(es)		
	ADN	:	9
	ADR	:	9
	RID	:	9
	IMDG	:	9
	ΙΑΤΑ	:	9
14.4	Packing group		
	ADN Packing group Classification Code Hazard Identification Number Labels	: : : : : : : : : : : : : : : : : : : :	III M6 90 9
	ADR Packing group Classification Code Hazard Identification Number Labels Tunnel restriction code	:	III M6 90 9 (-)



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Class	ng group ification Code rd Identification Number s	: III : M6 : 90 : 9	
<b>IMDG</b> Packi Label EmS	ng group s	: III : 9 : F-A, S-F	
Packi aircra Packi	ng instruction (LQ) ng group	: 964 : Y964 : III : Miscellaneous	S
Packi (pass Packi	(Passenger) ng instruction enger aircraft) ng instruction (LQ) ng group s	: 964 : Y964 : III : Miscellaneous	S
4.5 Envir	onmental hazards		
<b>ADN</b> Enviro	onmentally hazardous	: yes	
<b>ADR</b> Enviro	onmentally hazardous	: yes	
<b>RID</b> Enviro	onmentally hazardous	: yes	
<b>IMDG</b> Marin	i e pollutant	: yes	
	(Passenger)	: yes	
	(Cargo) onmentally hazardous	: yes	

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

#### **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture



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the m		ne manufacture, placing or ain dangerous substances Annex XVII)		Conditions of restr following entries s considered: Number on list 3 xylene	
	CH - Candidate List of ern for Authorisation (	Substances of Very High Article 59).	:	Not applicable	
REAG		s subject to authorisation	:	Not applicable	
Regu	,	009 on substances that	:	Not applicable	
Regu		on persistent organic	:	Not applicable	
Regu Parlia impor	lation (EC) No 649/20 ament and the Council rt of dangerous chemi	concerning the export and cals		Not applicable	on the control o
		18/EU of the European Pa olving dangerous substan		and of the Council	
				Ouantity 1	Quantity 2

		Quantity 1	Quantity 2
E1	ENVIRONMENTAL	100 t	200 t
	HAZARDS		

#### Other regulations:

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

#### **SECTION 16: Other information**

#### Full text of H-Statements

H301 H302 H315 H319 H331 H400	:	Toxic if swallowed. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Toxic if inhaled. Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
Full text of other abbreviation	ons	
Acute Tox. Aquatic Acute Aquatic Chronic Eye Irrit. Skin Irrit. GB EH40	:	Acute toxicity Short-term (acute) aquatic hazard Long-term (chronic) aquatic hazard Eye irritation Skin irritation UK. EH40 WEL - Workplace Exposure Limits



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GB EH40 / TWA

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Long-term exposure limit (8-hour TWA reference period)

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ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road: AIIC - Australian Inventory of Industrial Chemicals: ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; 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 Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration: NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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 Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further Information				
Classification of the mixture:		Classification procedure:		
Acute Tox. 4	H302	Based on product data or assessment		
Eye Irrit. 2	H319	Based on product data or assessment		
Aquatic Acute 1	H400	Calculation method		
Aquatic Chronic 1	H410	Calculation method		

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 text.

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### **1.1 Product identifier**

Trade name	:	INSTRATA ELITE
Design code	:	A20323D
Product Registration Number	:	MAPP 17976

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture	:	Fungicide
Recommended restrictions on use	:	professional use

### **1.3 Details of the supplier of the safety data sheet**

Company	:	Syngenta UK Limited CPC4, Capital Park Fulbourn, Cambridge CB21 5XE United Kingdom
Telephone	:	+44 (0) 1223 883400
Telefax	:	+44 (0) 1223 882195
E-mail address of person responsible for the SDS	:	customer.services@syngenta.com

#### 1.4 Emergency telephone number

Emergency telephone	: +44 1484 538444
number	

### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)		
Short-term (acute) aquatic hazard,	H400: Very toxic to aquatic life.	
Category 1		
Long-term (chronic) aquatic hazard,	H410: Very toxic to aquatic life with long lasting	
Category 1	effects.	



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#### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)			
Hazard pictograms	:	₩2	
Signal word	:	Warning	
Hazard statements	:	H410 Very toxic to aquatic life with long lasting effects.	
Supplemental Hazard Statements	:	EUH401 To avoid risks to human health and the environment, comply with the instructions for use.	
		EUH208 Contains 1,2-benzisothiazol-3-one. May produce an allergic reaction.	
Precautionary statements	:	P273 Avoid release to the environment.	
·····	-	Response:	
		P391 Collect spillage.	
		<b>Disposal:</b> P501 Dispose of contents/container to a licensed hazardous- waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-	

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

hazardous waste.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

#### Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		· · ·
	Registration number		
fludioxonil (ISO)	131341-86-1	Aquatic Acute 1;	>= 2.5 - < 10
		H400	



sion	Revision Date: 17.05.2021	SDS Number: S00036476970	This version replaces all previ	ous versions
		608-069-00-4	Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 10	
difenc	oconazole	119446-68-3	Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 2.5 - < 7
	ium cyl(sulphonatophenoxy Jlphonate	/)benz 28519-02-0 249-063-8	Eye Dam. 1; H318 Aquatic Chronic 2; H411	>= 1 - < 2.
1,2-b	enzisothiazol-3(2H)-on	220-120-9 613-088-00-6 01-2120761540-6	Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute aquatic toxicity): 1 specific concentration limit Skin Sens. 1; H317 >= 0,05 %	>= 0.025 - 0.05
brono	pol (INN)	52-51-7 200-143-0 603-085-00-8	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute	>= 0.025 - 0.1
			aquatic toxicity): 10 M-Factor (Chronic	



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		aquatic toxicity): 1	
For explanation of abbreviations see	section 16.		

SECTION 4: First aid measures

4.1 Description of first aid measur	
General advice	: Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.
If inhaled	<ul> <li>Move the victim to fresh air.</li> <li>If breathing is irregular or stopped, administer artificial respiration.</li> <li>Keep patient warm and at rest.</li> <li>Call a physician or poison control centre immediately.</li> </ul>
In case of skin contact	<ul> <li>Take off all contaminated clothing immediately.</li> <li>Wash off immediately with plenty of water.</li> <li>If skin irritation persists, call a physician.</li> <li>Wash contaminated clothing before re-use.</li> </ul>
In case of eye contact	<ul> <li>Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.</li> <li>Remove contact lenses.</li> <li>Immediate medical attention is required.</li> </ul>
If swallowed	<ul> <li>If swallowed, seek medical advice immediately and show this container or label.</li> <li>Do NOT induce vomiting.</li> </ul>
4.2 Most important symptoms and	d effects, both acute and delayed
Symptoms	: Nonspecific
Cymptomo	No symptoms known or expected.
4.3 Indication of any immediate m	edical attention and special treatment needed
Treatment	: There is no specific antidote available. Treat symptomatically.
SECTION 5: Firefighting measu	ures
5.1 Extinguishing media	
Suitable extinguishing media	: Extinguishing media - small fires

Suitable extinguishing media	:	Extinguishing media - small fires Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Extinguishing media - large fires Alcohol-resistant foam	
		or Water spray	



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	Unsuitable extinguishing media	:	Do not use a sol fire.	id water stream as it may scatter and spread
5.2 S	pecial hazards arising from	the	e substance or m	ixture
	Specific hazards during irefighting	:	will produce den products of com	ontains combustible organic components, fire se black smoke containing hazardous oustion (see section 10). omposition products may be a hazard to
5.3 A	dvice for firefighters			
	Special protective equipment for firefighters	:	Wear full protect apparatus.	ive clothing and self-contained breathing
F	Further information	:	courses.	off from fire fighting to enter drains or water ainers exposed to fire with water spray.

### **SECTION 6: Accidental release measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Refer to protective measures listed in sections 7 and 8.
<b>6.2 Environmental precautions</b> 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.

#### 6.3 Methods and material for containment and cleaning up

:

Methods for 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.
-------------------------	---	--

#### 6.4 Reference to other sections

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

### **SECTION 7: Handling and storage**

### 7.1 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.



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		For personal pre	otection see section 8.
7.2 Condit	tions for safe storage	, including any incor	npatibilities
areas and containers tightly closed of the reach o		tightly closed in	age conditions required. Keep containers a dry, cool and well-ventilated place. Keep out children. Keep away from food, drink and tuffs.
7.3 Specif	ic end use(s)		
Speci	fic use(s)	· · ·	safe use of this product, please refer to the ons laid down on the product label.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
propane-1,2,3-triol	56-81-5	TWA (Mist)	10 mg/m3	GB EH40
fludioxonil (ISO)	131341-86- 1	TWA	5 mg/m3	Syngenta
difenoconazole	119446-68- 3	TWA	5 mg/m3	Syngenta

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Cubatanaa nama			Detential health	Value
Substance name	End Use	Exposure routes	Potential health effects	Value
1,2-benzisothiazol- 3(2H)-one	Workers	Inhalation	Long-term systemic effects	6.81 mg/m3
	Workers	Dermal	Long-term systemic effects	0.966 mg/kg
	Consumers	Inhalation	Long-term systemic effects	1.2 mg/m3
	Consumers	Dermal	Long-term systemic effects	0.345 mg/kg
bronopol (INN)	Workers	Inhalation	Long-term systemic effects	3.5 mg/m3
	Workers	Inhalation	Acute systemic effects	10.5 mg/m3
	Workers	Inhalation	Long-term local effects	2.5 mg/m3
	Workers	Inhalation	Acute local effects	2.5 mg/m3
	Workers	Dermal	Long-term systemic effects	2 mg/kg
	Workers	Dermal	Acute systemic effects	6 mg/kg
	Workers	Dermal	Long-term local effects	0.008 mg/cm2
	Workers	Dermal	Acute local effects	0.008 mg/cm2
	Consumers	Inhalation	Long-term systemic	0.6 mg/m3



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		effects	
Consume	ers Inhalation	Acute systemic effects	1.8 mg/m3
Consume	ers Inhalation	Long-term local effects	0.6 mg/m3
Consume	ers Inhalation	Acute local effects	0.6 mg/m3
Consume	ers Dermal	Long-term systemic effects	0.7 mg/kg
Consume	ers Dermal	Acute systemic effects	2.1 mg/kg
Consume	ers Dermal	Long-term local effects	0.004 mg/cm2
Consume	ers Dermal	Acute local effects	0.004 mg/cm2
Consume	ers Oral	Long-term systemic effects	0.18 mg/kg
Consume	ers Oral	Acute systemic effects	0.5 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
1,2-benzisothiazol-3(2H)-one	Fresh water	0.00403 mg/l
	Marine water	0.000403 mg/l
	Sewage treatment plant	1.03 mg/l
	Fresh water sediment	0.0499 mg/kg
	Marine sediment	0.00499 mg/kg
	Freshwater - intermittent	0.0011 mg/l
	Marine water - intermittent	0.000110 mg/l
	Soil	3 mg/kg
bronopol (INN)	Fresh water	0.01 mg/l
	Marine water	0.001 mg/l
	Freshwater - intermittent	0.003 mg/l
	Sewage treatment plant	0.43 mg/l
	Fresh water sediment	0.041 mg/kg
	Marine sediment	0.003 mg/kg
	Soil	0.5 mg/kg

#### 8.2 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 equipment

Eye protection Hand protection	:	No special protective equipment required.
Remarks Skin and body protection		No special protective equipment required. No special protective equipment required.



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		Select skin ar requirements.	nd body protection based on the physical job
Respiratory protection		required. When workers	espiratory protective equipment normally s are facing concentrations above the exposure t use appropriate certified respirators.
Protective measures		over the use on When selecting	chnical measures should always have priority of personal protective equipment. ng personal protective equipment, seek rofessional advice.

## **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Physical state Colour	:	liquid white
Odour Odour Threshold	:	No data available No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flammability	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	Method: Pensky-Martens closed cup does not flash
Auto-ignition temperature	:	425 °C
Decomposition temperature Decomposition temperature pH	:	No data available 7.3 Concentration: 100 %
Viscosity Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Solubility(ies) Water solubility	:	No data available



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	Solubility in other solvents	:	No data available	
	artition coefficient: n- tanol/water	:	No data available	)
Va	apour pressure	:	No data available	
De	ensity	:	1.1 g/cm3 (25 °C	)
Re	elative vapour density	:	No data available	)
Pa	article characteristics Particle size	:	No data available	
9.2 Oth	ner information			
Ex	plosives	:	Not explosive	
O	kidizing properties	:	The substance o	r mixture is not classified as oxidizing.
	aporation rate	•	No data available	

### 10.1 Reactivity None reasonably foreseeable. 10.2 Chemical stability Stable under normal conditions. 10.3 Possibility of hazardous reactions Hazardous reactions : No dangerous reaction known under conditions of normal use. 10.4 Conditions to avoid Conditions to avoid 2 No decomposition if used as directed. 10.5 Incompatible materials Materials to avoid None known. : **10.6 Hazardous decomposition products** Hazardous decomposition : No hazardous decomposition products are known. products **SECTION 11: Toxicological information** 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of : Ingestion exposure Inhalation Skin contact Eye contact



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Αςι	ite toxicity		
Pro	duct:		
	te oral toxicity		Rat, female): > 2,000 mg/kg ment: The substance or mixture has no acute oral
Acu	te inhalation toxicity	Exposu Test atr Assessi	Rat, male and female): > 2.65 mg/l re time: 4 h nosphere: dust/mist ment: The substance or mixture has no acute on toxicity
Acu	te dermal toxicity		Rat, male and female): > 2,000 mg/kg ment: The substance or mixture has no acute derma
<u>Cor</u>	nponents:		
flud	lioxonil (ISO):		
	te oral toxicity	: LD50 (F	Rat, male and female): > 5,000 mg/kg
Acu	te inhalation toxicity	Exposu Test atr Assessi	Rat, male and female): > 2.6 mg/l re time: 4 h nosphere: dust/mist ment: The substance or mixture has no acute on toxicity
Acu	te dermal toxicity		Rat, male and female): > 2,000 mg/kg ment: The substance or mixture has no acute derma
dife	noconazole:		
Acu	te oral toxicity	Assessi	Rat, male and female): 1,453 mg/kg ment: The component/mixture is moderately toxic af ngestion.
Acu	te inhalation toxicity	Exposu Test atr Assessi	Rat, male and female): > 3,300 mg/m3 re time: 4 h nosphere: dust/mist ment: The substance or mixture has no acute on toxicity
Acu	te dermal toxicity		Rabbit, male and female): > 2,010 mg/kg ment: The substance or mixture has no acute derma
1,2-	benzisothiazol-3(2H)-o	e:	
Acu	te oral toxicity	: LD50 (F	Rat, male): 670 mg/kg
Acu	te dermal toxicity		Rat, male and female): > 2,000 mg/kg ment: The substance or mixture has no acute derma



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			toxicity	
brond	opol (INN):			
	oral toxicity	:	Assessment: The single ingestion.	e component/mixture is moderately toxic aft
Acute	dermal toxicity	:	Assessment: The single contact with	e component/mixture is moderately toxic aft h skin.
Skin	corrosion/irritation			
Produ	<u>uct:</u>			
Speci Resul		:	Rabbit No skin irritation	
<u>Comp</u>	oonents:			
fludic	oxonil (ISO):			
Speci Resul		:	Rabbit No skin irritation	
		-		
	oconazole:		Dabbit	
Speci Resul		:	Rabbit No skin irritation	
1,2-be	enzisothiazol-3(2H)	-one:		
Speci		:	Rabbit	
Resul	t	:	Mild skin irritatior	1
	opol (INN):			
Resul	t	:	Irritating to skin.	
Serio	us eye damage/eye	e irritati	on	
<u>Produ</u>				
Speci Resul		:	Rabbit No eye irritation	
<u>Comp</u>	oonents:			
fludic	oxonil (ISO):			
Speci		:	Rabbit	
Resul		:	No eye irritation	
	oconazole:			
Speci		:	Rabbit	
Resul	τ	:	irritation to eyes,	reversing within 7 days



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dis	odium dodecyl(sulpho	atophenoxy)benzenesulphonate:
Re	sult	: Risk of serious damage to eyes.
1,2	e-benzisothiazol-3(2H)-c	1e:
	ecies sult	: Rabbit : Risk of serious damage to eyes.
bro	onopol (INN):	
Re	sult	: Risk of serious damage to eyes.
Re	spiratory or skin sensit	sation
	oduct:	
	st Type ecies	: Local lymph node assay (LLNA) : Mouse
•	sult	: Did not cause sensitisation on laboratory animals.
<u>Co</u>	mponents:	
flu	dioxonil (ISO):	
	ecies sult	<ul><li>Guinea pig</li><li>Did not cause sensitisation on laboratory animals.</li></ul>
dif	enoconazole:	
	ecies sult	<ul><li>Guinea pig</li><li>Did not cause sensitisation on laboratory animals.</li></ul>
1,2	e-benzisothiazol-3(2H)-c	1e:
Re	sult	: Probability or evidence of skin sensitisation in humans
Ge	rm cell mutagenicity	
<u>Co</u>	mponents:	
Ge	dioxonil (ISO): erm cell mutagenicity- sessment	: Animal testing did not show any mutagenic effects.
Ge	enoconazole: erm cell mutagenicity- sessment	: Animal testing did not show any mutagenic effects.
1,2	e-benzisothiazol-3(2H)-c	ne:
	erm cell mutagenicity- sessment	: Weight of evidence does not support classification as a ge cell mutagen.



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С	arcinogenicity			
<u>C</u>	omponents:			
fl	udioxonil (ISO):			
	arcinogenicity - ssessment	:	No evidence of ca	arcinogenicity in animal studies.
	ifenoconazole:			
	arcinogenicity - ssessment	:	Weight of evidend carcinogen	e does not support classification as a
R	eproductive toxicity			
<u>C</u>	omponents:			
fl	udioxonil (ISO):			
	eproductive toxicity - ssessment	:	No toxicity to repr	oduction
	ifenoconazole:			
	eproductive toxicity - ssessment	:	No toxicity to repr	oduction
S	TOT - single exposure			
<u>C</u>	omponents:			
b	ronopol (INN):			
A	ssessment	:		mixture is classified as specific target organ posure, category 3 with respiratory tract
R	epeated dose toxicity			
<u>C</u>	omponents:			
d	ifenoconazole:			
R	emarks	:	No adverse effect	has been observed in chronic toxicity tests.
11.2 lr	nformation on other hazar	ds		
E	ndocrine disrupting prope	ertie	S	
	roduct:			
А	ssessment	:	considered to have to REACH Article	ixture does not contain components re endocrine disrupting properties according 57(f) or Commission Delegated regulation or Commission Regulation (EU) 2018/605 at higher.



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### **SECTION 12: Ecological information**

## 12.1 Toxicity

Product:		
Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 8.1 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 15 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Raphidocelis subcapitata (freshwater green alga)): 8.2 mg/l Exposure time: 72 h
		EC10 (Raphidocelis subcapitata (freshwater green alga)): 4.5 mg/l End point: Growth rate Exposure time: 72 h
		NOEC (Raphidocelis subcapitata (freshwater green alga)): 0.5 mg/l End point: Growth rate Exposure time: 72 h
Components:		
fludioxonil (ISO):		
Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.23 mg/l Exposure time: 96 h
		LC50 (Pimephales promelas (fathead minnow)): 0.7 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.4 mg/l Exposure time: 48 h
		EC50 (Americamysis): 0.27 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	:	ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 0.44 mg/l Exposure time: 96 h
		NOEC (Raphidocelis subcapitata (freshwater green alga)): 0.132 mg/l End point: Growth rate Exposure time: 96 h
		ErC50 (Skeletonema costatum (marine diatom)): 0.43 mg/l Exposure time: 96 h



/ersic 3.0	on	Revision Date: 17.05.2021		9S Number: 0036476970	This version replaces all previous versions
				NOEC (Skeletone End point: Growth Exposure time: 96	
	/I-Facto oxicity)	or (Acute aquatic	:	1, M-Factor=1 us	ed for transport classification
Т	oxicity	to microorganisms	:	EC50 (activated s Exposure time: 3	sludge): > 1,000 mg/l h
	oxicity oxicity)	to fish (Chronic	:	NOEC: 0.04 mg/l Exposure time: 28 Species: Oncorhy	3 d /nchus mykiss (rainbow trout)
				NOEC: 0.018 mg. Exposure time: 1 Species: Pimepha	
а	quatic	to daphnia and other invertebrates c toxicity)	:	Exposure time: 2	
				NOEC: 0.018 mg Exposure time: 28 Species: America	3 d
	/I-Facto oxicity)	or (Chronic aquatic	:	10, M-Factor=1 u	sed for transport classification
-		<b>conazole:</b> to fish	:	LC50 (Oncorhync Exposure time: 96	hus mykiss (rainbow trout)): 1.1 mg/l δ h
		to daphnia and other invertebrates	:	EC50 (Daphnia m Exposure time: 48	nagna (Water flea)): 0.77 mg/l 3 h
				EC50 (Americam Exposure time: 96	
	oxicity lants	to algae/aquatic	:	EC50 (Navicula p Exposure time: 72	elliculosa (Freshwater diatom)): 0.091 mg/ 2 h
				NOEC (Navicula Exposure time: 72	pelliculosa (Freshwater diatom)): 0.053 mg 2 h
				ErC50 (Desmode mg/l Exposure time: 72	smus subspicatus (green algae)): 0.0876 2 h
				EC10 (Desmodes End point: Growth Exposure time: 72	
N	/I-Facto	or (Acute aquatic	:	10	



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toxicity	/)			
Toxicit	ty to microorganisms	:	EC50 (activated slu Exposure time: 3 h	dge): > 100 mg/l
Toxicit toxicity	ty to fish (Chronic /)	:	NOEC: 0.0076 mg/l Exposure time: 34 c Species: Pimephale	
aquati	ty to daphnia and other c invertebrates nic toxicity)	:	NOEC: 0.0056 mg/l Exposure time: 21 c Species: Daphnia n	t
			NOEC: 0.0023 mg/l Exposure time: 28 o Species: Americam	t
M-Fac toxicity	tor (Chronic aquatic	:	10	
disodi	ium dodecyl(sulphona	top	henoxy)benzenesu	Iphonate:
Ecoto	xicology Assessment			
Chron	ic aquatic toxicity	:	Toxic to aquatic life	with long lasting effects.
1,2-be	enzisothiazol-3(2H)-one	e:		
Toxicit	ty to fish	:	LC50 (Oncorhynchu Exposure time: 96 h	us mykiss (rainbow trout)): 2.18 mg/l n
	ty to daphnia and other c invertebrates	:	EC50 (Daphnia ma Exposure time: 48 h	gna (Water flea)): 2.94 mg/l า
Toxicit plants	ty to algae/aquatic	:	ErC50 (Raphidoceli 0.15 mg/l Exposure time: 72 ł	s subcapitata (freshwater green alga)): n
			EC10 (Raphidocelis 0.04 mg/l End point: Growth r Exposure time: 72 h	
M-Fac toxicity	tor (Acute aquatic /)	:	1	
Toxicit toxicity	ty to fish (Chronic /)	:	NOEC: 0.3 mg/l Exposure time: 28 o Species: Oncorhyno	d chus mykiss (rainbow trout)
aquati	ty to daphnia and other c invertebrates nic toxicity)	:	NOEC: 1.7 mg/l Exposure time: 21 o Species: Daphnia (N	



/ersion 6.0	ATA ELITE Revision Date: 17.05.2021		DS Number: 00036476970	This version replaces all previous versions
bronc	opol (INN):			
	ty to algae/aquatic	:	NOEC (algae): Exposure time:	
			EC50 (algae): 0 Exposure time:	
M-Fac toxicity	ctor (Acute aquatic y)	:	10	
M-Fac toxicit	ctor (Chronic aquatic y)	:	1	
2.2 Persi	stence and degradat	oility		
<u>Comp</u>	oonents:			
fludio	xonil (ISO):			
Biode	gradability	:	Result: Not read	dily biodegradable.
Stabili	ity in water	:	Degradation ha Remarks: Persi	lf life: 450 - 700 d stent in water.
difend	oconazole:			
Biode	gradability	:	Result: Not read	dily biodegradable.
Stabili	Stability in water		Degradation ha Remarks: Prod	lf life: 1 d uct is not persistent.
1,2-b€	enzisothiazol-3(2H)-o	ne:		
	gradability	:	Result: rapidly	degradable
bronc	opol (INN):			
	gradability	:	Result: Readily	biodegradable.
2.3 Bioad	cumulative potentia	I		
<u>Comp</u>	oonents:			
fludio	oxonil (ISO):			
Bioaco	cumulation	:	Remarks: Does	not bioaccumulate.
	on coefficient: n- ol/water	:	log Pow: 4.12 (	25 °C)
	oconazole:			
Bioaco	cumulation	:	Remarks: High	bioaccumulation potential.
Dortiti	on coefficient: n-		log Pow: 4.4 (2	5 °C)



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-	ccumulation	<b>e:</b> :	Remarks: Bioacc	umulation is unlikely.
12.4 Mob	ility in soil			
Com	ponents:			
fludi	oxonil (ISO):			
	ibution among onmental compartments	:	Remarks: immob	ile
	ility in soil	:		14 d pation: 50 % (DT50) ct is not persistent.
difer	noconazole:			
	ibution among onmental compartments	:	Remarks: Low me	obility in soil.
	Stability in soil	:		149 - 187 d pation: 50 % (DT50) t is not persistent.
12.5 Res	ults of PBT and vPvB as	se	ssment	
Prod	luct:			
	essment	:	to be either persis	nixture contains no components considered stent, bioaccumulative and toxic (PBT), or nd very bioaccumulative (vPvB) at levels of
<u>Com</u>	ponents:			
fludi	oxonil (ISO):			
Asse	essment	:	bioaccumulating	not considered to be persistent, and toxic (PBT) This substance is not very persistent and very bioaccumulating
difer	noconazole:			
Asse	essment	:	bioaccumulating	anot considered to be persistent, and toxic (PBT) This substance is not very persistent and very bioaccumulating
1,2-b	penzisothiazol-3(2H)-one	e:		
	essment	:	bioaccumulating	anot considered to be persistent, and toxic (PBT) This substance is not very persistent and very bioaccumulating



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### 12.6 Endocrine disrupting properties

### Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

No data available

### **SECTION 13: Disposal considerations**

### 13.1 Waste treatment methods

Product	:	Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.
Contaminated packaging	:	Empty remaining contents. Triple rinse containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
Waste Code	:	uncleaned packagings 15 01 10, packaging containing residues of or contaminated by hazardous substances

### **SECTION 14: Transport information**

### 14.1 UN number or ID number

ADN	:	UN 3082
ADR	:	UN 3082
RID	:	UN 3082
IMDG	:	UN 3082
ΙΑΤΑ	:	UN 3082
14.2 UN proper shipping name		
ADN	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
		(FLUDIOXONIL AND DIFENOCONAZOLE)
ADR	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,



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			N.O.S. (FLUDIOXONII	. AND	DIFENOCONAZOLE)
RID		:			HAZARDOUS SUBSTANCE, LIQUID
			N.O.S. (FLUDIOXONIL	AND	DIFENOCONAZOLE)
IMDG		:	ENVIRONMEN	TALLY	HAZARDOUS SUBSTANCE, LIQUID
			N.O.S. (FLUDIOXONIL	. AND	DIFENOCONAZOLE)
ΙΑΤΑ		:			dous substance, liquid, n.o.s. DIFENOCONAZOLE)
4.3 Transpo	rt hazard class(es)				
ADN		:	9		
ADR		:	9		
RID		:	9		
IMDG		:	9		
ΙΑΤΑ		:	9		
4.4 Packing	group				
ADN					
Packing g		:			
	tion Code	÷	M6 90		
Labels		:	9		
ADR					
Packing (	group Ition Code	:	III M6		
	dentification Number	÷	90		
Labels		:	9		
	striction code	•	(-)		
<b>RID</b> Packing g			111		
	ation Code	÷	M6		
	dentification Number	:	90		
Labels		•	9		
IMDG Packing g	aroup		111		
Labels		:	9		
EmS Coo	le	:	F-A, S-F		
IATA (Ca			064		
Packing i aircraft)	nstruction (cargo	•	964		
Packing i	nstruction (LQ)	:	Y964		
Packing o Labels	group	÷	III Miscellaneous		
		•	MISCEIIAIIEOUS		

IATA (Passenger)



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(pass Pack	ing instruction senger aircraft) ing instruction (LQ)	:	964 Y964 III	
Labe	ing group Is	:	Miscellaneous	
14.5 Envi	ronmental hazards			
<b>ADN</b> Envir	onmentally hazardous	:	yes	
<b>ADR</b> Envir	onmentally hazardous	:	yes	
<b>RID</b> Envir	onmentally hazardous	:	yes	
<b>IMDO</b> Marir	<b>G</b> ne pollutant	:	yes	
	( <b>Passenger)</b> onmentally hazardous	:	yes	
	( <b>Cargo)</b> onmentally hazardous	:	yes	

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

### **SECTION 15: Regulatory information**

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 3
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
Seveso III: Directive 2012/18/EU of the European Parlia major-accident hazards involving dangerous substances		and of the Council on the control of

	0	Quantity 1	Quantity 2
E1	ENVIRONMENTAL	100 t	200 t



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### HAZARDS

### Other regulations:

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Use plant protection products safely. Always read the label and product information before use.

### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

### **SECTION 16: Other information**

#### Full text of H-Statements

H302 :	Harmful if swallowed.
H312 :	Harmful in contact with skin.
H315 :	Causes skin irritation.
H317 :	May cause an allergic skin reaction.
H318 :	Causes serious eye damage.
H319 :	Causes serious eye irritation.
H335 :	May cause respiratory irritation.
H400 :	Very toxic to aquatic life.
H410 :	Very toxic to aquatic life with long lasting effects.
H411 :	Toxic to aquatic life with long lasting effects.

### Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT SE	:	Specific target organ toxicity - single exposure
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -



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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 Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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 Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail: SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

**Classification of the mixture:** 

Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Calculation method Calculation method

**Classification procedure:** 

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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 text.

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

### **1.1 Product identifier**

Trade name	:	MEDALLION TL
Design code	:	A17856B
Product Registration Number	:	MAPP 15287

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture	:	Fungicide
Recommended restrictions on use	:	professional use

### **1.3 Details of the supplier of the safety data sheet**

Company	:	Syngenta UK Limited CPC4, Capital Park Fulbourn, Cambridge CB21 5XE United Kingdom
Telephone	:	+44 (0) 1223 883400
Telefax	:	+44 (0) 1223 882195
E-mail address of person responsible for the SDS	:	customer.services@syngenta.com

### 1.4 Emergency telephone number

Emergency telephone	: +44 1484 538444
number	

### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

### Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard,	H410: Very toxic to aquatic life with long lasting
Category 1	effects.



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### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)		
Hazard pictograms	:	
Signal word	:	Warning
Hazard statements	:	H410 Very toxic to aquatic life with long lasting effects.
Supplemental Hazard Statements	:	EUH208 Contains 1,2-benzisothiazol-3-one. May produce an allergic reaction.
		EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
Precautionary statements	:	<ul><li>P102 Keep out of reach of children.</li><li>P270 Do not eat, drink or smoke when using this product.</li><li>P273 Avoid release to the environment.</li></ul>
		Response:
		P391 Collect spillage.
		Disposal:
		P501 Dispose of contents/container to a licensed hazardous- waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

hazardous waste.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

### Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		



ersion .0	Revision Date: 11.03.2021	SDS Number: S1427722687	This version replaces all previo	ous versions.
fludio	xonil (ISO)	131341-86-1 608-069-00-4	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 10	>= 10 - < 20
	oxy-1,2-ethanediyl), -[2,4 phenylethyl)phenyl] xy-	,6- 99734-09-5	Aquatic Chronic 3; H412	>= 1 - < 2.5
	pol (INN)	52-51-7 200-143-0 603-085-00-8	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1	>= 0.025 - < 0.1
1,2-b	enzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6 01-212076154	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute aquatic toxicity): 1 specific concentration limit Skin Sens. 1; H317 >= 0,05 %	>= 0.025 - < 0.05

For explanation of abbreviations see section 16.

### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

General advice

: Have the product container, label or Safety Data Sheet with



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			alling the emergency number, a poison control ysician, or going for treatment.
lf inha	lled	If breathing respiration. Keep patien	ctim to fresh air. is irregular or stopped, administer artificial t warm and at rest. cian or poison control centre immediately.
In cas	e of skin contact	Wash off im If skin irritati	contaminated clothing immediately. mediately with plenty of water. on persists, call a physician. minated clothing before re-use.
In cas	e of eye contact	for at least f Remove co	diately with plenty of water, also under the eyelids, 15 minutes. ntact lenses. nedical attention is required.
lf swa	llowed	container or	l, seek medical advice immediately and show this label. uce vomiting.
4.2 Most i	mportant symptoms a	nd effects, both	acute and delayed
Symp		: Nonspecific	-
4.3 Indicat	tion of any immediate	medical attentio	n and special treatment needed
Treatr	nent	: There is no Treat sympt	specific antidote available. omatically.
SECTION	5: Firefighting meas	sures	
5.1 Exting	uishing media		
Suitat	ble extinguishing media	Use water s carbon diox Extinguishir Alcohol-resi or	ig media - large fires stant foam
		Water spray	
Unsui media	table extinguishing	: Do not use a fire.	a solid water stream as it may scatter and spread
5.2 Specia	I hazards arising from	the substance	or mixture
Speci firefigl	fic hazards during hting	will produce products of	uct contains combustible organic components, fire dense black smoke containing hazardous combustion (see section 10). decomposition products may be a hazard to



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			health.	
5.3 Adv	rice for firefighters			
	ecial protective equipment firefighters	:	Wear full prote apparatus.	ective clothing and self-contained breathing
Fu	rther information	:	courses.	un-off from fire fighting to enter drains or water ontainers exposed to fire with water spray.

### **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures				
Personal precautions	:	Refer to protective measures listed in sections 7 and 8.		
6.2 Environmental precautions				
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.		
6.3 Methods and material for containment and cleaning up				

Methods for cleaning up	<ul> <li>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).</li> <li>Clean contaminated surface thoroughly.</li> <li>Clean with detergents. Avoid solvents.</li> <li>Retain and dispose of contaminated wash water.</li> </ul>

### 6.4 Reference to other sections

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

### **SECTION 7: Handling and storage**

7.1 <b>Precautions for safe handling</b> 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.
7.2 Conditions for safe storage, inc	luding any incompatibilities
Requirements for storage : areas and containers	No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.
7.3 Specific end use(s) Specific use(s) :	For proper and safe use of this product, please refer to the



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approval conditions laid down on the product label.

### **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
fludioxonil (ISO)	131341-86- 1	TWA	5 mg/m3	Syngenta
propane-1,2-diol	57-55-6	TWA (particles)	10 mg/m3	GB EH40
		TWA (Total vapour and particles)	150 ppm 474 mg/m3	GB EH40

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
propane-1,2-diol	Workers	Inhalation	Long-term systemic effects	168 mg/m3
	Consumers	Inhalation	Long-term local effects	10 mg/m3
	Consumers	Inhalation	Long-term systemic effects	30 mg/m3
	Workers	Inhalation	Long-term local effects	10 mg/m3
bronopol (INN)	Workers	Inhalation	Long-term systemic effects	3.5 mg/m3
	Workers	Inhalation	Acute systemic effects	10.5 mg/m3
	Workers	Inhalation	Long-term local effects	2.5 mg/m3
	Workers	Inhalation	Acute local effects	2.5 mg/m3
	Workers	Dermal	Long-term systemic effects	2 mg/kg
	Workers	Dermal	Acute systemic effects	6 mg/kg
	Workers	Dermal	Long-term local effects	0.008 mg/cm2
	Workers	Dermal	Acute local effects	0.008 mg/cm2
	Consumers	Inhalation	Long-term systemic effects	0.6 mg/m3
	Consumers	Inhalation	Acute systemic effects	1.8 mg/m3
	Consumers	Inhalation	Long-term local effects	0.6 mg/m3
	Consumers	Inhalation	Acute local effects	0.6 mg/m3
	Consumers	Dermal	Long-term systemic effects	0.7 mg/kg
	Consumers	Dermal	Acute systemic	2.1 mg/kg



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			effects	
	Consumers	Dermal	Long-term local effects	0.004 mg/cm2
	Consumers	Dermal	Acute local effects	0.004 mg/cm2
	Consumers	Oral	Long-term systemic effects	0.18 mg/kg
	Consumers	Oral	Acute systemic effects	0.5 mg/kg
1,2-benzisothiazol- 3(2H)-one	Workers	Inhalation	Long-term systemic effects	6.81 mg/m3
	Workers	Dermal	Long-term systemic effects	0.966 mg/kg
	Consumers	Inhalation	Long-term systemic effects	1.2 mg/m3
	Consumers	Dermal	Long-term systemic effects	0.345 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
propane-1,2-diol	Fresh water	260 mg/l
	Marine water	26 mg/l
	Intermittent use/release	183 mg/l
	Sewage treatment plant	20000 mg/l
	Marine sediment	57.2 mg/kg
	Fresh water sediment	572 mg/kg
	Soil	50 mg/kg
bronopol (INN)	Fresh water	0.01 mg/l
	Marine water	0.001 mg/l
	Freshwater - intermittent	0.003 mg/l
	Sewage treatment plant	0.43 mg/l
	Fresh water sediment	0.041 mg/kg
	Marine sediment	0.003 mg/kg
	Soil	0.5 mg/kg
1,2-benzisothiazol-3(2H)-one	Fresh water	0.00403 mg/l
	Marine water	0.000403 mg/l
	Sewage treatment plant	1.03 mg/l
	Fresh water sediment	0.0499 mg/kg
	Marine sediment	0.00499 mg/kg
	Freshwater - intermittent	0.0011 mg/l
	Marine water - intermittent	0.000110 mg/l
	Soil	3 mg/kg

### 8.2 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.



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Pers	onal protective equip	ment	
	protection I protection	: No special pr	otective equipment required.
	emarks and body protection	: No special pr	otective equipment required. otective equipment required. nd body protection based on the physical job
Resp	iratory protection	required. When worker	respiratory protective equipment normally s are facing concentrations above the exposure at use appropriate certified respirators.
Prote	ective measures	: The use of te over the use When selecti	chnical measures should always have priority of personal protective equipment. ng personal protective equipment, seek rofessional advice.

### **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Physical state Colour	:	suspension beige grey to grey green
Odour Odour Threshold	:	sweetish No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flammability	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	Method: Pensky-Martens closed cup does not flash
Auto-ignition temperature	:	610 °C
Decomposition temperature Decomposition temperature	:	No data available
pH	:	5 - 9 Concentration: 1 % w/v

Viscosity



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	Viscosity, dynamic	:	77 - 233 mPa.s (	(20 °C)
			64 - 196 mPa.s (	(40 °C)
	Viscosity, kinematic	:	No data availabl	e
S	olubility(ies) Water solubility Solubility in other solvents	:	No data availabl No data availabl	
	artition coefficient: n-	:	No data availabl	e
	ctanol/water apour pressure	:	No data available	)
D	ensity	:	1.06 g/cm3 (20 °	C)
R	elative vapour density	:	No data availabl	e
Ρ	article characteristics Particle size	:	No data availabl	e
9.2 Ot	her information			
E	xplosives	:	Not explosive	
C	xidizing properties	:	The substance of	r mixture is not classified as oxidizing.
E	vaporation rate	:	No data availabl	e
S	urface tension	:	39.4 mN/m, 0.1	% w/v, 20 °C

### **SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b> None reasonably foreseeable.	
<b>10.2 Chemical stability</b> Stable under normal conditions.	
10.3 Possibility of hazardous react	ions
Hazardous reactions :	No dangerous reaction known under conditions of normal use.
10.4 Conditions to avoid	
Conditions to avoid :	No decomposition if used as directed.
10.5 Incompatible materials	
Materials to avoid :	None known.
10.6 Hazardous decomposition pro	ducts
Hazardous decomposition :	No hazardous decomposition products are known.



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### **SECTION 11: Toxicological information**

11.1 Information on hazard classes Information on likely routes of : exposure		<b>as defined in Regulation (EC) No 1272/2008</b> Ingestion Inhalation Skin contact Eye contact
Acute toxicity		Lyo oondot
Product:		
	:	LD50 (Rat, female): 5,000 mg/kg
Acute inhalation toxicity :	:	LC50 (Rat, male and female): > 2.59 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity :	:	LD50 (Rat, male and female): > 5,000 mg/kg
Components:		
fludioxonil (ISO):		
Acute oral toxicity :	:	LD50 (Rat, male and female): > 5,000 mg/kg
Acute inhalation toxicity :	:	LC50 (Rat, male and female): > 2.6 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity :	:	LD50 (Rat, male and female): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity
poly(oxy-1,2-ethanediyl), -[2,4	4,6	6-tris(1-phenylethyl)phenyl]hydroxy-:
Acute oral toxicity :	:	LD50 Oral (Rat): 5,000 mg/kg
bronopol (INN):		
Acute oral toxicity :	:	Assessment: The component/mixture is moderately toxic after single ingestion.
Acute dermal toxicity :	•	Assessment: The component/mixture is moderately toxic after single contact with skin.
1,2-benzisothiazol-3(2H)-one:		
Acute oral toxicity :	:	LD50 (Rat, male): 670 mg/kg



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Acute	dermal toxicity		e and female): > 2,000 mg/kg he substance or mixture has no acute derma
Skin	corrosion/irritation		
<u>Produ</u>	<u>ict:</u>		
Speci		: Rabbit	
Resul	t	: No skin irritation	n
<u>Com</u> p	oonents:		
fludic	oxonil (ISO):		
Speci		: Rabbit	
Resul	t	: No skin irritation	n
	opol (INN):		
Resul	t	: Irritating to skin	
1,2-be	enzisothiazol-3(2H)-	one:	
Speci	es	: Rabbit	
Resul		: Mild skin irritati	on
Resul	t	: Mild skin irritati	on
Resul	t us eye damage/eye	: Mild skin irritati	on
Resul Serio <u>Produ</u> Speci	t <b>us eye damage/eye</b> <u>uct:</u> es	: Mild skin irritation : Rabbit	
Resul Serio <u>Produ</u>	t <b>us eye damage/eye</b> <u>uct:</u> es	: Mild skin irritation	
Resul Serio <u>Produ</u> Speci Resul	t <b>us eye damage/eye</b> <u>uct:</u> es	: Mild skin irritation : Rabbit	
Resul Serio Produ Speci Resul	t <b>us eye damage/eye</b> <u>uct:</u> es t	: Mild skin irritation : Rabbit	
Resul Serio Produ Speci Resul Comp fludic Speci	t us eye damage/eye u <u>ct:</u> es t t p <u>onents:</u> pxonil (ISO): es	: Mild skin irritation : Rabbit : No eye irritation : Rabbit	1
Resul Serio Produ Speci Resul <u>Comp</u> fludic	t us eye damage/eye u <u>ct:</u> es t t p <u>onents:</u> pxonil (ISO): es	: Mild skin irritation irritation : Rabbit : No eye irritatior	1
Resul Serio Produ Speci Resul <b>Comp</b> fludic Speci Resul bronc	t us eye damage/eye uct: es t ponents: ponents: es t ppol (INN):	: Mild skin irritation irritation : Rabbit : No eye irritation : Rabbit : No eye irritation	1
Resul Serio Speci Resul Comp fludic Speci Resul	t us eye damage/eye uct: es t ponents: ponents: es t ppol (INN):	: Mild skin irritation irritation : Rabbit : No eye irritation : Rabbit : No eye irritation	1
Resul Serio Speci Resul Comp fludic Speci Resul bronc Resul	t us eye damage/eye uct: es t ponents: ponents: es t ppol (INN):	<ul> <li>Mild skin irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> </ul>	1
Resul Serio Produ Speci Resul fludic Speci Resul bronc Resul 1,2-bo Speci	t us eye damage/eye <u>uct:</u> es t <b>ponents:</b> ponents: ponents: ponents: es t ponents: ponents: ponents: ponents: t es	<ul> <li>Mild skin irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Risk of serious</li> <li>Cone:</li> <li>Rabbit</li> </ul>	n n damage to eyes.
Resul Serio Produ Speci Resul fludic Speci Resul bronc Resul	t us eye damage/eye <u>uct:</u> es t <b>ponents:</b> ponents: ponents: ponents: es t ponents: ponents: ponents: ponents: t es	<ul> <li>Mild skin irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Risk of serious</li> <li>Cone:</li> <li>Rabbit</li> </ul>	1
Resul Serio Produ Speci Resul fludic Speci Resul bronc Resul 1,2-bo Speci Resul	t us eye damage/eye <u>uct:</u> es t <b>ponents:</b> ponents: ponents: ponents: es t ponents: ponents: ponents: ponents: t es	<ul> <li>Mild skin irritation</li> <li>irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Risk of serious</li> <li>one: <ul> <li>Rabbit</li> <li>Rabbit</li> <li>Rabbit</li> <li>Risk of serious</li> </ul> </li> </ul>	n n damage to eyes.
Resul Serio Produ Speci Resul fludic Speci Resul bronc Resul 1,2-bo Speci Resul	t us eye damage/eye <u>uct:</u> es t <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b>ponents:</b> <b></b>	<ul> <li>Mild skin irritation</li> <li>irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Risk of serious</li> <li>one: <ul> <li>Rabbit</li> <li>Rabbit</li> <li>Rabbit</li> <li>Risk of serious</li> </ul> </li> </ul>	n n damage to eyes.
Resul Serio Produ Speci Resul fludic Speci Resul bronc Resul 1,2-bc Speci Resul Resul Produ Test	t us eye damage/eye <u>uct:</u> es t ponents: ponents	<ul> <li>Mild skin irritation</li> <li>irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Risk of serious</li> <li>cone: <ul> <li>Rabbit</li> <li>Rabbit</li> <li>Risk of serious</li> </ul> </li> <li>tisation</li> <li>Buehler Test</li> </ul>	n n damage to eyes.
Resul Serio Produ Speci Resul fludic Speci Resul hronc Resul Resul Resul Resul	t us eye damage/eye <u>uct:</u> es t ponents:	<ul> <li>Mild skin irritation</li> <li>irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Risk of serious</li> <li>cone: <ul> <li>Rabbit</li> <li>Risk of serious</li> </ul> </li> <li>tisation</li> <li>Buehler Test</li> <li>Guinea pig</li> </ul>	n n damage to eyes.



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<u>Comp</u>	oonents:		
fludio	oxonil (ISO):		
Speci Resul		: Guinea pig : Did not cause	sensitisation on laboratory animals.
1,2-be	enzisothiazol-3(2H)-	one:	
Resul	• •		evidence of skin sensitisation in humans
Germ	cell mutagenicity		
Comp	oonents:		
fludio	oxonil (ISO):		
	cell mutagenicity- sment	: Animal testing	did not show any mutagenic effects.
poly(	oxy-1,2-ethanediyl),	-[2,4,6-tris(1-pheny	lethyl)phenyl]hydroxy-:
	cell mutagenicity- sment	: In vitro tests c	lid not show mutagenic effects
1,2-be	enzisothiazol-3(2H)-	one:	
	cell mutagenicity- sment	: Weight of evic cell mutagen.	dence does not support classification as a gern
Carci	nogenicity		
<u>Comp</u>	oonents:		
fludio	oxonil (ISO):		
	nogenicity - ssment	: No evidence of	of carcinogenicity in animal studies.
Repro	oductive toxicity		
Comp	oonents:		
fludio	oxonil (ISO):		
Repro	oductive toxicity -	: No toxicity to	reproduction
стот	- single exposure		
Comp	oonents:		
brond	pol (INN):		
Asses	ssment		e or mixture is classified as specific target orga e exposure, category 3 with respiratory tract



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### 11.2 Information on other hazards

### Endocrine disrupting properties

### Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### **SECTION 12: Ecological information**

### 12.1 Toxicity

Product:		
Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 5.4 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 30 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Raphidocelis subcapitata (freshwater green alga)): 5.4 mg/l Exposure time: 96 h
		NOEC (Raphidocelis subcapitata (freshwater green alga)): 1 mg/l End point: Growth rate Exposure time: 96 h
		EC10 (Raphidocelis subcapitata (freshwater green alga)): 2.9 mg/l End point: Growth rate Exposure time: 96 h
Components:		
fludioxonil (ISO):		
Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.23 mg/l Exposure time: 96 h
		LC50 (Pimephales promelas (fathead minnow)): 0.7 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.4 mg/l Exposure time: 48 h
		EC50 (Americamysis): 0.27 mg/l Exposure time: 96 h
Toxicity to algae/aquatic	:	ErC50 (Raphidocelis subcapitata (freshwater green alga)): >



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plants			0.44 mg/l Exposure time: 96	6 h
			NOEC (Raphidoc 0.132 mg/l End point: Growth Exposure time: 96	
			ErC50 (Skeletone Exposure time: 96	ema costatum (marine diatom)): 0.43 mg/l 5 h
			NOEC (Skeletone End point: Growth Exposure time: 96	
M-Fac toxicity	ctor (Acute aquatic y)	:	1, M-Factor=1 use	ed for transport classification
Toxicit	ty to microorganisms	:	EC50 (activated s Exposure time: 3	sludge): > 1,000 mg/l h
Toxicit toxicity	ty to fish (Chronic y)	:	NOEC: 0.04 mg/l Exposure time: 28 Species: Oncorhy	3 d /nchus mykiss (rainbow trout)
			NOEC: 0.018 mg/ Exposure time: 1 Species: Pimepha	
aquati	ty to daphnia and other c invertebrates nic toxicity)	:	NOEC: 0.035 mg/ Exposure time: 2 <sup>-</sup> Species: Daphnia	
			NOEC: 0.018 mg/ Exposure time: 28 Species: America	3 d
M-Fac toxicity	ctor (Chronic aquatic y)	:	10, M-Factor=1 u	sed for transport classification
	<b>5xy-1,2-ethanediyl), -[</b> ź ty to fish	<b>2,4,</b> ( :		o (zebra fish)): 21 mg/l
	xicology Assessment ic aquatic toxicity	:	Harmful to aquation	c life with long lasting effects.
	p <b>ol (INN):</b> ty to algae/aquatic	:	NOEC (algae): 0. Exposure time: 72	
			EC50 (algae): 0.0 Exposure time: 72	



M-Facto toxicity)			
	or (Acute aquatic	:	10
M-Facto toxicity)	or (Chronic aquatic	:	1
1,2-ben	zisothiazol-3(2H)-one	e:	
Toxicity	to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 2.18 mg/l Exposure time: 96 h
		:	EC50 (Daphnia magna (Water flea)): 2.94 mg/l Exposure time: 48 h
Toxicity plants	to algae/aquatic	:	ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.15 mg/l Exposure time: 72 h
			EC10 (Raphidocelis subcapitata (freshwater green alga)): 0.04 mg/l End point: Growth rate Exposure time: 72 h
M-Facto toxicity)		:	1
Toxicity toxicity)		:	NOEC: 0.3 mg/l Exposure time: 28 d Species: Oncorhynchus mykiss (rainbow trout)
aquatic	invertebrates	:	NOEC: 1.7 mg/l Exposure time: 21 d Species: Daphnia (water flea)
Persist	ence and degradabil	ity	
<u>Compo</u>	nents:		
fludiox	onil (ISO):		
	. ,	:	Result: Not readily biodegradable.
Stability	r in water	:	Degradation half life: 450 - 700 d Remarks: Persistent in water.
bronon	ol (INN):		
-		:	Result: Readily biodegradable.
1,2-ben	zisothiazol-3(2H)-one	e:	
		:	Result: rapidly degradable
	Toxicity aquatic Toxicity plants M-Facto toxicity) Toxicity toxicity) Toxicity aquatic (Chronic Persist <u>Compo</u> fludiox Biodegr Stability bronop Biodegr 1,2-ben	aquatic invertebrates Toxicity to algae/aquatic plants M-Factor (Acute aquatic toxicity) Toxicity to fish (Chronic toxicity) Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) <b>Persistence and degradabil</b> <u>Components:</u> <b>fludioxonil (ISO):</b> Biodegradability Stability in water <b>bronopol (INN):</b> Biodegradability	Toxicity to daphnia and other aquatic invertebrates:Toxicity to algae/aquatic plants:M-Factor (Acute aquatic toxicity):Toxicity to fish (Chronic toxicity):Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):Persistence and degradability Components: fludioxonil (ISO): Biodegradability:Biodegradability Stability in water:bronopol (INN): Biodegradability:J.2-benzisothiazol-3(2H)-one::



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12.3	Bioaccumulative potential		
	Components:		
	fludioxonil (ISO):		
	Bioaccumulation	: Remarks: Does	not bioaccumulate.
	Partition coefficient: n- octanol/water	: log Pow: 4.12 (2	25 °C)
	1,2-benzisothiazol-3(2H)-on		
	Bioaccumulation	: Remarks: Bioad	ccumulation is unlikely.
12.4	Mobility in soil		
	Components:		
	fludioxonil (ISO):		
	Distribution among environmental compartments	: Remarks: immo	bile
	Stability in soil		e: 14 d sipation: 50 % (DT50) uct is not persistent.
12.5	Results of PBT and vPvB a	ssessment	
	Product:		
	Assessment	to be either per	mixture contains no components considered sistent, bioaccumulative and toxic (PBT), or and very bioaccumulative (vPvB) at levels of
	Components:		
	fludioxonil (ISO):		
	Assessment	bioaccumulating	is not considered to be persistent, g and toxic (PBT) This substance is not e very persistent and very bioaccumulating
	poly(oxy-1,2-ethanediyl), -[	2,4,6-tris(1-phenyle	thyl)phenyl]hydroxy-:
	Assessment	bioaccumulating	is not considered to be persistent, g and toxic (PBT) This substance is not e very persistent and very bioaccumulating
	1,2-benzisothiazol-3(2H)-on	e:	
	Assessment	: This substance bioaccumulating	is not considered to be persistent, g and toxic (PBT) This substance is not e very persistent and very bioaccumulating



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### 12.6 Endocrine disrupting properties

### Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

No data available

### **SECTION 13: Disposal considerations**

### 13.1 Waste treatment methods

Product	:	Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.
Contaminated packaging	:	Empty remaining contents. Triple rinse containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
Waste Code	:	uncleaned packagings 15 01 10, packaging containing residues of or contaminated by hazardous substances

### **SECTION 14: Transport information**

### 14.1 UN number or ID number

ADN	:	UN 3082
ADR	:	UN 3082
RID	:	UN 3082
IMDG	:	UN 3082
ΙΑΤΑ	:	UN 3082
14.2 UN proper shipping name		
ADN	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUDIOXONIL)
ADR	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,



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				N.O.S. (FLUDIOXONIL	)
	RID		:	ENVIRONMEN N.O.S. (FLUDIOXONIL	TALLY HAZARDOUS SUBSTANCE, LIQUIE )
	IMDG		:	ENVIRONMEN N.O.S. (FLUDIOXONIL	TALLY HAZARDOUS SUBSTANCE, LIQUIE )
	ΙΑΤΑ		:	Environmentally (FLUDIOXONIL	/ hazardous substance, liquid, n.o.s. )
4.3	Trans	oort hazard class(es)			
	ADN		:	9	
	ADR		:	9	
	RID		:	9	
	IMDG		:	9	
	ΙΑΤΑ		:	9	
4.4	Packir	ng group			
	ADN				
	Packin	g group	:	III	
		ication Code	:	M6	
	Labels	Identification Number	÷	90 9	
			•	9	
	ADR Packin	g group		111	
		ication Code	÷	M6	
		Identification Number	:	90	
	Labels		:	9	
		restriction code	:	(-)	
	<b>RID</b> Packin	g group		111	
		ication Code	:	M6	
		Identification Number	÷	90	
	Labels		:	9	
	IMDG				
	Packin Labels	g group	÷	III 9	
	EmS C		÷	9 F-A, S-F	
	IATA (	Cargo)			
	Packin	g instruction (cargo	:	964	
	aircraft Packin	) g instruction (LQ)		Y964	
			:		
	Packin	g group			

### IATA (Passenger)



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(pass Packi	ing instruction enger aircraft) ing instruction (LQ) ing group Is	:	964 Y964 III Miscellaneous	
14.5 Envi	ronmental hazards			
<b>ADN</b> Envir	onmentally hazardous	:	yes	
<b>ADR</b> Envir	onmentally hazardous	:	yes	
<b>RID</b> Envir	onmentally hazardous	:	yes	
<b>IMDO</b> Marin	<b>e</b> pollutant	:	yes	
	(Passenger) onmentally hazardous	:	yes	
	(Cargo) onmentally hazardous	:	yes	

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

### **SECTION 15: Regulatory information**

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

IIXture			
	tions on the manufacture, placing on use of certain dangerous substances,	:	Not applicable
preparations and	l articles (Annex XVII)		
REACH - Candio	late List of Substances of Very High	:	Not applicable
	norisation (Article 59).		
REACH - List of	substances subject to authorisation	:	Not applicable
(Annex XIV)			
Regulation (EC)	No 1005/2009 on substances that	:	Not applicable
deplete the ozon	e layer		
Regulation (EU)	2019/1021 on persistent organic	:	Not applicable
pollutants (recas	t)		
Regulation (EC)	No 649/2012 of the European	:	Not applicable
Parliament and t	he Council concerning the export and		
import of danger	ous chemicals		
Seveso III: Direc	tive 2012/18/EU of the European Parlia	ment	and of the Council on the control of
major-accident h	azards involving dangerous substances	s.	

		Quantity 1	Quantity 2
E1	ENVIRONMENTAL	100 t	200 t
	HAZARDS		



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### Other regulations:

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Use plant protection products safely. Always read the label and product information before use.

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

### **SECTION 16: Other information**

#### Full text of H-Statements

H302 :	Harmful if swallowed.
H312 :	Harmful in contact with skin.
H315 :	Causes skin irritation.
H317 :	May cause an allergic skin reaction.
H318 :	Causes serious eye damage.
H335 :	May cause respiratory irritation.
H400 :	Very toxic to aquatic life.
H410 :	Very toxic to aquatic life with long lasting effects.
H411 :	Toxic to aquatic life with long lasting effects.
H412 :	Harmful to aquatic life with long lasting effects.

#### Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT SE	:	Specific target organ toxicity - single exposure
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road: AIIC - Australian Inventory of Industrial Chemicals: ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; 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



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- Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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 Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Classification of the mixtur	e:	Classification procedure:
Aquatic Chronic 1	H410	Calculation method

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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 text.

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