according to GB/T 16483 and GB/T 17519



Deltamethrin Collar

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/06
8.0	2024/09/28	85708-00030	Date of first issue: 2015/04/01

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Deltamethrin Collar			
Manufacturer or supplier's de	etai	ils			
Company	:	MSD			
Address	:	No. 485 Jing Tai Road Pu Tuo District - Shanghai - China 200331			
Telephone	:	+1-908-740-4000			
Emergency telephone number	:	86-571-87268110			
E-mail address	:	EHSDATASTEWARD@msd.com			
Recommended use of the chemical and restrictions on use					
Recommended use Restrictions on use	:	Veterinary product Not applicable			

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance Colour Odour	:	solid white very faint				
pected of damaging the unborr	Harmful if swallowed. May cause an allergic skin reaction. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.					
GHS Classification						
Acute toxicity (Oral)	:	Category 4				
Skin sensitisation	:	Category 1				
Reproductive toxicity	:	Category 2				
Specific target organ toxicity - repeated exposure	:	Category 2				
Short-term (acute) aquatic hazard	:	Category 3				
Long-term (chronic) aquatic hazard	:	Category 3				

according to GB/T 16483 and GB/T 17519

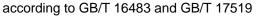


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	label elements		•
nazai	rd pictograms		
Signa	l word	: Warning	•
Hazaı	rd statements	H361fd Suspe ing the unborn H373 May car peated expos	use an allergic skin reaction. ected of damaging fertility. Suspected of damag- n child. use damage to organs through prolonged or re-
Preca	utionary statements	P202 Do not I and understoo P260 Do not I P264 Wash s P270 Do not o P272 Contam the workplace P273 Avoid re	preathe dust/ fume/ gas/ mist/ vapours/ spray. kin thoroughly after handling. eat, drink or smoke when using this product. inated work clothing should not be allowed out of a. elease to the environment. rotective gloves/ protective clothing/ eye protec-
		CENTER/ doo P302 + P352 P308 + P313 attention. P333 + P313 vice/ attention	+ P330 IF SWALLOWED: Call a POISON ctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. IF exposed or concerned: Get medical advice/ If skin irritation or rash occurs: Get medical ad- t. Take off contaminated clothing and wash it before
		Storage: P405 Store lo Disposal:	cked up.
		-	e of contents/ container to an approved waste

Physical and chemical hazards

Not classified based on available information.





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Health hazards

Harmful if swallowed. May cause an allergic skin reaction. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

Environmental hazards

Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Other hazards which do not result in classification

Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).

3. COMPOSITION/INFORMATION ON INGREDIENTS

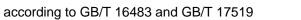
Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Polyvinyl chloride	9002-86-2	>= 50 -< 70
Triphenyl phosphate	115-86-6	>= 30 -< 50
deltamethrin (ISO)	52918-63-5	>= 3 -< 10
Titanium dioxide	13463-67-7	>= 1 -< 10

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 soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	:	Harmful if swallowed. May cause an allergic skin reaction. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate





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		ion of first-aiders o physician	:	and use the recor when the potentia	ate poisoning. ers should pay attention to self-protection, nmended personal protective equipment I for exposure exists (see section 8). cally and supportively.
5. FIR	REFIGH	TING MEASURES			
S	Suitable	e extinguishing media	:	Water spray Alcohol-resistant Carbon dioxide (C Dry chemical	
	Jnsuita nedia	ble extinguishing	:	None known.	
	Specific ighting	hazards during fire-	:	Exposure to comb	pustion products may be a hazard to health.
	Hazard ucts	ous combustion prod-	:	Carbon oxides Nitrogen oxides (I Bromine compour Chlorine compour Oxides of phosph	nds nds
	Specific ods	extinguishing meth-	:	cumstances and t Use water spray t	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
	Special or firefi	protective equipment ghters	:	In the event of fire Use personal prot	e, wear self-contained breathing apparatus. ective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	:	Use personal protective equipment. Follow safe handling advice (see section 7) and personal pro- tective equipment recommendations (see section 8).
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 con- tainer for disposal. Local or national regulations may apply to releases and dis-

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		employed in the mine which re Sections 13 a	naterial, as well as those materials and items he cleanup of releases. You will need to deter- gulations are applicable. nd 15 of this SDS provide information regarding r national requirements.
7. HANDL	ING AND STORAGE		
Hand	lling		
Tech	nical measures		ing measures under EXPOSURE PERSONAL PROTECTION section.
Local	/Total ventilation		ntilation is unavailable, use with local exhaust
	e on safe handling	: Do not get on Do not breath Do not swallo Avoid contact Wash skin tho Handle in acc practice, base sessment Do not eat, dr Take care to p environment.	with eyes. proughly after handling. ordance with good industrial hygiene and safety ed on the results of the workplace exposure as- ink or smoke when using this product. prevent spills, waste and minimize release to the
Avoid	lance of contact	: Oxidizing age	nts
	age litions for safe storage rials to avoid	Store locked u Store in accor	erly labelled containers. up. dance with the particular national regulations. vith the following product types:
	aging material	Strong oxidizi	

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Polyvinyl chloride	9002-86-2	PC-TWA (Total dust)	5 mg/m3	CN OEL
		TWA (Res- pirable par- ticulate mat- ter)	1 mg/m3	ACGIH
Triphenyl phosphate	115-86-6	TWA	3 mg/m3	ACGIH
deltamethrin (ISO)	52918-63-5	PC-TWA	0.03 mg/m3	CN OEL



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11		TWA	15 µg/m3 (OEB 3)	Internal
	Further inform	ation: DSEN, Sk	in	
		Wipe limit	100 µg/100 cm ²	Internal
Titanium dioxide	13463-67-7	PC-TWA	8 mg/m3	CN OEL
		(Total dust)		
	Further inform	nation: G2B - Pos	sibly carcinogenic to	humans
		TWA (Res-	2.5 mg/m3	ACGIH
		pirable par-	(Titanium dioxide)	
		ticulate mat-		
		ter)		

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 con- tainment devices). Minimize open handling.
Personal protective equipr	nent	
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	:	Particulates type
Eye/face protection	:	Wear safety glasses with side shields or goggles. If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.
Skin and body protection	:	Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, dis- posable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.
Hand protection		
Material	:	Chemical-resistant gloves
Remarks Hygiene measures	:	Consider double gloving. If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the work- ing place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the

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workplace.

Wash contaminated clothing before re-use. The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	solid
Colour	:	white
Odour	:	very faint
Odour 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
Flammability (liquids)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	No data available
Density	:	No data available
Solubility(ies) Water solubility	:	No data available
Partition coefficient: n- octanol/water	:	Not applicable

according to GB/T 16483 and GB/T 17519

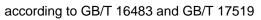


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Auto-iç	gnition temperature	:	No data availab	le
Decon	nposition temperature	:	No data availab	le
Viscos Vis	sity cosity, kinematic	:	Not applicable	
Explos	sive properties	:	Not explosive	
Oxidiz	ing properties	:	The substance of	or mixture is not classified as oxidizing.
Molec	ular weight	:	Not applicable	
Particl Particl	e characteristics e size	:	Not applicable	
10. STABII		Y		
	vity ical stability pility of hazardous reac	:	Stable under no	s a reactivity hazard. rmal conditions. trong oxidizing agents.
Incom	tions to avoid patible materials dous decomposition cts	:	None known. Oxidizing agents No hazardous d	s ecomposition products are known.
11. TOXICO	OLOGICAL INFORMA	τιοι	1	
Expos	ure routes	:	Skin contact Ingestion Eye contact	
	toxicity ul if swallowed.			
<u>Produ</u>				
Acute	oral toxicity	:	Acute toxicity est Method: Calculat	timate: 1,668 mg/kg tion method
Acute	inhalation toxicity	:	Acute toxicity est Exposure time: 4 Test atmosphere Method: Calculat	h :: dust/mist
<u>Comp</u>	onents:			
	enyl phosphate: oral toxicity	:	LD50 (Rat): > 5,0	000 mg/kg

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Acute	dermal toxicity	:	LD50 (Rabbit): > 1	10,000 mg/kg
deltar	methrin (ISO):			
Acute	oral toxicity	:	LD50 (Rat): 66.7 r	ng/kg
			LD50 (Rat): 9 - 13	9 mg/kg
			LD50 (Mouse): 19	- 34 mg/kg
Acute	inhalation toxicity	:	LC50 (Rat): 0.8 m Exposure time: 2 Test atmosphere:	ĥ
Acute	dermal toxicity	:	LD50 (Rabbit): 2,0	000 mg/kg
			LD50 (Rat): > 800	mg/kg
	toxicity (other routes of istration)	:	LD50 (Rat): 2.5 m Application Route	
			LD50 (Mouse): 10 Application Route	
Titani	um dioxide:			
Acute	oral toxicity	:	LD50 (Rat): > 5,00	00 mg/kg
Acute	inhalation toxicity	:	LC50 (Rat): > 6.82 Exposure time: 4 Test atmosphere: Assessment: The tion toxicity	h
_	corrosion/irritation assified based on availa	ble	information.	
<u>Comp</u>	oonents:			
Triph	enyl phosphate:			
Speci		÷	Rabbit	line 404
Metho Resul		:	OECD Test Guide No skin irritation	m i€ 404
deltar	nethrin (ISO):			
Speci Resul		:	Rabbit No skin irritation	
Titani	um dioxide:			





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Resul	t	: No skin irritatio	on
Serio	us eye damage/eye	irritation	
Not cl	assified based on ava	ailable information.	
<u>Comp</u>	oonents:		
-	enyl phosphate:		
Speci Resul		: Rabbit : No eye irritatio	n
Metho		: OECD Test G	
-	methrin (ISO):		
Speci		: Rabbit	initation
Resul	l.	: Moderate eye	imation
Titani Speci	ium dioxide:	: Rabbit	
	62		
Resul Respi		: No eye irritatio	n
Resul Respi Skin s May c Respi	t iratory or skin sensi sensitisation cause an allergic skin iratory sensitisation	: No eye irritation reaction.	n
Resul Respi Skin s May c Respi Not cl	it iratory or skin sens i sensitisation cause an allergic skin	: No eye irritation reaction.	n
Resul Respi Skin s May c Respi Not cl <u>Comp</u>	it iratory or skin sensi sensitisation cause an allergic skin iratory sensitisation assified based on ava conents:	: No eye irritation reaction.	n
Resul Respi Skin s May c Respi Not cl <u>Comp</u> Tripho Test T	t iratory or skin sensi sensitisation cause an allergic skin iratory sensitisation assified based on ava <u>conents:</u> enyl phosphate: Гуре	: No eye irritation itisation reaction. ailable information. : Maximisation	
Resul Respi Skin s May c Respi Not cl <u>Comp</u> Triph Test T Expos	t iratory or skin sensi sensitisation cause an allergic skin iratory sensitisation assified based on ava <u>conents:</u> enyl phosphate: Type sure routes	: No eye irritation itisation reaction. ailable information. : Maximisation	
Resul Respi Skin s May c Respi Not cl <u>Comp</u> Tripho Test T Expos Speci	iratory or skin sensi sensitisation cause an allergic skin iratory sensitisation assified based on ava <u>conents:</u> enyl phosphate: Fype sure routes es	: No eye irritation itisation reaction. ailable information. : Maximisation : Skin contact : Guinea pig	Гest
Resul Respi Skin s May c Respi Not cl <u>Comp</u> Triph Test T Expos	iratory or skin sensi sensitisation cause an allergic skin iratory sensitisation assified based on ava <u>conents:</u> enyl phosphate: Fype sure routes es	: No eye irritation itisation reaction. ailable information. : Maximisation	Гest
Resul Respi Skin s May c Respi Not cl Comp Triphe Test T Expos Speci Metho Resul deltar	iratory or skin sensi sensitisation cause an allergic skin iratory sensitisation assified based on ava <u>conents:</u> enyl phosphate: Γype sure routes es od t methrin (ISO):	: No eye irritation itisation reaction. ailable information. : Maximisation : Skin contact : Guinea pig : OECD Test Guinea	Гest
Resul Respi Skin s May c Respi Not cl Comp Test T Expos Speci Metho Resul deltar Test T	iratory or skin sensi sensitisation cause an allergic skin iratory sensitisation assified based on ava <u>conents:</u> enyl phosphate: Fype sure routes es od t methrin (ISO): Fype	: No eye irritation itisation reaction. ailable information. : Maximisation : Skin contact : Guinea pig : OECD Test Ge : negative : Maximisation	Γest uideline 406
Resul Respi Skin s May c Respi Not cl Comp Triphe Test 1 Expos Speci Metho Resul deltar Test 1 Expos	iratory or skin sensi sensitisation cause an allergic skin iratory sensitisation assified based on ava <u>conents:</u> enyl phosphate: Type sure routes es od it methrin (ISO): Type sure routes	 No eye irritation itisation reaction. ailable information. Skin contact Guinea pig OECD Test Ge negative Maximisation 	Γest uideline 406
Resul Respi Skin s May c Respi Not cl Comp Test T Expos Speci Metho Resul deltar Test T	iratory or skin sensi sensitisation cause an allergic skin iratory sensitisation assified based on ava <u>conents:</u> enyl phosphate: Type sure routes es od t methrin (ISO): Type sure routes es	: No eye irritation itisation reaction. ailable information. : Maximisation : Skin contact : Guinea pig : OECD Test Ge : negative : Maximisation	Γest uideline 406
Resul Respi Skin s May c Respi Not cl <u>Comp</u> Triph Test T Expos Speci Resul deltar Test T Expos Speci Resul	t iratory or skin sensitis sensitisation cause an allergic skin iratory sensitisation assified based on avain conents: enyl phosphate: Type sure routes es od t methrin (ISO): Type sure routes es od t Type sure routes es t Type	 No eye irritation itisation reaction. ailable information. Skin contact Guinea pig OECD Test Go negative Loermal Guinea pig negative Human repeat 	Γest uideline 406
Resul Respi Skin s May c Respi Not cl <u>Comp</u> Triph Test T Expos Speci Resul deltar Test T Expos Speci Resul	t iratory or skin sensitisation cause an allergic skin iratory sensitisation assified based on avain conents: enyl phosphate: Fype sure routes es od t fype sure routes es t Fype sure routes es t Fype sure routes es t	 No eye irritation itisation reaction. ailable information. Skin contact Guinea pig OECD Test Go negative Maximisation Dermal Guinea pig negative 	Γest Jideline 406 Fest

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ersion .0	Revision Date: 2024/09/28	SDS Number 85708-00030	
Test	sure routes les	: Local lym : Skin conta : Mouse : negative	ph node assay (LLNA) act
Not cl	cell mutagenicity lassified based on ava	ilable informatior	٦.
	enyl phosphate: toxicity in vitro		e: Chromosome aberration test in vitro DECD Test Guideline 473 egative
			e: Bacterial reverse mutation assay (AMES) DECD Test Guideline 471 egative
		Test Type Result: ne	e: In vitro mammalian cell gene mutation test egative
	methrin (ISO): toxicity in vitro	: Test Type Result: ne	e: Bacterial reverse mutation assay (AMES) egative
			e: DNA Repair em: Escherichia coli egative
			e: Chromosomal aberration em: Chinese hamster ovary cells egative
		Test syste	e: In vitro mammalian cell gene mutation test em: Chinese hamster lung cells ation: LOAEL: 20 mg/kg ositive
Geno	toxicity in vivo	Species:	n Route: Oral

Test Type: dominant lethal test Species: Mouse Application Route: Oral Result: negative

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rsion	Revision Date: 2024/09/28	SDS Number: 85708-00030	Date of last issue: 2024/04/06 Date of first issue: 2015/04/01
		Test Type: sis Species: Mou Cell type: Bor Application Ro Result: negati	e marrow bute: Oral
Titan	ium dioxide:		
Geno	toxicity in vitro	: Test Type: Ba Result: negati	cterial reverse mutation assay (AMES) ve
Geno	toxicity in vivo	: Test Type: In Species: Mou Result: negati	
	i nogenicity lassified based on av	ailable information.	
	ponents:		
delta	methrin (ISO):		
Expo NOAI LOAE Resu	cation Route sure time EL EL	 Mouse, male oral (feed) 104 weeks 8 mg/kg body 4 mg/kg body positive Lymph nodes 	weight weight
	cation Route sure time	: Rat, male and : oral (feed) : 2 Years : negative	female
	cation Route sure time EL	Dog, male and oral (feed) 2 Years 1 mg/kg body negative	
Titan	ium dioxide:		
Speci Applie	ies cation Route sure time od It	mans. This substanc	

according to GB/T 16483 and GB/T 17519



ersion 0	Revision Date: 2024/09/28	SDS Number: 85708-00030	Date of last issue: 2024/04/06 Date of first issue: 2015/04/01
Carci ment	nogenicity - Assess-	: Limited evide animals.	ence of carcinogenicity in inhalation studies with
Suspe	oductive toxicity ected of damaging ferti conents:	lity. Suspected of d	lamaging the unborn child.
Triph	enyl phosphate: ts on fertility	Species: Rat	Route: Ingestion
Effect ment	ts on foetal develop-	Species: Ral Application F	Route: Ingestion CD Test Guideline 414
	methrin (ISO): ts on fertility	Species: Rat Application F Early Embry weight Symptoms: N	hree-generation reproduction toxicity study Route: oral (feed) onic Development: NOAEL: 50 mg/kg body No effects on fertility, Embryo-foetal toxicity gnificant toxicity observed in testing
		Species: Rat Application F Early Embry weight	
			t, male Route: Oral \EL: 1 mg/kg body weight Effects on fertility
Effect ment	ts on foetal develop-	Developmen Result: Skele	

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	Revision Date: 2024/09/28	SDS Number: 85708-00030	Date of last issue: 2024/04/06 Date of first issue: 2015/04/01
		Symptoms: No Test Type: De Species: Rabi Application Ro Developmenta	female al Toxicity: NOAEL: 10 mg/kg body weight o effects on foetal development evelopment
Repro sessn	oductive toxicity - As- nent		ce of adverse effects on sexual function and on development, based on animal experimer
	- single exposure	viloblo information	
	assified based on ava	allable information.	
	oonents:		
delta Asses	methrin (ISO):		spiratory irritation.
стот	- repeated exposur	e	
May c			l or repeated exposure.
May c <u>Comp</u>	ause damage to orga		l or repeated exposure.
May o <u>Comp</u> deltai Expos Targe	cause damage to orga	ins through prolonged : Ingestion : Central nervol	l or repeated exposure. us system, Immune system ge to organs through prolonged or repeated
May o Comp deltai Expos Targe Asses Expos Targe	cause damage to orga <u>conents:</u> methrin (ISO): sure routes to Organs	ins through prolonged : Ingestion : Central nervou : Causes dama exposure. : inhalation (dua : Central nervou	us system, Immune system ge to organs through prolonged or repeated st/mist/fume)
May o Comp deltar Expos Targe Asses Expos Targe Asses	cause damage to orga <u>conents:</u> methrin (ISO): sure routes of Organs ssment sure routes of Organs	 Ingestion Central nervoi Causes dama exposure. inhalation (dual) Central nervoi Central nervoi Causes dama 	us system, Immune system ge to organs through prolonged or repeated st/mist/fume) us system
May of Comp deltar Expos Targe Asses Expos Targe Asses	cause damage to orga <u>conents:</u> methrin (ISO): sure routes to Organs ssment sure routes to Organs ssment	 Ingestion Central nervoi Causes dama exposure. inhalation (dual) Central nervoi Central nervoi Causes dama 	us system, Immune system ge to organs through prolonged or repeated st/mist/fume) us system
May of Comp deltar Expos Targe Asses Expos Targe Asses Reper	cause damage to orga <u>conents:</u> methrin (ISO): sure routes to Organs ssment sure routes to Organs ssment ated dose toxicity	 Ingestion Central nervoi Causes dama exposure. inhalation (dual) Central nervoi Central nervoi Causes dama 	us system, Immune system ge to organs through prolonged or repeated st/mist/fume) us system
May of Comp deltai Expos Targe Asses Expos Targe Asses Repe Comp Triph Speci NOAE Applic	cause damage to orga <u>conents:</u> methrin (ISO): sure routes at Organs ssment sure routes ated dose toxicity <u>conents:</u> enyl phosphate: es EL cation Route sure time	 Ingestion Central nervoi Causes dama exposure. inhalation (dual) Central nervoi Central nervoi Causes dama 	us system, Immune system ge to organs through prolonged or repeated st/mist/fume) us system ge to organs through prolonged or repeated

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Speci		: Rat, male and	female
NOAE		: 1 mg/kg	
LOAE	L cation Route	: 2.5 mg/kg : Oral	
	sure time	: 13 Weeks	
	t Organs	: Nervous syster	n
Symp		: hyperexcitabilit	
Speci		: Rat	
LOAE		: 3 mg/m3	t/miat/fuma)
	ation Route	: inhalation (dus : 2 wk / 5 d/wk /	
Symp			respiratory tract irritation
Speci		: Dog	
NOAE		: 0.1 mg/kg	
LOAE		: 1 mg/kg : Oral	
	ation Route	: 13 Weeks	
	t Organs	: Nervous syster	n
Symp			e pupil, Vomiting, Tremors, Diarrhoea, Saliva-
Speci	es	: Rat	
NOAE		: 14 mg/kg	
LOAE		: 54 mg/kg	
	cation Route sure time	: Oral : 91 d	
	t Organs	: Nervous system	m
Speci		: Mouse	
LOAE		: 6 mg/kg	
Applic	ation Route	: Oral	
	sure time t Organs	: 12 Weeks : Immune syster	n
Symp		: immune system	
Titani	um dioxide:		
Speci	es	: Rat	
NOAE	EL	: 24,000 mg/kg	
	ation Route	: Ingestion	
Expos	sure time	: 28 Days	
Speci	es	: Rat	
NOAE		: 10 mg/m3	
	ation Route	: inhalation (dus	t/mist/tume)
∎⊏xpos		: 2 yr	

Aspiration toxicity

Not classified based on available information.

according to GB/T 16483 and GB/T 17519



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Expe	rience with human exp	osi	Ire		
Produ	uct:				
Skin o	Skin contact :		Remarks: Can be absorbed through skin. Based on Animal Evidence May irritate skin. Remarks: May be harmful if swallowed.		
Inges	Ingestion :				
<u>Comp</u>	oonents:				
delta	methrin (ISO):				
Inhala		:	Headache, Nause	atory tract irritation, Dizziness, Sweating, ea, Vomiting, anorexia, Fatigue, tingling, ed vision, muscle twitching	
Skin o	contact	:	Symptoms: Skin i sea, Vomiting, Diz	rritation, Erythema, pruritis, Headache, Nau- zziness, tingling, Sweating, muscle twitching, tigue, anorexia, Allergic reactions	
Inges	tion	:		le pain, Small pupils	
12. ECOL	OGICAL INFORMATIO	N			
		-			
Ecoto	oxicity				
Produ	<u>uct:</u>				
Toxici	ty to fish	:	LC50 (Pimephale Exposure time: 96 Method: OECD T		
	ty to daphnia and other ic invertebrates				
	oxicology Assessment nic aquatic toxicity	:	Harmful to aquation	c life with long lasting effects.	
Comr	oonents:				
-					
	enyl phosphate: ity to fish	:	LC50 (Oncorhync Exposure time: 96	hus mykiss (rainbow trout)): 0.4 mg/l እ h	
	ty to daphnia and other ic invertebrates	:	EC50 (Mysidopsis mg/l Exposure time: 96	s bahia (opossum shrimp)): > 0.18 - 0.32 S h	
Toxici plants	ty to algae/aquatic	:	ErC50 (Raphidoc 3.73 mg/l Exposure time: 72 Method: OECD To		

according to GB/T 16483 and GB/T 17519

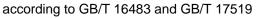


ersion .0	Revision Date: 2024/09/28	-	9S Number: 708-00030	Date of last issue: 2024/04/06 Date of first issue: 2015/04/01
			NOEC (Raphidoc 0.25 mg/l Exposure time: 72 Method: OECD To	
	ctor (Acute aquatic tox-	:	1	
icity) Toxici icity)	ty to fish (Chronic tox-	:	EC10 (Danio rerio Exposure time: 73 Method: OECD To	
	ity to daphnia and other ic invertebrates (Chron- city)	:	NOEC (Daphnia r Exposure time: 21 Method: OECD Te	
M-Fac toxicit	ctor (Chronic aquatic y)	:	1	
delta	methrin (ISO):			
Toxici	ty to fish	:	LC50 (Cyprinodor mg/l Exposure time: 96	n variegatus (sheepshead minnow)): 0.0004 Sh
			LC50 (Oncorhync Exposure time: 96	hus mykiss (rainbow trout)): 0.00039 mg/l 5 h
	ty to daphnia and other ic invertebrates	:	EC50 (Mysidopsis Exposure time: 48	s bahia (opossum shrimp)): 0.0037 μg/l 3 h
			EC50 (Daphnia m Exposure time: 48	nagna (Water flea)): 0.0035 mg/l 3 h
			LC50 (Gammarus Exposure time: 96	s fasciatus (freshwater shrimp)): 0.0003 μg/ δ h
Toxici plants	ty to algae/aquatic	:	mg/l Exposure time: 72 Method: OECD To	
M-Fac icity)	ctor (Acute aquatic tox-	:	1,000,000	
	ty to fish (Chronic tox-	:	NOEC (Pimephale mg/l Exposure time: 36	es promelas (fathead minnow)): 0.000022 6 d
			NOEC (Pimephale mg/l Exposure time: 26	es promelas (fathead minnow)): 0.000017
Toxici	ty to daphnia and other	:	NOEC (Daphnia r	nagna (Water flea)): 0.0041 μg/l

according to GB/T 16483 and GB/T 17519



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ic tox	tic invertebrates (Chron- icity) ctor (Chronic aquatic		Exposure time:	21 d
toxici		:	1,000,000	
Titan	ium dioxide:			
Toxic	ity to fish	:	Exposure time:	nchus mykiss (rainbow trout)): > 100 mg/l 96 h Test Guideline 203
Toxic aquat	ity to daphnia and other tic invertebrates	:	EC50 (Daphnia Exposure time:	magna (Water flea)): > 100 mg/l 48 h
Toxic plants	ity to algae/aquatic s	:	EC50 (Skeleton Exposure time:	ema costatum (marine diatom)): > 10,000 mg/l 72 h
Toxic	ity to microorganisms	:	EC50: > 1,000 r Exposure time: Method: OECD	
Persi	stence and degradabil	ity		
Com	ponents:			
Triph	enyl phosphate:			
Biode	egradability	:	Result: Readily Biodegradation: Exposure time:	83 - 94 %
delta	methrin (ISO):			
	lity in water	:	Hydrolysis: 0 %	(30 d)
Bioa	ccumulative potential			
Com	ponents:			
Triph	enyl phosphate:			
Bioac	cumulation	:		s latipes (Orange-red killifish) n factor (BCF): 144
	ion coefficient: n- ol/water	:	log Pow: 4.63	
	methrin (ISO):			
Bioac	cumulation	:		is macrochirus (Bluegill sunfish) n factor (BCF): 1,800
	ion coefficient: n- ol/water	:	log Pow: 4.6	





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Mobility in soil

Components:

deltamethrin (ISO):

Distribution among environ- : log Koc: 7.2 mental compartments

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number Proper shipping name Class Subsidiary risk Packing group Labels Environmentally hazardous		Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable no
IATA-DGR UN/ID No. Proper shipping name Class Subsidiary risk Packing group Labels Packing instruction (cargo aircraft) Packing instruction (passen- ger aircraft)		Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable
IMDG-Code UN number Proper shipping name Class Subsidiary risk Packing group Labels	:	Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable

according to GB/T 16483 and GB/T 17519

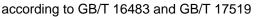


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EmS Marin	Code le pollutant	: Not applicable : no	
	sport in bulk accord	-	RPOL 73/78 and the IBC Code
Natio	nal Regulations		
UN n Prope Class Subsi Packi Label	idiary risk ng group	 Not applicable no 	
Snec	ial procestions for s	iser	
-	ial precautions for upplicable		
Not a	pplicable		
Not a 5. REGU	pplicable	TION	
Not a 5. REGU Natio	pplicable LATORY INFORMA nal regulatory infor	TION	tional Diseases
Not a 5. REGU Natio Law o	pplicable LATORY INFORMA onal regulatory infor on the Prevention a	TION mation nd Control of Occupa	
Not a 5. REGU Natio Law o Regu	pplicable LATORY INFORMA onal regulatory infor on the Prevention a	TION mation nd Control of Occupa anagement of Hazard	
Not a . REGU Natio Law o Regu Catal	pplicable LATORY INFORMA onal regulatory infor on the Prevention a lations on Safety M ogue of Hazardous C	TION mation nd Control of Occupa anagement of Hazard Chemicals	ous Chemicals : This product is not listed in the car logue of hazardous chemicals, bu meets the definition of hazardous chemicals and its principles of de-
Not a Natio Law o Regu Catal Identi 18218	pplicable LATORY INFORMA onal regulatory infor on the Prevention a lations on Safety M ogue of Hazardous C fication of Major Haz 8) rdous Chemicals for	TION mation nd Control of Occupa anagement of Hazard Chemicals	Ious Chemicals This product is not listed in the car logue of hazardous chemicals, bu meets the definition of hazardous chemicals and its principles of de- termination. zardous Chemicals (GB : Not listed
Not a Natio Law o Regu Catal Identi 18218 Haza SAWS	pplicable LATORY INFORMA onal regulatory infor on the Prevention a lations on Safety M ogue of Hazardous C fication of Major Haz 8) rdous Chemicals for S	TION mation nd Control of Occupa anagement of Hazard Chemicals ard Installations for Ha	 Hous Chemicals This product is not listed in the callogue of hazardous chemicals, bu meets the definition of hazardous chemicals and its principles of determination. zardous Chemicals (GB : Not listed nder : Not listed
Not a Natio Law o Regu Catal Identi 18218 Haza SAW3 Regu	pplicable LATORY INFORMA onal regulatory infor on the Prevention a lations on Safety M ogue of Hazardous C fication of Major Haz 8) rdous Chemicals for S	TION mation nd Control of Occupa anagement of Hazard Chemicals ard Installations for Ha Priority Management u	Ious Chemicals This product is not listed in the car logue of hazardous chemicals, bu meets the definition of hazardous chemicals and its principles of de- termination. zardous Chemicals (GB : Not listed
Not a Natio Law o Regu Catal Identi 18218 Haza SAW Regu Catal Regu	pplicable LATORY INFORMA onal regulatory infor on the Prevention a lations on Safety M ogue of Hazardous C fication of Major Haz a) rdous Chemicals for S lations on Labour F ogue of Highly Toxic	TION mation nd Control of Occupa anagement of Hazard Chemicals ard Installations for Ha Priority Management u Protection in Workplac Chemicals	 This product is not listed in the car logue of hazardous chemicals, bu meets the definition of hazardous chemicals and its principles of determination. zardous Chemicals (GB : Not listed nder : Not listed ces where Toxic Substances are Used

Regulation on the Administration of Precursor Chemicals

Catalogue and Classification of Precursor Chemicals : Not listed





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Yangtze River Protection Law

This product does not contain any dangerous chemicals prohibited for inland river transport.

The components of this product are reported in the following inventories:

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

16. OTHER INFORMATION

Revision Date	:	2024/09/28
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 Agen- cy, http://echa.europa.eu/

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

Date format	:	yyyy/mm/dd		
Full text of other abbreviations				
ACGIH CN OEL	:	USA. ACGIH Threshold Limit Values (TLV) Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.		
ACGIH / TWA CN OEL / PC-TWA		8-hour, time-weighted average Permissible concentration - time weighted average		

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



according to GB/T 16483 and GB/T 17519

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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

Disclaimer

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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