

according to the Hazardous Products Regulations

## **Deltamethrin Collar**

Version	Revision Date:	SDS Number:	Date of last issue: 09/30/2023
8.12	11/03/2023	85705-00028	Date of first issue: 04/01/2015

### **SECTION 1. IDENTIFICATION**

Product name	:	Deltamethrin Collar
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 accord Acute toxicity (Oral)	GHS classification in accordance with the Hazardous Products Regulations Acute toxicity (Oral) : Category 4					
Skin sensitization	:	Sub-category 1A				
Reproductive toxicity	:	Category 2				
Specific target organ toxicity - repeated exposure (Oral)	:	Category 1 (Central nervous system, Immune system)				
Specific target organ toxicity - repeated exposure (Inhalation)	:	Category 1 (Central nervous system)				
GHS label elements Hazard pictograms	:					
Signal Word	:	Danger				
Hazard Statements	:	<ul> <li>H302 Harmful if swallowed.</li> <li>H317 May cause an allergic skin reaction.</li> <li>H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.</li> <li>H372 Causes damage to organs (Central nervous system, Immune system) through prolonged or repeated exposure if swallowed.</li> <li>H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.</li> </ul>				

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Precautionary Statements :		Prevention: P201 Obtain spec P202 Do not hand and understood. P260 Do not brea P264 Wash skin th P270 Do not eat, o P272 Contaminate the workplace. P280 Wear protect and face protectio	<ul> <li>P201 Obtain special instructions before use.</li> <li>P202 Do not handle until all safety precautions have been read and understood.</li> <li>P260 Do not breathe dust, fume, gas, mist, vapors or spray.</li> <li>P264 Wash skin thoroughly after handling.</li> <li>P270 Do not eat, drink or smoke when using this product.</li> <li>P272 Contaminated work clothing should not be allowed out of</li> </ul>		
		unwell. Rinse mou P302 + P352 IF O P308 + P313 IF e P333 + P313 If sk tion.	330 IF SWALLOWED: Call a doctor if you feel ath. IN SKIN: Wash with plenty of water. exposed or concerned: Get medical attention. in irritation or rash occurs: Get medical atten- e off contaminated clothing and wash it before		
		Storage: P405 Store locked	dup.		
		Disposal:	contents and container to an approved waste		
Cutane			r stinging on the face and mucosae. Howev- ansitory nature (max. 24 hours).		

### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
Polyvinyl chloride	Ethene, chloro-, homopolymer	9002-86-2	>= 30 - < 60 *
Triphenyl phosphate	Phosphoric acid, triphenyl ester	115-86-6	>= 30 - < 60 *
Deltamethrin (ISO)	No data availa- ble	52918-63-5	>= 1 - < 5 *
Titanium dioxide	Titanic anhy- dride	13463-67-7	>= 1 - < 5 *

\* Actual concentration or concentration range is withheld as a trade secret

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SECTION	4. FIRST AID MEASU	RES			
Gene	ral advice	advice imme	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, reading the set of	move to fresh air. attention		
In cas	se of skin contact	: In case of co of water. Remove con Get medical Wash clothin	ntact, immediately flush skin with soap and plent taminated clothing and shoes.		
In cas	se of eye contact	: Flush eyes w	ith water as a precaution. attention if irritation develops and persists.		
lf swa	allowed	: If swallowed, Get medical Rinse mouth	DO NOT induce vomiting.		
	important symptoms ffects, both acute and ed	: Harmful if sw May cause a Suspected o unborn child. Causes dam exposure if s Causes dam exposure if ir This product Pyrethroid po	rallowed. n allergic skin reaction. f damaging fertility. Suspected of damaging the age to organs through prolonged or repeated wallowed. age to organs through prolonged or repeated		
Prote	ction of first-aiders	: First Aid resp and use the	ponders should pay attention to self-protection, recommended personal protective equipment rential for exposure exists (see section 8).		
Notes	s to physician		matically and supportively.		

#### CTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Unsuitable extinguishing media	:	Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Specific hazards during fire fighting	:	Exposure to combustion products may be a hazard to health.
Hazardous combustion prod- ucts	:	Carbon oxides Nitrogen oxides (NOx) Bromine compounds Chlorine compounds Oxides of phosphorus
Specific extinguishing meth-	:	Use extinguishing measures that are appropriate to local cir-



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:	ods Special protective equipment for fire-fighters		:	cumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to so. Evacuate area. In the event of fire, wear self-contained breathing apparatu Use personal protective equipment.	
SEC	TION 6.	ACCIDENTAL RELE	ASI	EMEASURES	
t	Personal precautions, protec- tive equipment and emer- gency procedures		:	Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).	
I	Environmental precautions		:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.	
-	Methods and materials for containment and cleaning up		:	Sweep up or vacuum up spillage and collect in suitable container for disposal. Local or national regulations may apply to releases and disposal of this material, as well as those materials and ite employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regard certain local or national requirements.	

### SECTION 7. HANDLING AND STORAGE

Technical measures		See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation		If sufficient ventilation is unavailable, use with local exhaust ventilation.
Advice on safe handling		Do not get on skin or clothing. Do not breathe dust, fume, gas, mist, vapors or spray. Do not swallow. Avoid contact with eyes. Wash skin thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment Do not eat, drink or smoke when using this product. Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage		Keep in properly labeled containers. Store locked up. Store in accordance with the particular national regulations.
Materials to avoid	:	Do not store with the following product types: Strong oxidizing agents Self-reactive substances and mixtures Organic peroxides





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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
Polyvinyl chloride	9002-86-2	TWA (Res- pirable)	1 mg/m <sup>3</sup>	CA BC OEL
		TWA (Respirable particulate matter)	1 mg/m <sup>3</sup>	ACGIH
Triphenyl phosphate	115-86-6	TWA	3 mg/m <sup>3</sup>	CA AB OEL
		TWA	3 mg/m <sup>3</sup>	CA BC OEL
		TWAEV	3 mg/m <sup>3</sup>	CA QC OEL
		TWA	3 mg/m <sup>3</sup>	ACGIH
Deltamethrin (ISO)	52918-63-5	TWA	15 µg/m3 (OEB 3)	Internal
	Further inform	ation: DSEN, Sk	in	
		Wipe limit	100 µg/100 cm <sup>2</sup>	Internal
Titanium dioxide	13463-67-7	TWA	10 mg/m <sup>3</sup>	CA AB OEL
		TWA (Total dust)	10 mg/m³	CA BC OEL
		TWÁ (respir- able dust fraction)	3 mg/m <sup>3</sup>	CA BC OEL
		TWAEV (to- tal dust)	10 mg/m <sup>3</sup>	CA QC OEL
		TWA (Respirable particulate matter)	2.5 mg/m <sup>3</sup> (Titanium dioxide)	ACGIH

This substance(s) is not bioavailable and therefore does not contribute to a dust inhalation hazard.

Titanium dioxide

Engineering measures :	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.
Dereand protective equipment	

#### Personal protective equipment

Respiratory protection	:	If adequate local exhaust ventilation is not available or
		exposure assessment demonstrates exposures outside the

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Hand	ter type protection aterial	recommendec : Particulates ty : Chemical-resi	
	marks rotection	If the work env mists or aeros Wear a facesh	ble gloving. lasses with side shields or goggles. vironment or activity involves dusty conditions, sols, wear the appropriate goggles. hield or other full face protection if there is a frect contact to the face with dusts, mists, or
Skin a	and body protection	: Work uniform Additional boo task being per disposable su	or laboratory coat. ly garments should be used based upon the formed (e.g., sleevelets, apron, gauntlets, its) to avoid exposed skin surfaces. te degowning techniques to remove potentially clothing.
Hygie	ne measures	: If exposure to eye flushing s working place When using d Contaminated workplace. Wash contam The effective of engineering co appropriate de industrial hygi	chemical is likely during typical use, provide ystems and safety showers close to the

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	solid
Color	:	white
Odor	:	very faint
Odor Threshold	:	No data available
рН	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	> 148.8 °C
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Not classified as a flammability hazard

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	Flamma	bility (liquids)	:	No data available	
		xplosion limit / Upper pility limit	:	No data available	
		explosion limit / Lower pility limit	:	No data available	
	Vapor p	ressure	:	Not applicable	
	Relative	e vapor density	:	Not applicable	
	Relative	edensity	:	No data available	
	Density		:	No data available	
	Solubilit Wate	y(ies) er solubility	:	No data available	
		n coefficient: n-	:	Not applicable	
	octanol/ Autoigni	ition temperature	:	No data available	
	Decomp	oosition temperature	:	No data available	
	Viscosit Visco	y osity, kinematic	:	Not applicable	
	Explosiv	ve properties	:	Not explosive	
	Oxidizin	g properties	:	The substance or	mixture is not classified as oxidizing.
	Molecul	ar weight	:	Not applicable	
	Particle	size	:	Not applicable	

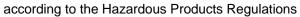
### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reac-	:	Can react with strong oxidizing agents.
tions		
Conditions to avoid	:	None known.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition		No hazardous decomposition products are known.
products		

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SECTION	11. TOXICOLOGICAL I	NF	ORMATION		
Infor	mation on likely routes	of	exposure		
Inges	contact tion contact				
	<b>e toxicity</b> Iful if swallowed.				
Prod	uct:				
Acute	e oral toxicity	:		estimate: 1,668 mg/kg Jation method	
Acute	e inhalation toxicity	:	Exposure time Test atmosph		
Com	ponents:				
Triph	enyl phosphate:				
Acute	e oral toxicity	:	LD50 (Rat): >	5,000 mg/kg	
Acute	e dermal toxicity	:	LD50 (Rabbit)	: > 10,000 mg/kg	
Delta	methrin (ISO):				
Acute	e oral toxicity	:	LD50 (Rat): 6	6.7 mg/kg	
			LD50 (Rat): 9	- 139 mg/kg	
			LD50 (Mouse	): 19 - 34 mg/kg	
Acute	e inhalation toxicity	:	LC50 (Rat): 0 Exposure time Test atmosph	e: 2 h	
Acute	e dermal toxicity	:	LD50 (Rabbit)	: 2,000 mg/kg	
			LD50 (Rat): >	800 mg/kg	
	e toxicity (other routes of nistration)	:	LD50 (Rat): 2 Application Ro	.5 mg/kg oute: Intravenous	
			LD50 (Mouse Application Ro	): 10 mg/kg oute: Intraperitoneal	
Titan	ium dioxide:				
Acute	e oral toxicity	:	LD50 (Rat): >	5,000 mg/kg	
Acute	e inhalation toxicity	:	LC50 (Rat): >	6.82 mg/l	





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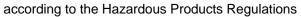
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		Exposure time Test atmosphe Assessment: T tion toxicity	: 4 h re: dust/mist he substance or mixture has no acute inhala-
	corrosion/irritation assified based on avai	lable information.	
Comp	onents:		
<b>Triphe</b> Specie Metho Result	d	: Rabbit : OECD Test Gu : No skin irritatio	
	methrin (ISO):		
Specie Result		: Rabbit : No skin irritatio	n
Titani	um dioxide:		
Specie Result		: Rabbit : No skin irritatic	n
Not cla	us eye damage/eye in assified based on avai ponents:		
Triphe	enyl phosphate:		
Specie Result Metho	t	: Rabbit : No eye irritatio : OECD Test Gu	
Deltar	nethrin (ISO):		
Specie Result		: Rabbit : Moderate eye	irritation
Titani	um dioxide:		
Specie Result		: Rabbit : No eye irritatio	n
Respi	ratory or skin sensit	ization	
	sensitization ause an allergic skin r	eaction.	
Respi	ratory sensitization		

Not classified based on available information.

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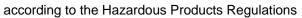


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<u>Com</u>	ponents:	
Test	es of exposure ies od	<ul> <li>Maximization Test</li> <li>Skin contact</li> <li>Guinea pig</li> <li>OECD Test Guideline 406</li> <li>negative</li> </ul>
Test Route Spec Resu Test	es of exposure ies llt Type es of exposure ies	<ul> <li>Maximization Test</li> <li>Dermal</li> <li>Guinea pig</li> <li>negative</li> <li>Human repeat insult patch test (HRIPT)</li> <li>Dermal</li> <li>Humans</li> <li>positive</li> </ul>
<b>Titan</b> Test	<b>ium dioxide:</b> Type es of exposure ies	<ul> <li>Local lymph node assay (LLNA)</li> <li>Skin contact</li> <li>Mouse</li> <li>negative</li> </ul>
Not c	n cell mutagenicity classified based on ava	lable information.
Triph	ponents: nenyl phosphate: otoxicity in vitro	<ul> <li>Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative</li> <li>Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative</li> <li>Test Type: In vitro mammalian cell gene mutation tes Result: negative</li> </ul>
	amethrin (ISO): otoxicity in vitro	<ul> <li>Test Type: Bacterial reverse mutation assay (AMES) Result: negative</li> <li>Test Type: DNA Repair Test system: Escherichia coli Result: negative</li> </ul>





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		Tes		nosomal aberration nese hamster ovary cells
		Tes Co	st system: Chi	o mammalian cell gene mutation test nese hamster lung cells OAEL: 20 mg/kg
Geno	toxicity in vivo	Spe Apj	st Type: Micro ecies: Mouse blication Route sult: negative	
		Spe Apj	et Type: dominecies: Mouse blication Route sult: negative	nant lethal test e: Oral
		Spe Ce Apj	st Type: sister ecies: Mouse I type: Bone r blication Route sult: negative	
Titani	ium dioxide:			
Geno	toxicity in vitro		st Type: Bacte sult: negative	rial reverse mutation assay (AMES)
Geno	toxicity in vivo	Spe	st Type: In viv ecies: Mouse sult: negative	o micronucleus test
	<b>nogenicity</b> assified based on ava	lable info	mation.	
<u>Comp</u>	oonents:			
Delta	methrin (ISO):			
Expos NOAE LOAE Resul	cation Route sure time EL EL	: ora : 104 : 8 m : 4 m : pos	use, male and I (feed) I weeks ng/kg body we ng/kg body we sitive nph nodes	ight
	cation Route sure time	: ora : 2 Y	r, male and fe I (feed) ears gative	male
Speci	es	: Do	g, male and fe	emale
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		: oral (feed) : 2 Years : 1 mg/kg body v : negative	veight
Speci Applic Expos Metho Resul Rema	cation Route sure time od t	mans. This substance contribute to a	
ment	logenicity - Assess-	animals.	
Suspe <u>Com</u> r	oonents:	y. Suspected of dar	naging the unborn child.
-	enyl phosphate: s on fertility	: Test Type: One Species: Rat Application Ro Result: negativ	
Effect	s on fetal development	Species: Rabb Application Ro	ute: Ingestion ) Test Guideline 414
Delta	methrin (ISO):		
Effect	s on fertility	Species: Rat Application Rot Early Embryon weight Symptoms: No Remarks: Sign Test Type: Two Species: Rat Application Rot Early Embryon weight	ic Development: NOAEL: 50 mg/kg body effects on fertility., Embryo-fetal toxicity. ificant toxicity observed in testing p-generation reproduction toxicity study

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		Test Type: Fer Species: Rat, r Application Rou Fertility: LOAEI Symptoms: Eff Target Organs:	nale ute: Oral _: 1 mg/kg body weight ects on fertility.	
Effects on fetal development		Developmental Result: Skeleta		
		•	•	
		Developmental		
	productive toxicity - As- ssment		e of adverse effects on sexual function and on development, based on animal experiments.	

### STOT-single exposure

Not classified based on available information.

### **Components:**

### Deltamethrin (ISO):

Assessment

May cause respiratory irritation. :

#### STOT-repeated exposure

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

Causes damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.

#### **Components:**

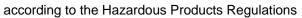
#### **Deltamethrin (ISO):**

Routes of exposure Target Organs Assessment	:	Ingestion Central nervous system, Immune system Causes damage to organs through prolonged or repeated exposure.
Routes of exposure Target Organs Assessment	:	

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		exposure.	
Repe	ated dose toxicity		
<u>Comp</u>	oonents:		
Triph	enyl phosphate:		
Specie	es	: Rat	
NOAE		: 105 mg/kg	
	ation Route	: Ingestion	
Metho	sure time od	: 90 Days : OECD Test G	uideline 408
Delta	methrin (ISO):		
Specie		: Rat, male and	l female
NOAE		: 1 mg/kg	
LOAE	L cation Route	: 2.5 mg/kg : Oral	
	sure time	: 13 Weeks	
	t Organs	: Nervous syste	em
Symp	5	: hyperexcitabil	
Speci		: Rat	
LOAE		: 3 mg/m3	
	ation Route	: inhalation (du : 2 wk / 5 d/wk	
Symp			a, respiratory tract irritation
Speci		: Dog	
NOAE		: 0.1 mg/kg	
LOAE		: 1 mg/kg	
	ation Route	: Oral : 13 Weeks	
	t Organs	: Nervous syste	em
Symp			ne pupil, Vomiting, Tremors, Diarrhea, Salivation
Specie		: Rat	
NOAE LOAE		: 14 mg/kg : 54 mg/kg	
	ation Route	: 54 mg/kg : Oral	
	sure time	: 91 d	
	t Organs	: Nervous syste	em
Specie		: Mouse	
LOAE		: 6 mg/kg	
	ation Route	: Oral : 12 Weeks	
	t Organs	: Immune syste	m
Symp		: immune syste	
Titani	um dioxide:		
	es	: Rat	





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Ap	DAEL plication Route posure time	: 24,000 mg/kg : Ingestion : 28 Days					
NC Ap	ecies DAEL plication Route posure time	: Rat : 10 mg/m³ : inhalation (dust/ : 2 y	10 mg/m³ inhalation (dust/mist/fume)				
	Aspiration toxicity Not classified based on available information.						
Ex	perience with human exp	osure					
	<u>oduct:</u> in contact	Based on Anima					
Ing	jestion		May irritate skin. Remarks: May be harmful if swallowed.				
<u>Co</u>	mponents:						
De	Itamethrin (ISO):						
Inh	alation	Headache, Naus	iratory tract irritation, Dizziness, Sweating, sea, Vomiting, anorexia, Fatigue, tingling, red vision, muscle twitching				
Ski	in contact	: Symptoms: Skin sea, Vomiting, D	irritation, Erythema, pruritis, Headache, Nau- vizziness, tingling, Sweating, muscle twitching,				
Ing	jestion		atigue, anorexia, Allergic reactions cle pain, Small pupils				
SECTIC	ON 12. ECOLOGICAL INF	ORMATION					
-	- 4 1 - 14						
	otoxicity						
	<u>oduct:</u> xicity to fish	Exposure time: 9	es promelas (fathead minnow)): > 100 mg/l ∂6 h Test Guideline 203				
	xicity to daphnia and other uatic invertebrates	Exposure time: 4	magna (Water flea)): 13 mg/l 48 h Test Guideline 202				

### Ecotoxicology Assessment

Chronic aquatic toxicity :		Harmful to aquatic life with long lasting effects.
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### **Components:**

#### **Triphenyl phosphate:**

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.4 mg/l



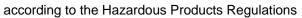
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Toxicity to daphnia and other aquatic invertebrates		:	EC50 (Mysidopsis mg/l Exposure time: 96	s bahia (opossum shrimp)): > 0.18 - 0.32 i h
Toxicity to algae/aquatic plants		:	ErC50 (Raphidoce 3.73 mg/l Exposure time: 72 Method: OECD Te	
			NOEC (Raphidoce 0.25 mg/l Exposure time: 72 Method: OECD Te	
Toxicity	y to fish (Chronic tox-	:	EC10 (Danio rerio Exposure time: 73 Method: OECD Te	
	y to daphnia and other invertebrates (Chron- ity)	:	NOEC (Daphnia n Exposure time: 21 Method: OECD Te	
Deltam	nethrin (ISO):			
	y to fish	:	LC50 (Cyprinodor mg/l Exposure time: 96	n variegatus (sheepshead minnow)): 0.0004 5 h
			LC50 (Oncorhync Exposure time: 96	hus mykiss (rainbow trout)): 0.00039 mg/l i h
	y to daphnia and other c invertebrates	:	EC50 (Mysidopsis Exposure time: 48	s bahia (opossum shrimp)): 0.0037 μg/l s h
			EC50 (Daphnia m Exposure time: 48	agna (Water flea)): 0.0035 mg/l h
			LC50 (Gammarus Exposure time: 96	fasciatus (freshwater shrimp)): 0.0003 μg/l h
Toxicit <u>y</u> plants	y to algae/aquatic	:	mg/l Exposure time: 72 Method: OECD Te	
Toxicity	y to fish (Chronic tox-	:	NOEC (Pimephale mg/l Exposure time: 36	es promelas (fathead minnow)): 0.000022 i d
			NOEC (Pimephale mg/l Exposure time: 26	es promelas (fathead minnow)): 0.000017 i0 d



according to the Hazardous Products Regulations

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	y to daphnia and other c invertebrates (Chron- ity)	:	NOEC (Daphnia n Exposure time: 21	nagna (Water flea)): 0.0041 µg/l d
	<b>Titanium dioxide:</b> Toxicity to fish			
Toxicit			LC50 (Oncorhync Exposure time: 96 Method: OECD Te	
	Toxicity to daphnia and other aquatic invertebrates		EC50 (Daphnia m Exposure time: 48	agna (Water flea)): > 100 mg/l s h
Toxicity plants	Toxicity to algae/aquatic plants		EC50 (Skeletoner Exposure time: 72	na costatum (marine diatom)): > 10,000 mg/l ! h
Toxicit	y to microorganisms	:	EC50: > 1,000 mg Exposure time: 3 Method: OECD Te	h
Persis	tence and degradabili	ty		
Comp	Components:			
-	n <b>yl phosphate:</b> Iradability	:	Result: Readily bio Biodegradation: 8 Exposure time: 28	33 - 94 %
	<b>nethrin (ISO):</b> y in water	:	Hydrolysis: 0 %(3	0 d)
Bioaco	cumulative potential			
<u>Comp</u>	onents:			
Triphe	nyl phosphate:			
Bioacc	umulation	:	Species: Oryzias Bioconcentration f	atipes (Orange-red killifish) factor (BCF): 144
Partitio octano	n coefficient: n- I/water	:	log Pow: 4.63	
Deltan	nethrin (ISO):			
Bioacc	umulation	:		macrochirus (Bluegill sunfish) factor (BCF): 1,800
Partitio octano	n coefficient: n- I/water	:	log Pow: 4.6	





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Mobil	lity in soil		
<u>Comp</u>	oonents:		
Delta	methrin (ISO):		
	bution among environ- al compartments	: log Koc: 7.2	
Other	r adverse effects		
No da	ata available		
CTION	13. DISPOSAL CONSI	DERATIONS	
Dieno	osal methods		
-	e from residues	: Do not dispose	of waste into sewer.
Canta		Dispose of in a	ccordance with local regulations.
Conta	aminated packaging		ers should be taken to an approved waste or recycling or disposal.
		If not otherwise	e specified: Dispose of as unused product.
	14. TRANSPORT INFO		e specified: Dispose of as unused product.
ECTION	14. TRANSPORT INFO		specified: Dispose of as unused product.
ECTION Interr UNR1	national Regulations	DRMATION	specified: Dispose of as unused product.
ECTION Interr UNRT Not re IATA-	national Regulations IDG egulated as a dangerous -DGR	DRMATION s good	specified: Dispose of as unused product.
ECTION Interr UNRT Not re IATA- Not re IMDG	national Regulations FDG egulated as a dangerous -DGR egulated as a dangerous G-Code	DRMATION s good s good	specified: Dispose of as unused product.
ECTION Interr UNRT Not re IATA- Not re IMDG Not re	national Regulations FDG egulated as a dangerous -DGR egulated as a dangerous G-Code egulated as a dangerous	DRMATION s good s good s good	
ECTION Interr UNRT Not re IATA- Not re IMDG Not re Trans	national Regulations FDG egulated as a dangerous -DGR egulated as a dangerous G-Code egulated as a dangerous	DRMATION s good s good s good g to Annex II of MA	RPOL 73/78 and the IBC Code

### **Domestic regulation**

**TDG** Not regulated as a dangerous good

### Special precautions for user

Not applicable

### SECTION 15. REGULATORY INFORMATION

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

according to the Hazardous Products Regulations



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

#### Full text of other abbreviations

ACGIH CA AB OEL	:	USA. ACGIH Threshold Limit Values (TLV) Canada. Alberta, Occupational Health and Safety Code (table
CA BC OEL CA QC OEL	:	2: OEL) Canada. British Columbia OEL Québec. Regulation respecting occupational health and safe- ty, Schedule 1, Part 1: Permissible exposure values for air-
ACGIH / TWA CA AB OEL / TWA CA BC OEL / TWA CA QC OEL / TWAEV	:	borne contaminants 8-hour, time-weighted average 8-hour Occupational exposure limit 8-hour time weighted average Time-weighted average 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 Date format	-	11/03/2023 mm/dd/yyyy



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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.

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