

Version 5.1	n Revision Date: 30.09.2023		S Number: 24629-00011		sue: 04.04.2023 sue: 09.07.2019
Sectio	n 1: Identification				
Pı	oduct name	:	Fluazuron / Citro	nellal Formulati	on
М	anufacturer or supplier's d	letai	ils		
C	ompany	:	MSD		
Ad	ddress	:	33 Whakatiki Stro Upper Hutt - New		g 908
Te	elephone	:	0800 800 543		
Er	mergency telephone number	· :	0800 764 766 (08 CHEMCALL)	800 POISON)	0800 243 622 (0800
E	mail address	:	EHSDATASTEW	/ARD@msd.cor	n
R	ecommended use of the ch	nem	ical and restriction	ons on use	
R	ecommended use	:	Veterinary produ	ct	

Recommended use	:	Veterinary produc
Restrictions on use	:	Not applicable

Section 2: Hazard identification

GHS Classification

Flammable liquids	:	Category 3
Skin corrosion/irritation	:	Category 2
Serious eye damage/eye irri- tation	:	Category 2
Skin sensitisation	:	Category 1
Reproductive toxicity	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3
Specific target organ toxicity - repeated exposure	:	Category 2
Hazardous to the aquatic environment - acute hazard	:	Category 1
Hazardous to the aquatic environment - chronic hazard	:	Category 1



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	label elements rd pictograms		
Signa	al word	: Danger	
Haza	rd statements	H315 Causes H317 May cau H319 Causes H335 May cau H360D May da H373 May cau peated exposi	use an allergic skin reaction. serious eye irritation. use respiratory irritation. amage the unborn child. use damage to organs through prolonged or re-
Preca	autionary statements	P210 Keep aw and other ignit P233 Keep co P241 Use exp ment. P242 Use non P243 Take ac P260 Do not b P264 Wash sk P271 Use only P272 Contami the workplace P273 Avoid re	lease to the environment. otective gloves/ protective clothing/ eye protec-
		ly all contamin P304 + P340 - and keep com doctor if you fe P305 + P351 - for several mir easy to do. Co P308 + P313 attention. P333 + P313 vice/ attention	 + P338 IF IN EYES: Rinse cautiously with wate nutes. Remove contact lenses, if present and ontinue rinsing. IF exposed or concerned: Get medical advice/ If skin irritation or rash occurs: Get medical ad If eye irritation persists: Get medical advice/ at-





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Storage:

P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

Vapours may form explosive mixture with air.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Soya oil	8001-22-7	>= 30 -< 50
N-Methyl-2-pyrrolidone	872-50-4	>= 30 -< 50
Propan-2-ol	67-63-0	>= 1 -< 10
Butanone	78-93-3	>= 1 -< 10
6-Octenal, 3,7-dimethyl-	106-23-0	>= 1 -< 10
Fluazuron	86811-58-7	>= 2.5 -< 10
2,6-Di-tert-butyl-p-cresol	128-37-0	>= 0.25 -< 1

Section 4: First-aid measures

General advice	:	In the case of accident or if you feel unwell, seek medical ad- vice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air. Get medical attention.
In case of skin contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	:	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.



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		ion of first-aiders o physician	:	exposure. First Aid responder and use the recorr when the potentia	
Sect	tion 5: I	Fire-fighting measure	S		
	Unsuita	e extinguishing media able extinguishing	:	Water spray Alcohol-resistant Carbon dioxide (C Dry chemical High volume wate	202)
	media Specific fighting	c hazards during fire-	:	fire. Flash back possik Vapours may forn	water stream as it may scatter and spread ble over considerable distance. In explosive mixtures with air. Dustion products may be a hazard to health.
	Hazard ucts	ous combustion prod-	:	Carbon oxides Nitrogen oxides (I Chlorine compour Fluorine compour	nds
	ods	c extinguishing meth-	:	cumstances and t Use water spray t Remove undama so. Evacuate area.	measures that are appropriate to local cir- he surrounding environment. o cool unopened containers. ged containers from fire area if it is safe to do
	for firef	l protective equipment ighters em Code	:		e, wear self-contained breathing apparatus. sective equipment.
Sect	tion 6: /	Accidental release me	eas	ures	
	tive equ	al precautions, protec- uipment and emer- procedures	:	Follow safe handl	es of ignition. ective equipment. ing advice (see section 7) and personal pro- recommendations (see section 8).
	Enviror	nmental precautions	:	Avoid release to t	he environment.

Invironmental precautions	 Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
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	hods and materials for tainment and cleaning up	:	Soak up with ine Suppress (knock spray jet. For large spills, p ment to keep ma be pumped, store Clean up remain bent. Local or national posal of this mate employed in the mine which regul Sections 13 and	ols should be used. rt absorbent material. down) gases/vapours/mists with a water provide dyking or other appropriate contain- terial from spreading. If dyked material can a recovered material in appropriate container. ing materials from spill with suitable absor- regulations may apply to releases and dis- erial, as well as those materials and items cleanup of releases. You will need to deter- ations are applicable. 15 of this SDS provide information regarding ational requirements.
Section	7: Handling and storage	•		
Tec	hnical measures	:		measures under EXPOSURE RSONAL PROTECTION section.
Loca	al/Total ventilation	:	If sufficient ventil ventilation.	ation is unavailable, use with local exhaust oof electrical, ventilating and lighting equip-
Adv	ice on safe handling	:	Do not get on ski Avoid breathing i Do not swallow. Do not get in eye Wash skin thorou Handle in accord practice, based of sessment Non-sparking too Keep container ti Already sensitise to asthma, allerg should consult th tory irritants or se Keep away from other ignition sou Take precautiona	mist or vapours. ughly after handling. ance with good industrial hygiene and safety on the results of the workplace exposure as- ols should be used. ghtly closed. ed individuals, and those susceptible ies, chronic or recurrent respiratory disease, eir physician regarding working with respira-
Hyg	iene measures	:	If exposure to ch flushing systems place. When using do n Contaminated we workplace. Wash contamina The effective ope	emical is likely during typical use, provide eye and safety showers close to the working ot eat, drink or smoke. ork clothing should not be allowed out of the ted clothing before re-use. eration of a facility should include review of rols, proper personal protective equipment,



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	tions for safe storage als to avoid	 industrial hygiene use of administra Keep in properly Store locked up. Keep tightly close Keep in a cool, w Store in accordan Keep away from Do not store with Self-reactive sub Organic peroxide Oxidizing agents Flammable gase Pyrophoric liquid Pyrophoric solids 	labelled containers. ed. rell-ventilated place. nce with the particular national regulations. heat and sources of ignition. the following product types: stances and mixtures s s s s s s s s s s s s s s s s s s

Section 8: Exposure controls/personal protection

Components	CAS-No.	Value type (Form of	Control parame- ters / Permissible	Basis		
		exposure)	concentration			
N-Methyl-2-pyrrolidone	872-50-4	WES-TWA	25 ppm 103 mg/m3	NZ OEL		
	Further inform	nation: Skin absc	orption			
		WES-STEL	75 ppm 309 mg/m3	NZ OEL		
	Further inform	nation: Skin abso	orption			
Propan-2-ol	67-63-0	WES-TWA	400 ppm 983 mg/m3	NZ OEL		
		WES-STEL	500 ppm 1,230 mg/m3	NZ OEL		
		TWA	200 ppm	ACGIH		
		STEL	400 ppm	ACGIH		
Butanone	78-93-3	WES-STEL	300 ppm 890 mg/m3	NZ OEL		
	Further inform monitoring	nation: Exposure	can also be estimate	d by biological		
		WES-TWA	150 ppm 445 mg/m3	NZ OEL		
	Further inform monitoring	Further information: Exposure can also be estimated by biologica				
		TWA	200 ppm	ACGIH		
		STEL	300 ppm	ACGIH		
Fluazuron	86811-58-7	TWA	60 µg/m3 (OEB 3)	Internal		
		Wipe limit	600 µg/ 100cm2	Internal		

Components with workplace control parameters



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2,6-Di-tert-butyl-p-cresol	128-37-0	WES-TWA	10 mg/m3	NZ OEL
	Further informa	ation: Skin sensi	tiser	
		TWA (Inhal-	2 mg/m3	ACGIH
		able fraction	-	
		and vapor)		

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentra- tion	Basis
N-Methyl-2-pyrrolidone	872-50-4	5-Hydroxy- N-methyl-2- pyrrolidone	Urine	End of shift (As soon as possible after exposure ceases)	100 mg/l	ACGIH BEI
Propan-2-ol	67-63-0	Acetone	Urine	End of shift at end of work- week	40 mg/l	ACGIH BEI
Butanone	78-93-3	MEK	Urine	End of shift	2 mg/l	NZ BEI
		methyl ethyl ketone	Urine	End of shift (As soon as possible after exposure ceases)	2 mg/l	ACGIH BEI

 Engineering measures
 : Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., dripless quick connections).

 All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.

 Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices).

 Minimize open handling.

 Use explosion-proof electrical, ventilating and lighting equipment.

Personal protective equipment

Respiratory protection	:	If adequate local exhaust ventilation is not available or expo-
		sure assessment demonstrates exposures outside the rec-
		ommended guidelines, use respiratory protection.
Filter type	:	Organic vapour type



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Hand	protection							
M	aterial	: Chemical-r	esistant gloves					
Remarks			Consider double gloving. Take note that the product is flam- mable, which may impact the selection of hand protection.					
Eye p	protection	: Wear safet If the work mists or ae Wear a fac	y glasses with side shields or goggles. environment or activity involves dusty conditions, rosols, wear the appropriate goggles. eshield or other full face protection if there is a r direct contact to the face with dusts, mists, or					
Skin :	and body protection	: Work unifo Additional I task being posable su Use approp	rm or laboratory coat. body garments should be used based upon the performed (e.g., sleevelets, apron, gauntlets, dis- its) to avoid exposed skin surfaces. briate degowning techniques to remove potentially ed clothing.					

Section 9: Physical and chemical properties

Appearance	:	Aqueous solution
Colour	:	yellow
Odour	:	No data available
Odour Threshold	:	No data available
рН	:	No data available
Melting point/freezing point	:	-4 °C
Initial boiling point and boiling range	:	78 °C
Flash point	:	52 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available





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	Relative	e vapour density	:	No data available	9
	Relative	e density	:	0.94 - 0.96	
	Density	,	:	No data available)
	Solubili Wat	ty(ies) er solubility	:	practically insolul	ble
	Solu	bility in other solvents	:	soluble Solvent: Ethanol	
	Partition octanol	n coefficient: n-	:	log Pow: -0.54	
		nition temperature	:	No data available)
	Decom	position temperature	:	No data available)
	Viscosi Visc	ty osity, kinematic	:	5.3 - 5.7 mm2/s (25 °C)
	Explosi	ve properties	:	Not explosive	
		ng properties	:		r mixture is not classified as oxidizing.
	Molecu	lar weight	:	No data available)
	Particle	size	:	Not applicable	

Section 10: Stability and reactivity

Reactivity Chemical stability Possibility of hazardous reac- tions	:	Not classified as a reactivity hazard. Stable under normal conditions. Flammable liquid and vapour. Vapours may form explosive mixture with air. Can react with strong oxidizing agents.
Conditions to avoid Incompatible materials Hazardous decomposition products	:	Heat, flames and sparks. Oxidizing agents No hazardous decomposition products are known.

Section 11: Toxicological information

Exposure routes	: Inhalation Skin contact
	Ingestion Eye contact



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	e toxicity lassified based on ava	ilable	information.	
Comp	oonents:			
N-Me	thyl-2-pyrrolidone:			
Acute	e oral toxicity	:	LD50 (Rat): 4,1	50 mg/kg
Acute	inhalation toxicity	:	LC50 (Rat): > 5 Exposure time: Test atmospher Method: OECD	4 h
Acute	e dermal toxicity	:	LD50 (Rat): > 5	5,000 mg/kg
Propa	an-2-ol:			
Acute	oral toxicity	:	LD50 (Rat): > 5	5,000 mg/kg
Acute	inhalation toxicity	:	LC50 (Rat): > 2 Exposure time: Test atmosphere	6 h
Acute	e dermal toxicity	:	LD50 (Rabbit):	> 5,000 mg/kg
Butar	none:			
Acute	oral toxicity	:		2,000 - 5,000 mg/kg ed on data from similar materials
Acute	inhalation toxicity	:		4 h
Acute	e dermal toxicity	:	LD50 (Rabbit):	> 5,000 mg/kg
6-Oct	enal, 3,7-dimethyl-:			
	oral toxicity	:	LD50 (Rat): 2,4	23 mg/kg
Acute	e dermal toxicity	:	LD50 (Rabbit):	> 2,500 - < 5,000 mg/kg
Fluaz	uron:			
	e oral toxicity	:	LD50 (Rat): > 5 Method: OECD	5,000 mg/kg Test Guideline 401
Acute	inhalation toxicity	:	LC50 (Rat): > 6 Exposure time: Test atmospher Method: OECD	4 h



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Acute	e dermal toxicity	: LD Me	50 (Rat): > 2,0 hthod: OECD 1	000 mg/kg Fest Guideline 402	
2.6-D	i-tert-butyl-p-cresol:				
	e oral toxicity		50 (Rat): > 6,0 thod: OECD 1	000 mg/kg Fest Guideline 401	
Acute	Acute dermal toxicity			000 mg/kg Fest Guideline 402 e substance or mixture has no acute dermal	
-	corrosion/irritation es skin irritation.				
Com	ponents:				
N-Me	thyl-2-pyrrolidone:				
Resu	lt	: Sk	in irritation		
Prop	an-2-ol:				
Spec Resu	ies		bbit skin irritation		
Buta	none:				
Asse	ssment	: Re	peated expos	ure may cause skin dryness or cracking.	
Spec			bbit		
Meth Resu		-	CD Test Guic skin irritation	leline 404	
Rema				om similar materials	
6-Oc	tenal, 3,7-dimethyl-:				
Spec	•	: Ra	bbit		
Resu	lt	: Sk	in irritation		
Fluaz	zuron:				
Spec			bbit		
Meth Resu			CD Test Guic skin irritation	leline 404	
2 6-0	vi-tert-butyl-p-cresol:				
Spec		: Ra	bbit		
Meth	od	: OE	CD Test Guid	leline 404	
Resu			skin irritation		
Rema	aiks	: Based on data from similar materials			

Result



Fluazuron / Citronellal Formulation

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Soria	ous eye damage/eye	irritation	
	es serious eye irritation		
	ponents:		
	thyl-2-pyrrolidone:	Data	
Spec Resu		: Rabbit : Irritation to ey	ves, reversing within 21 days
Prop	an-2-ol:		
Spec Resu		: Rabbit : Irritation to ey	ves, reversing within 21 days
Buta	none:		
Spec		: Rabbit	
Resu Meth		: Irritation to ey : OECD Test C	/es, reversing within 21 days Suideline 405
mour		. 0200 10010	
	tenal, 3,7-dimethyl-:		
Spec		: Rabbit	veg reversing within 21 days
Resu	It	: Irritation to ey	es, reversing within 21 days
Fluaz	zuron:		
Spec		: Rabbit	
Resu Meth		: Mild eye irrita : OECD Test G	
Meur	ou -	. OLOD Test C	
2,6-D)i-tert-butyl-p-cresol	:	
Spec		: Rabbit	
Resu Meth		: No eye irritati : OECD Test C	
Rema			a from similar materials
-	piratory or skin sens	itisation	
-	sensitisation		
	cause an allergic skin		
•	piratory sensitisation		
Not c	lassified based on av	ailable information.	
Com	ponents:		
N-Me	thyl-2-pyrrolidone:		
Test			node assay (LLNA)
Expo Spec	sure routes	: Skin contact : Mouse	
Meth		: OECD Test G	Guideline 429
Posu		: pogativo	

: negative



rsion	Revision Date: 30.09.2023	SDS Number:Date of last issue: 04.04.20234624629-00011Date of first issue: 09.07.2019	
Rema	rks	: Based on data from similar materials	
Durana			
-	in-2-ol:		
Test T		: Buehler Test	
	ure routes	: Skin contact	
Specie		: Guinea pig : OECD Test Guideline 406	
Metho	-		
Result	L	: negative	
Butan	one:		
Test T	уре	: Buehler Test	
	ure routes	: Skin contact	
Specie		: Guinea pig	
Metho		: OECD Test Guideline 406	
Result	t i	: negative	
6-Octe	enal, 3,7-dimethyl-:		
Test T	vpe	: Maximisation Test	
	ure routes	: Skin contact	
Specie		: Guinea pig	
Result		: positive	
Asses	sment	: Probability or evidence of skin sensitisation in huma	ans
Fluazu	uron:		
Expos	ure routes	: Skin contact	
Specie		: Guinea pig	
Result		: negative	
2.6-Di	-tert-butyl-p-cresol:		
Test T		: Human repeat insult patch test (HRIPT)	
	ure routes	: Skin contact	
Specie		: Humans	
Result		: negative	
Chron	nic toxicity		
Germ	cell mutagenicity		
	assified based on ava	ailable information.	
<u>Comp</u>	onents:		
	hyl-2-pyrrolidone:		
Genot	oxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES Method: OECD Test Guideline 471 Result: negative	5)
		Test Type: In vitro mammalian cell gene mutation te	əst



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		Method: OECD Test Guideline 476 Result: negative Test Type: DNA damage and repair, unscheduled DNA syn- thesis in mammalian cells (in vitro) Result: negative
Geno	toxicity in vivo	: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 474 Result: negative
		Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis) Species: Hamster Application Route: Ingestion Method: OECD Test Guideline 475 Result: negative
Prop	an-2-ol:	
Geno	toxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
		Test Type: In vitro mammalian cell gene mutation test Result: negative
Geno	toxicity in vivo	 Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Result: negative
Buta	none:	
	toxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
		Test Type: In vitro mammalian cell gene mutation test Result: negative
		Test Type: Chromosome aberration test in vitro Result: negative
		Test Type: DNA damage and repair, unscheduled DNA syn- thesis in mammalian cells (in vitro) Result: negative
		Test Type: Saccharomyces cerevisiae, gene mutation assay (in vitro) Result: negative



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Genotoxicity in vivo		c S A	Test Type: Mammalian erythrocyte micronucleus test (in v cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Result: negative		
6-Oct	enal, 3,7-dimethyl-:				
Geno	Genotoxicity in vitro		Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative		
Fluaz	uron:				
Geno	toxicity in vitro		est Type: Bac esult: negative	terial reverse mutation assay (AMES) e	
			est Type: DN/ esult: negative		
			est Type: In vi esult: negative	itro mammalian cell gene mutation test e	
Geno	Genotoxicity in vivo		Test Type: Cytogenetic assay Species: Hamster Result: equivocal		
2,6-D	i-tert-butyl-p-cresol	:			
	toxicity in vitro	: Т	est Type: Bac esult: negative	terial reverse mutation assay (AMES) e	
			est Type: In vi esult: negative	itro mammalian cell gene mutation test e	
			est Type: Chro esult: negative	omosome aberration test in vitro e	
Geno	toxicity in vivo	c: S A			
	nogenicity assified based on av	ailable inf	ormation.		
Com	oonents:				
N-Me	thyl-2-pyrrolidone:				
Speci	es cation Route		at		



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	Exposu Result	ire time	:	2 Years negative			
	Species Application Route Exposure time Result		:	Rat inhalation (vapour) 2 Years negative			
	Propan-2-ol: Species Application Route Exposure time Method Result		- - - - -	 Rat inhalation (vapour) 104 weeks OECD Test Guideline 451 negative 			
	Specie: Applica	ition Route ire time	:	Rat Ingestion 104 - 105 weeks negative Based on data fro	om similar materials		
		s ition Route ire time	:	Rat Ingestion 2 Years OECD Test Guide negative	eline 453		
		s ition Route ire time	:	Mouse Ingestion 2 Years negative			
	Specie: Applica	tert-butyl-p-cresol: s tion Route ire time	: : :	Rat Ingestion 22 Months negative			
	-	ductive toxicity mage the unborn child					
	Compo	onents:					
		nyl-2-pyrrolidone: on fertility	:	Test Type: Two-g Species: Rat Application Route	eneration reproduction toxicity study : Ingestion		



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		Method: OE0 Result: nega	CD Test Guideline 416		
Effects on foetal develop- ment		: Test Type: E Species: Rat Application F	mbryo-foetal development Route: Ingestion CD Test Guideline 414		
		Species: Rat	Route: inhalation (vapour)		
		Species: Rat	coute: Ingestion		
Repro sessn	oductive toxicity - As- nent	: Clear eviden animal exper	ce of adverse effects on development, based or iments.		
Propa	an-2-ol:				
Effect	s on fertility	Species: Rat Application R	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Result: negative		
Effect ment	s on foetal develop-	Species: Rat	Route: Ingestion		
Butar	ione:				
Effect	s on fertility	Species: Rat Application F Result: nega	Route: Ingestion		
Effects on foetal develop- ment		Species: Rat Application R	Route: Inhalation CD Test Guideline 414		
6-Oct	enal, 3,7-dimethyl-:				
Effects on fertility		: Test Type: R test Species: Rat	eproduction/Developmental toxicity screening		



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Effect	ts on foetal develop-	Method: Ol Result: neg Remarks: E : Test Type: Species: R Application Result: neg	Based on data from similar materials Embryo-foetal development at Route: Inhalation
	Fluazuron: Effects on fertility		Two-generation reproduction toxicity study at Route: Ingestion gative
Effec ment	ts on foetal develop-	Species: R Application Result: neg Test Type: Species: R Application	Route: Ingestion gative Embryo-foetal development abbit Route: Ingestion ECD Test Guideline 414
	i-tert-butyl-p-cresol: ts on fertility	Species: R	Route: Ingestion
Effect ment	ts on foetal develop-	Species: R	Route: Ingestion
May o <u>Com</u>	Γ - single exposure cause respiratory irritati ponents:	on.	
	t hyl-2-pyrrolidone: ssment	: May cause	respiratory irritation.
-	an-2-ol: ssment	: May cause	drowsiness or dizziness.



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Butan	ione:		
Asses	sment	: May cause	drowsiness or dizziness.
	- repeated exposur		
May c	ause damage to orga	ans through prolone	ged or repeated exposure.
<u>Comp</u>	onents:		
Butan	ione:		
Asses	sment		damage to organs through prolonged or repeate
Rema	rke	exposure.	ational or regional regulation.
Rema		. Dased off	
2,6-Di	-tert-butyl-p-cresol:		
Asses	sment		ant health effects observed in animals at concent) mg/kg bw or less.
Repea	ated dose toxicity		
Comp	onents:		
Soya	oil:		
Specie		: Rat	
NOAE		: 4,000 mg/k	g
	ation Route sure time	: Ingestion : 90 h	
	hyl-2-pyrrolidone:		
Specie		: Rat, male	
NOAE LOAE		: 169 mg/kg	
	L ation Route	: 433 mg/kg : Ingestion	
	sure time	: 90 Days	
Metho			t Guideline 408
Specie	es	: Rat	
NOAE		: 0.5 mg/l	
LOAE		: 1 mg/l	· · · · · · · · · · · · · · · · · · ·
	ation Route		dust/mist/fume)
Metho	sure time d	: 96 Days : OECD Tes	t Guideline 413
Specie	95	: Rabbit	
NOAE		: 826 mg/kg	
LOAE		: 1,653 mg/k	g
	ation Route	: Skin contac	
Expos	sure time	: 20 Days	
	ın-2-ol:		



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		: Rat : 12.5 mg/l : inhalation (vapour) : 104 Weeks
Buta	none:	
	EL ication Route osure time	 Rat 14.84 mg/l inhalation (vapour) 90 Days OECD Test Guideline 413
6-00	tenal, 3,7-dimethyl-:	
Spec NOA LOA Appl	cies EL EL ication Route osure time	 Rat 100 mg/kg 210 mg/kg Ingestion 104 - 105 Weeks Based on data from similar materials
	EL EL ication Route osure time	 Rat 215 mg/m3 430 mg/m3 Inhalation 13 Weeks Based on data from similar materials
Spec LOA Appl Expo		 Rat 240 mg/kg Ingestion 13 Weeks Liver, Thyroid, Pituitary gland
Spec NOA LOA Appl	cies EL	 Rat 10 mg/kg 100 mg/kg Skin contact 3 Weeks
Expo	EL	 Dog 7.5 mg/kg 110 mg/kg Ingestion 52 Weeks Liver
2,6-I Spec	Di-tert-butyl-p-cresol: cies	: Rat





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NOAEL	:	25 mg/kg
Application Route	:	Ingestion
Exposure time	:	22 Months

Aspiration toxicity

Not classified based on available information.

Components:

Propan-2-ol:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Butanone:

The substance or mixture causes concern owing to the assumption that it causes a human aspiration toxicity hazard.

Experience with human exposure

Components:

N-Methyl-2-pyrrolidone:

Skin contact : Symptoms: Skin irritation

Section 12: Ecological information

Ecotoxicity

Components:

N-Methyl-2-pyrrolidone:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 500 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 24 h Method: DIN 38412
Toxicity to algae/aquatic plants	:	ErC50 (Desmodesmus subspicatus (green algae)): 600.5 mg/l Exposure time: 72 h
		EC10 (Desmodesmus subspicatus (green algae)): 92.6 mg/l Exposure time: 72 h
Toxicity to daphnia and other aquatic invertebrates (Chron- ic toxicity)	:	NOEC (Daphnia magna (Water flea)): 12.5 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to microorganisms	:	EC50: > 600 mg/l Exposure time: 30 min Method: ISO 8192



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	opan-2-ol: xicity to fish	:		s promelas (fathead minnow)): 9,640 mg/l	
	Toxicity to daphnia and other aquatic invertebrates		Exposure time: 96 h EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 24 h		
To	Toxicity to microorganisms		EC50 (Pseudomo Exposure time: 16	nas putida): > 1,050 mg/l s h	
	tanone: xicity to fish	:	LC50 (Pimephales Exposure time: 96 Method: OECD Te		
	Toxicity to daphnia and other aquatic invertebrates		EC50 (Daphnia m Exposure time: 48 Method: OECD Te	3 h	
	xicity to algae/aquatic nts	:	ErC50 (Pseudokir mg/l Exposure time: 96 Method: OECD Te		
			NOEC (Pseudokir mg/l Exposure time: 96 Method: OECD Te		
	Octenal, 3,7-dimethyl-: xicity to fish	:	LC50 (Leuciscus i Exposure time: 96 Method: DIN 3841		
	xicity to daphnia and other uatic invertebrates	:	EC50 (Daphnia m Exposure time: 48	agna (Water flea)): 8.7 mg/l 3 h	
	Toxicity to algae/aquatic plants		EC50 (Desmodesmus subspicatus (green algae)): 6.74 m Exposure time: 72 h		
	Fluazuron: Toxicity to fish		LC50 (Cyprinus ca Exposure time: 96	arpio (Carp)): > 9.1 mg/l S h	
	xicity to daphnia and other uatic invertebrates	:	EC50 (Daphnia sp. (water flea)): 0.0006 mg/l Exposure time: 48 h		
To	Toxicity to algae/aquatic		NOEC (Raphidoce	elis subcapitata (freshwater green alga)):	



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plants			27.9 mg/l Exposure time: 72	2 h
M-Fac icity)	ctor (Acute aquatic tox-	:	1,000	
	ctor (Chronic aquatic y)	:	1,000	
2.6-Di	-tert-butyl-p-cresol:			
	ty to fish	:	Exposure time: 96) (zebra fish)): > 0.57 mg/l S h 67/548/EEC, Annex V, C.1.
	ty to daphnia and other ic invertebrates	:	EC50 (Daphnia m Exposure time: 48 Method: OECD T	
Toxici plants	ty to algae/aquatic	:	ErC50 (Pseudokin mg/l Exposure time: 72 Method: OECD T	
			NOEC (Pseudoki mg/l Exposure time: 72 Method: OECD T	
M-Fac icity)	ctor (Acute aquatic tox-	:	1	
	ty to fish (Chronic tox-	:	NOEC (Oryzias la Exposure time: 30 Method: OECD T	
	ty to daphnia and other ic invertebrates (Chron- city)	:	NOEC (Daphnia r Exposure time: 27	nagna (Water flea)): 0.316 mg/l I d
M-Fac	ctor (Chronic aquatic	:	1	
toxicit Toxici	y) ty to microorganisms	:	EC50: > 10,000 n Exposure time: 3 Method: OECD T	h
Persis	stence and degradabili	ty		
Comp	oonents:			
N-Met	thyl-2-pyrrolidone:			
	gradability	:	Result: Readily bi Biodegradation: Exposure time: 28 Method: OECD T	73 %



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Prop	an-2-ol:					
Biode	Biodegradability		Result: rapidly de	gradable		
BOD/	BOD/COD		BOD: 1.19 (BOD5)COD: 2.23BOD/COD: 53 %			
	none:					
Biode	Biodegradability		Result: Readily bi Biodegradation: Exposure time: 28 Method: OECD T	98 %		
6-Oct	tenal, 3,7-dimethyl-:					
Biode	egradability	:	Result: Readily bi Biodegradation:			
			Exposure time: 28			
2,6-D	i-tert-butyl-p-cresol:					
Biode	egradability	:	Biodegradation: Exposure time: 28	4.5 %		
Bioa	ccumulative potential					
	ponents:					
Soya	oil:					
	ion coefficient: n- ol/water	:	log Pow: > 4 Remarks: Calcula	ation		
N-Me	thyl-2-pyrrolidone:					
	ion coefficient: n- ol/water	:	log Pow: -0.46 Method: OECD T	est Guideline 107		
-	an-2-ol:					
	ion coefficient: n- ol/water	:	log Pow: 0.05			
	none:					
	ion coefficient: n- ol/water	:	log Pow: 0.3			
	tenal, 3,7-dimethyl-:					
	Partition coefficient: n- octanol/water		log Pow: 3.62			
	uron:					
Partit	ion coefficient: n-	:	log Pow: 5.1			



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octar	nol/water		
2,6-D)i-tert-butyl-p-cresol:		
Bioad	ccumulation		prinus carpio (Carp) ation factor (BCF): 330 - 1,800
	tion coefficient: n- nol/water	: log Pow: 5.1	
Mobi	ility in soil		
No da	ata available		
Othe	r adverse effects		
No da	ata available		

Disposal methods	
Waste from residues	: Do not dispose of waste into sewer. Dispose of in accordance with local regulations.
Contaminated packaging	 Empty containers should be taken to an approved waste han- dling site for recycling or disposal. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product.

Section 14: Transport information

International Regulations

UNRTDG		
UN number	:	UN 1993
Proper shipping name	:	FLAMMABLE LIQUID, N.O.S. (Propan-2-ol, Butanone)
Class	:	3
Packing group	:	III
Labels	:	3
Environmentally hazardous	:	no
IATA-DGR		
UN/ID No.	:	UN 1993
Proper shipping name	:	Flammable liquid, n.o.s. (Propan-2-ol, Butanone)
Class	:	3
Packing group	:	111
Labels	:	Flammable Liquids
Packing instruction (cargo aircraft)	:	366
Packing instruction (passen- ger aircraft)	:	355



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Class Packin Labels EmS C Marine	mber shipping name g group Code pollutant		3 III 3 F-E, <u>S-E</u> yes	anone, Fluazuron, 2,6-Di-tert-butyl-p-cresol)
	port in bulk accordin plicable for product as	-		OL 73/78 and the IBC Code
Nation	al Regulations			

NZS 5433

UN number		UN 1993
	•	
Proper shipping name	:	FLAMMABLE LIQUID, N.O.S. (Propan-2-ol, Butanone)
Class	:	3
Packing group	:	III
Labels	:	3
Hazchem Code	:	3Y
Marine pollutant	:	no

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.

Section 15: Regulatory information

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

HSNO Approval Number

HSR100759 Veterinary Medicines Non dispersive Open System Application Group Standard

HSW Controls

Certified handler certificate not required. Tracking hazardous substance not required. Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further information.

AICS	:	not determined
DSL	:	not determined
IECSC	:	not determined



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Section 16: Other information		
Revision Date	:	30.09.2023
Further information		
Sources of key data used to compile the Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/
Date format	:	dd.mm.yyyy
Full text of other abbreviatio	ns	
ACGIH ACGIH BEI NZ BEI NZ OEL	:	USA. ACGIH Threshold Limit Values (TLV) ACGIH - Biological Exposure Indices (BEI) New Zealand. Biological Exposure Indices New Zealand. Workplace Exposure Standards for Atmospher- ic Contaminants
ACGIH / TWA ACGIH / STEL NZ OEL / WES-TWA NZ OEL / WES-STEL	:	8-hour, time-weighted average Short-term exposure limit Workplace Exposure Standard - Time Weighted average Workplace Exposure Standard - Short-Term Exposure Limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation: DSL - Domestic Substances List (Canada): ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure 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: SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System



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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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

NZ / EN