



## **Fipronil Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 06/14/2024
3.0	07/06/2024	4789402-00012	Date of first issue: 08/27/2019

### **SECTION 1. IDENTIFICATION**

Product name	:	Fipronil Formulation
Other means of identification	:	No data available

#### Manufacturer or supplier's details

Company name of supplier	:	Merck & Co., Inc
Address	:	126 E. Lincoln Avenue
		Rahway, New Jersey U.S.A. 07065
Telephone	:	908-740-4000
Emergency telephone	:	1-908-423-6000
E-mail address	:	EHSDATASTEWARD@merck.com

### Recommended use of the chemical and restrictions on use

Recommended use	:	Veterinary product
Restrictions on use	:	Not applicable

#### **SECTION 2. HAZARDS IDENTIFICATION**

GHS classification in accordance with the Hazardous Products Regulations Flammable liquids : Category 3						
Acute toxicity (Oral)	:	Category 4				
Acute toxicity (Inhalation)	:	Category 3				
Skin irritation	:	Category 2				
Eye irritation	:	Category 2A				
Specific target organ toxicity - repeated exposure	:	Category 1 (Central nervous system, Kidney)				
GHS label elements Hazard pictograms	:					
Signal Word	:	Danger				
Hazard Statements	:	<ul> <li>H226 Flammable liquid and vapor.</li> <li>H302 Harmful if swallowed.</li> <li>H315 Causes skin irritation.</li> <li>H319 Causes serious eye irritation.</li> <li>H331 Toxic if inhaled.</li> <li>H372 Causes damage to organs (Central nervous system, Kidney) through prolonged or repeated exposure.</li> </ul>				

according to the Hazardous Products Regulations



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Precautionary Statements		<ul> <li>Prevention:</li> <li>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</li> <li>P260 Do not breathe mist or vapors.</li> <li>P264 Wash skin thoroughly after handling.</li> <li>P270 Do not eat, drink or smoke when using this product.</li> <li>P271 Use only outdoors or in a well-ventilated area.</li> <li>P280 Wear protective gloves, protective clothing, eye protection and face protection.</li> </ul>				
		<ul> <li>Response:</li> <li>P301 + P312 + P330 IF SWALLOWED: Call a doctor if you unwell. Rinse mouth.</li> <li>P303 + P361 + P353 IF ON SKIN (or hair): Take off immed all contaminated clothing. Rinse skin with water.</li> <li>P304 + P340 + P311 IF INHALED: Remove person to fresh and keep comfortable for breathing. Call a doctor.</li> <li>P305 + P351 + P338 IF IN EYES: Rinse cautiously with wa for several minutes. Remove contact lenses, if present and to do. Continue rinsing.</li> <li>P314 Get medical attention if you feel unwell.</li> <li>P332 + P313 If skin irritation occurs: Get medical attention.</li> <li>P337 + P313 If eye irritation persists: Get medical attention P362 + P364 Take off contaminated clothing and wash it be reuse.</li> </ul>				
		Storage: P405 Store locke	d up.			
		<b>Disposal:</b> P501 Dispose of disposal plant.	contents and container to an approved waste			
Other	hazards					

Vapors may form explosive mixture with air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Mixture
---------------------	---	---------

### Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
2-Butoxyethanol	1-Butoxy-2- hydroxyethan	111-76-2	>= 80 - <= 100 *
Ethanol#	Ethyl alcohol	64-17-5	>= 10 - < 30
Fipronil	5-Amino-1-[2,6- dichloro-4- (trifluorome- thyl)phenyl]-4- [(trifluorome- thyl)sulfinyl]-1H- pyrazole-3-	120068-37-3	>= 1 - < 5 *

according to the Hazardous Products Regulations

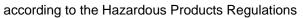


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-						
#\/al		onitrile				
	untarily-disclosed subst					
Actu	a concentration of con	centration range is withheld as a trade secret				
ECTION	4. FIRST AID MEASU	RES				
Gene	ral advice	: In the case of accident or if you feel unwell, seek medical advice immediately.				
		When symptoms persist or in all cases of doubt seek medical advice.				
lf inha	aled	: If inhaled, remove to fresh air.				
		If not breathing, give artificial respiration.				
		If breathing is difficult, give oxygen. Get medical attention.				
In cas	e 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 cas	se of eye contact	: In case of contact, immediately flush eyes with plenty of wate				
	·	for at least 15 minutes.				
		If easy to do, remove contact lens, if worn.				
If ewo	llowed	Get medical attention. If swallowed, DO NOT induce vomiting unless directed to do				
11 5 Wa	moweu	so by medical personnel.				
		Get medical attention.				
		Rinse mouth thoroughly with water.				
Maat		Never give anything by mouth to an unconscious person.				
	important symptoms ffects, both acute and	: Harmful if swallowed. Causes skin irritation.				
delay		Causes skill inflation.				
,		Toxic if inhaled.				
		Causes damage to organs through prolonged or repeated				
		exposure.				
		There may be delayed neurological effects, including brain oedema.				
		Must not be confused with organophosphorous compounds!				
Prote	ction of first-aiders	: First Aid responders should pay attention to self-protection,				
		and use the recommended personal protective equipment				
Notes	to physician	when the potential for exposure exists (see section 8).				
notes	to physician	: Treat symptomatically and supportively.				

### SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Do not use a solid water stream as it may scatter and spread fire.





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				Vapors may form	le over considerable distance. explosive mixtures with air. pustion products may be a hazard to health.
	Hazardous combustion prod- ucts		:	Nitrogen oxides (NOx) Sulfur oxides Carbon oxides Chlorine compounds Fluorine compounds	
	Specific extinguishing meth- ods		:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so.	
	Special for fire-f	protective equipment fighters	:	Evacuate area. In the event of fire Use personal prot	e, wear self-contained breathing apparatus. ective equipment.
SEC	TION 6.	ACCIDENTAL RELE	ASE	E MEASURES	
t	tive equ	al precautions, protec- upment and emer- procedures	:		
I	Environmental precautions		:	Prevent spreading oil barriers). Retain and dispos	akage or spillage if safe to do so. g over a wide area (e.g., by containment or se of contaminated wash water. should be advised if significant spillages
		ls and materials for ment and cleaning up	:	Suppress (knock of jet. For large spills, pr containment to ke can be pumped, s container. Clean up remainin absorbent. Local or national r disposal of this ma employed in the c determine which r Sections 13 and 1	s should be used. absorbent material. down) gases/vapors/mists with a water spray ovide diking or other appropriate ep material from spreading. If diked material tore recovered material in appropriate ang materials from spill with suitable egulations may apply to releases and aterial, as well as those materials and items leanup of releases. You will need to egulations are applicable. 5 of this SDS provide information regarding tional requirements.

### SECTION 7. HANDLING AND STORAGE

according to the Hazardous Products Regulations



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	nnical measures al/Total ventilation	<ul> <li>See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.</li> <li>If sufficient ventilation is unavailable, use with local exhaust ventilation.</li> <li>Use explosion-proof electrical, ventilating and lighting equip-</li> </ul>				
Advi	ce on safe handling	Do not breath Do not swallo Do not get in o Wash skin tho Handle in acc practice, base assessment Non-sparking Keep containe Keep away fro other ignition Take precauti Do not eat, dr	<ul> <li>Do not get on skin or clothing. Do not breathe mist or vapors. Do not swallow.</li> <li>Do not get in eyes.</li> <li>Wash skin thoroughly after handling.</li> <li>Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment</li> <li>Non-sparking tools should be used.</li> <li>Keep container tightly closed.</li> <li>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</li> <li>Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product.</li> <li>Take care to prevent spills, waste and minimize release to the</li> </ul>			
Con	ditions for safe storage	: Keep in prope Store locked u Keep tightly c Keep in a coo Store in accor				
Mate	erials to avoid	: Do not store w Strong oxidizi Self-reactive s Organic perox Flammable sc Pyrophoric liq Pyrophoric so Self-heating s Substances a flammable ga Explosives Gases	•			

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
2-Butoxyethanol	111-76-2	TWA	20 ppm 97 mg/m <sup>3</sup>	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	20 ppm	CA QC OEL



according to the Hazardous Products Regulations

sion	Revision Date: 07/06/2024			umber: )2-00012		Date of las Date of firs				
			1		T\	NA	20 ppm			GIH
Ethan	ol		64-1	7-5		NA	1,000 ppr	n		
			••••					1,880 mg/m <sup>3</sup>		
						ΓEL	1,000 ppr			A BC OEI
					_	TEV	1,000 ppr			
Fipror	ail		120	068-37-3	_	ΓEL VA	1,000 ppr 2 µg/m3 (		_	CGIH ernal
				her information			_ z μg/m3 (		111	emai
					W	ipe limit	20 µg/100	) cm2	Int	ernal
	gical occupational							1		
Comp	oonents	CAS-	No.	Control paramete	ers	Biological specimen	Sam- pling time	Permissi concentr		Basis
2-But	oxyethanol	111-7	6-2	Butoxyac c acid (BAA)	eti	Urine	End of shift (As soon as possible after exposure ceases)	tion 200 mg/g creatinin		ACGIH BEI
			cab pot exis Use	binet, fume ential exist st, handle o e explosior	hoo s fo ove	poratory, use od, or other o r aerosolizat r lined trays oof electrical	containmen tion. If this p or benchtop	t device if potential d ps.	the loes	-
Daras	nal protoctivo ogu	inmon		ipment.						
Respi Fil	iratory protective equitive ter type	: : : : : :	lf a exp rec	osure asso ommended	essi d gu	exhaust ven ment demon idelines, use ilates and or	strates exp e respirator	osures ou y protectic	tside	e the
Hand	protection									
Ma	aterial	:	Ch	emical-resi	star	nt gloves				
Re	emarks	:	flar			gloving. Tak				
Eye p	protection	:	We If th mis We pot	ar safety g ne work en its or aeros ar a facesl ential for d	viro sols hielo	ses with side nment or act , wear the ap d or other ful t contact to t	tivity involve opropriate g l face prote	es dusty co joggles. ction if the	ere is	sa
Skin a	and body protection			osols. rk uniform	orl	aboratorv co	at			

according to the Hazardous Products Regulations

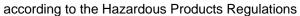


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Hygie	ne measures	task being perfo disposable suits Use appropriate contaminated cl : If exposure to cl eye flushing sys working place. When using do Wash contamin The effective op engineering con appropriate deg	hemical is likely during typical use, provide stems and safety showers close to the not eat, drink or smoke. ated clothing before re-use. beration of a facility should include review of trols, proper personal protective equipment, owning and decontamination procedures, he monitoring, medical surveillance and the

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid	
Color	: yellow	
Odor	: characterist	tic
Odor Threshold	: No data ava	ailable
рН	: No data ava	ailable
Melting point/freezing point	: No data ava	ailable
Initial boiling point and boilir range	g : 78.5 °C	
Flash point	: 29 °C	
Evaporation rate	: No data ava	ailable
Evaporation rate Flammability (solid, gas)	: No data ava : Not applica	
		ble
Flammability (solid, gas)	: Not applica : Not applica	ble ble
Flammability (solid, gas) Flammability (liquids) Upper explosion limit / Uppe	: Not applica : Not applica : No data ava	ble ble ailable
Flammability (solid, gas) Flammability (liquids) Upper explosion limit / Upper flammability limit Lower explosion limit / Lower	: Not applica : Not applica : No data ava	ble ble ailable ailable
Flammability (solid, gas) Flammability (liquids) Upper explosion limit / Upper flammability limit Lower explosion limit / Lower flammability limit	: Not applica : Not applica : No data ava : No data ava	ble ble ailable ailable
Flammability (solid, gas) Flammability (liquids) Upper explosion limit / Upper flammability limit Lower explosion limit / Lower flammability limit Vapor pressure	: Not applical : Not applical : No data ava : No data ava : No data ava	ble ble ailable ailable





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Densi	ty	: No data a	vailable
	ility(ies) ater solubility	: slightly so	luble
	on coefficient: n- ol/water	: Not applic	cable
	gnition temperature	: No data a	vailable
Decor	mposition temperature	: No data a	vailable
Visco Vis	sity scosity, kinematic	: No data a	vailable
Explo	sive properties	: Not explo	sive
Oxidiz	zing properties	: The subs	tance or mixture is not classified as oxidizing.
Molec	cular weight	: No data a	vailable
	le characteristics le size	: Not applic	cable

### 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 vapor. Vapors 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

#### Information on likely routes of exposure

Inhalation Skin contact Ingestion Eye contact

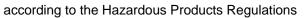
#### Acute toxicity

Harmful if swallowed. Toxic if inhaled.

### Product:

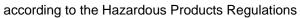
Acute oral toxicity

: Acute toxicity estimate: 1,290 mg/kg Method: Calculation method



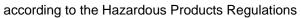


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Acute	e inhalation toxicity	:	Acute toxicity es Exposure time: Test atmosphere Method: Calcula	4 h e: vapor
Acute	e dermal toxicity	:	Acute toxicity es Method: Calcula	stimate: > 2,000 mg/kg ation method
Com	ponents:			
2-Bu	toxyethanol:			
	e oral toxicity	:	LD50 (Guinea p	ig): 1,200 mg/kg
Acute	e inhalation toxicity	:	Acute toxicity es Exposure time: Test atmosphere Method: Expert	4 h e: vapor
Acute	e dermal toxicity	:	LD50 (Guinea p	ig): > 2,000 mg/kg
Etha	nol:			
	e oral toxicity	:	LD50 (Rat): 10,4 Method: OECD	470 mg/kg Test Guideline 401
Acute	e inhalation toxicity	:	LC50 (Rat, male Exposure time: 4 Test atmosphere	4 h
Acute	e dermal toxicity	:	LD50 (Rabbit): >	> 15,800 mg/kg
Fipro	onil:			
	e oral toxicity	:	LD50 (Rat): 92 r	mg/kg
Acute	e inhalation toxicity	:	LC50 (Rat): 0.36 Exposure time: Test atmosphere	4 h
Acute	e dermal toxicity	:	LD50 (Rabbit): 3	354 mg/kg
-	corrosion/irritation			
<u>Com</u>	ponents:			
2-Bu	toxyethanol:			
Spec Meth	ies od	:		3/EEC, Annex V, B.4.
Meth Resu Etha	llt	:	Skin irritation	3/EEC, Annex V, B.4.





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Specie Metho Result	d	: Rabbit : OECD Test Guideline 404 : No skin irritation		line 404		
Fipror Specie Metho Result	es d	:	<ul> <li>Rabbit</li> <li>OECD Test Guideline 404</li> <li>No skin irritation</li> </ul>			
Cause <u>Comp</u>	us eye damage/eye irr s serious eye irritation. onents:		on			
2-Buto Specie Result Metho		:	Rabbit Irritation to eyes, r OECD Test Guide	eversing within 21 days line 405		
Ethan Specie Result Metho	9S	:	<ul> <li>Rabbit</li> <li>Irritation to eyes, reversing within 21 days</li> <li>OECD Test Guideline 405</li> </ul>			
Fipror Specie Result Metho	es	<ul> <li>Rabbit</li> <li>No eye irritation</li> <li>OECD Test Guideline 405</li> </ul>				
Skin s Not cla Respi	Respiratory or skin sensitization Skin sensitization Not classified based on available information. Respiratory sensitization Not classified based on available information.					
<b>2-Buto</b> Test T	s of exposure es d		Maximization Test Skin contact Guinea pig OECD Test Guide negative			
Ethan Test T Routes Specie Result	ype s of exposure es	:	Mouse ear swellin Skin contact Mouse negative	g test (MEST)		





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# Fipronil:

Test Type	: Buehler Test
Routes of exposure	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Test Type Routes of exposure Species Method Result	: negative

### Germ cell mutagenicity

Not classified based on available information.

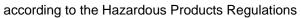
#### Components:

Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Test Type: Chromosome aberration test in vitro Result: negative
Test Type: In vitro mammalian cell gene mutation test Result: negative
Test Type: In vitro sister chromatid exchange assay in mam- malian cells Result: equivocal
Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Rat Application Route: Intraperitoneal injection Result: negative
Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Result: negative
Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative
Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative
Test Type: Chromosome aberration test in vitro Result: negative
: :

according to the Hazardous Products Regulations



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Genc	otoxicity in vivo	: Test Type: Mar cytogenetic ass Species: Rat Application Rou Result: negative	ite: Ingestion
Fipro	onil:		
	otoxicity in vitro		terial reverse mutation assay (AMES) Test Guideline 471 e
			tro mammalian cell gene mutation test Test Guideline 476 e
			omosome aberration test in vitro Test Guideline 473 e
Genc	otoxicity in vivo	cytogenetic ass Species: Mouse Application Rou	e ite: Ingestion Test Guideline 474
		mammalian live Species: Rat Application Rot	ite: Ingestion Test Guideline 486
Not c	<b>inogenicity</b> lassified based on ava <b>ponents:</b>	ilable information.	
Spec Appli	cation Route sure time	: Rat : inhalation (vapo : 2 Years : negative	or)
Expo	ies cation Route sure time	: Mouse : Ingestion : 78 weeks	
Meth Resu		: negative	8/EEC, Annex V, B.32.
Spec	ies	: Rat	
		12/20	





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Application Route Exposure time Method Result Remarks		: positive	: 104 weeks : Directive 67/548/EEC, Annex V, B.33.		
Not cla	ductive toxicity assified based on availa onents:	ble information.			
2-Butc	oxyethanol:				
	s on fertility	: Test Type: Tw Species: Mous Application Ro Result: negati	oute: Ingestion		
Effects	on fetal development	: Test Type: En Species: Rat Application Ro Result: negati			
		Species: Rat	nbryo-fetal development oute: inhalation (vapor) ve		
Ethan	ol·				
	s on fertility	: Test Type: Tw Species: Mous Application Ro Result: negati	oute: Ingestion		
Fipron	nil:				
	s on fertility	: Test Type: Tw Species: Rat Application Ro Result: negati			
Effects	on fetal development	Species: Rabb Application Ro	oute: Ingestion D Test Guideline 414		

### STOT-single exposure

Not classified based on available information.

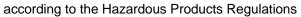
### STOT-repeated exposure

Causes damage to organs (Central nervous system, Kidney) through prolonged or repeated exposure.

according to the Hazardous Products Regulations

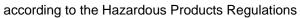


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<u>Components:</u> Fipronil: Routes of exposure Target Organs Assessment		:	Shown to produce	ngestion central nervous system, Kidney hown to produce significant health effects in animals at con- entrations of 10 mg/kg bw or less.		
Repea	ated dose toxicity					
Comp	onents:					
	es L	:	Rat 1,730 mg/kg 3,200 mg/kg Ingestion 90 Days			
	es L L ation Route	:	Rabbit 5 mg/kg 10 mg/kg Skin contact			
Expos Metho	ure time d	:	21 Days OECD Test Guide	line 410		
	L L ation Route ure time		Rat, male 0.059 mg/kg 0.019 mg/kg Ingestion 89 Weeks Directive 67/548/B	EEC, Annex V, B.33.		
-	ation toxicity assified based on availa	ble	information.			
SECTION	12. ECOLOGICAL INFO	ORN	IATION			
Ecoto	xicity					
Comp	onents:					
	<b>oxyethanol:</b> ty to fish	:	LC50 (Oncorhync Exposure time: 96 Method: OECD Te			
	ty to daphnia and other c invertebrates	:	EC50 (Daphnia m Exposure time: 48 Method: OECD To			





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Toxic plant	city to algae/aquatic s	:	ErC50 (Pseudokir mg/l Exposure time: 72 Method: OECD Te	
			EC10 (Pseudokiro mg/l Exposure time: 72 Method: OECD To	
Toxic icity)	city to fish (Chronic tox-	:	NOEC (Danio reri Exposure time: 21	o (zebra fish)): > 100 mg/l I d
aqua	city to daphnia and other tic invertebrates (Chron- kicity)	:	EC10 (Daphnia m Exposure time: 21 Method: OECD Te	
Etha	nol:			
Τοχία	city to fish	:	LC50 (Pimephale: Exposure time: 96	s promelas (fathead minnow)): 14,200 mg/l S h
	city to daphnia and other tic invertebrates	:	EC50 (Ceriodaphi Exposure time: 48	nia dubia (water flea)): 5,012 mg/l 3 h
Toxic plant	city to algae/aquatic s	:	ErC50 (Chlorella ) Exposure time: 72	vulgaris (Fresh water algae)): 275 mg/l 2 h
			EC10 (Chlorella v Exposure time: 72	ulgaris (Fresh water algae)): 11.5 mg/l 2 h
Toxic icity)	•	:	NOEC (Oryzias la Exposure time: 10	utipes (Japanese medaka)): >= 79 mg/l 00 d
aqua	city to daphnia and other tic invertebrates (Chron- kicity)	:	NOEC (Daphnia r Exposure time: 9	nagna (Water flea)): 9.6 mg/l d
	city to microorganisms	:	EC50 (Protozoa): Exposure time: 4	
II Fipro	onil:			
	city to fish	:	LC50 (Lepomis m Exposure time: 96	acrochirus (Bluegill sunfish)): 85.2 µg/l S h
	city to daphnia and other tic invertebrates	:	LC50 (Mysidopsis Exposure time: 96	s bahia (opossum shrimp)): 0.14 μg/l δ h
Toxic plant	city to algae/aquatic s	:	EC50 (Desmodes Exposure time: 96 Method: OECD Te	
			NOEC (Desmode	smus subspicatus (green algae)): 40 μg/l





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			Exposure time: 96 Method: OECD Te	
Toxicit icity)	ty to fish (Chronic tox-	:	NOEC (Cyprinodo µg/l Exposure time: 35	on variegatus (sheepshead minnow)): 2.9 5 d
	ty to daphnia and other c invertebrates (Chron-	:	NOEC (Mysidopsi Exposure time: 28	s bahia (opossum shrimp)): 0.0077 μg/l 3 d
	ty to microorganisms	:	EC50: > 1,000 mg Exposure time: 3	
Persis	stence and degradabili	ity		
<u>Comp</u>	onents:			
2-Bute	oxyethanol:			
	gradability	:	Result: Readily bio Biodegradation: 9 Exposure time: 28 Method: OECD Te	90.4 %
Ethan	ol:			
	gradability	:	Result: Readily bid Biodegradation: 8 Exposure time: 20	34 %
•• Fipror	ail·			
	gradability	:	Result: Not readily Biodegradation: 4 Exposure time: 28 Method: OECD Te	17 %
	cumulative potential			
<u>Comp</u>	onents:			
2-Buto	oxyethanol:			
Partitio	on coefficient: n- bl/water	:	log Pow: 0.81	
Ethan	ol:			
Partitio	on coefficient: n- bl/water	:	log Pow: -0.35	
Fipror				
Bioaco	cumulation	:	Species: Lepomis Bioconcentration	macrochirus (Bluegill sunfish) factor (BCF): 321
	on coefficient: n- bl/water	:	log Pow: 4	

according to the Hazardous Products Regulations



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	lity in soil				
No da	ata available				
Othe	r adverse effects				
No da	ata available				
Disp	osal methods				
-	osal methods e from residues	· Do not dispose	e of waste into sewer.		
Wabi		•	accordance with local regulations.		
Conta	aminated packaging	: Empty contain handling site for Empty contain Do not pressur expose such c	<ul> <li>Empty containers should be taken to an approved waste handling site for recycling or disposal.</li> <li>Empty containers retain residue and can be dangerous.</li> <li>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</li> </ul>		

### If not otherwise specified: Dispose of as unused product.

### SECTION 14. TRANSPORT INFORMATION

#### **International Regulations**

UNRTDG UN number Proper shipping name Class Subsidiary risk Packing group Labels Environmentally hazardous	:	UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (Ethanol, Fipronil (ISO)) 3 6.1 III 3 (6.1) no
IATA-DGR UN/ID No. Proper shipping name Class Subsidiary risk Packing group Labels Packing instruction (cargo aircraft) Packing instruction (passen- ger aircraft)	:::::::::::::::::::::::::::::::::::::::	UN 1992 Flammable liquid, toxic, n.o.s. (Ethanol, Fipronil) 3 6.1 III Flammable Liquids, Toxic 366 355
IMDG-Code UN number Proper shipping name Class Subsidiary risk Packing group	::	UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (Ethanol, Fipronil) 3 6.1 III





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	els Code ne pollutant		3 (6.1) F-E, S-D yes	
	sport in bulk accord applicable for product	-		RPOL 73/78 and the IBC Code
Dom	estic regulation			
	number er shipping name	:		LIQUID, TOXIC, N.O.S.
Pack Labe ERG	sidiary risk sing group		(Ethanol, Fipro 3 6.1 III 3 (6.1) 131 yes(Fipronil)	nii)

#### 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**

The ingredients of this product are reported in the following inventories:					
AICS	: not determined				
DSL	: not determined				
IECSC	: not determined				

#### **SECTION 16. OTHER INFORMATION**

#### Full text of other abbreviations

ACGIH ACGIH BEI CA AB OEL	:	USA. ACGIH Threshold Limit Values (TLV) ACGIH - Biological Exposure Indices (BEI) Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL CA QC OEL		Canada. British Columbia OEL Québec. Regulation respecting occupational health and safe- ty, Schedule 1, Part 1: Permissible exposure values for air- borne contaminants
ACGIH / TWA ACGIH / STEL CA AB OEL / TWA CA BC OEL / TWA CA BC OEL / STEL CA QC OEL / TWAEV	:	8-hour, time-weighted average Short-term exposure limit 8-hour Occupational exposure limit 8-hour time weighted average short-term exposure limit Time-weighted average exposure value

### SAFETY DATA SHEET according to the Hazardous Products Regulations



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#### CA QC OEL / STEV : Short-term exposure value

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

Sources of key data used to compile the Material Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen- cy, http://echa.europa.eu/
Revision Date	:	07/06/2024

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Date format	:	mm/dd/yyyy

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 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.

according to the Hazardous Products Regulations



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CA / Z8