



10.0 2023/09/30 633947-00021 Date of first issue: 2016/04/27	Version Revision Date:	SDS Number:	Date of last issue: 2023/04/04
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1. PRODUCT AND COMPANY IDENTIFICATION

Chemical product name	:	Enrofloxacin (10%) Formulation
Supplier's company name, ad Company name of supplier		
Address	:	Kumagaya, Saitama Prefecture , Xicheng 810 MSD Co., Ltd. Menuma factory
Telephone	:	048-588-8411
E-mail address	:	EHSDATASTEWARD@msd.com
Emergency telephone number	:	+1-908-423-6000

Recommended use of the chemical and restrictions on use

Recommended use	:	Veterinary product
Restrictions on use	:	Not applicable

2. HAZARDS IDENTIFICATION

GHS classification of chemic Reproductive toxicity	cal :	product Category 2
Specific target organ toxicity - repeated exposure	:	Category 1 (cartilage, Testis)
Short-term (acute) aquatic hazard	:	Category 1
Long-term (chronic) aquatic hazard	:	Category 1
GHS label elements		
Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	H361f Suspected of damaging fertility. H372 Causes damage to organs (cartilage, Testis) through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects.





Vision Tension Parts. Obs of values in task issue: 2016/04/27 10.0 2023/09/30 633947-00021 Date of first issue: 2016/04/27 Precautionary statements : Prevention: P201 Ob not handle until all safety precautions have been read and understood. P202 Do not breathe mist or vapours. P260 Do not breathe mist or vapours. P260 Do not breather handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P308 + P313 Fexposed or concerned: Get medical advice/ attention. P391 Collect spillage. Storage: P405 P405 Store locked up. Disposal: P501 P501 Dispose of contents/ container to an approved waste disposal plant. Other hazards which do not result in classification None known. None known. 3. COMPOSITION/INFORMATION ON INGREDIENTS Substance / Mixture Substance / Mixture Mixture Chemical name CAS-No. Concentration (% w/w) Enrofloxacin 93106-60-6 >= 10 - < 20 <th>Version</th> <th>Revision Date:</th> <th>SDS Number:</th> <th>Date of last issue: 2023/04/</th> <th>04</th>	Version	Revision Date:	SDS Number:	Date of last issue: 2023/04/	04
Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe mist or vapours. P260 Do not breathe mist or vapours. P260 Ed Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P308 + P313 IF exposed or concerned: Get medical advice/ attention. P391 Collect spillage. Storage: P405 Store locked up. P501 Disposal: P501 Dispose of contents/ container to an approved waste disposal plant. Other hazards which do not result in classification None known. None known. 3. COMPOSITION/INFORMATION ON INGREDIENTS Substance / Mixture Chemical name CAS-No. Concentration (% w/w) Enrofloxacin 93106-60-6 >= 10 - < 20					
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P501 Dispose of contents/ container to an approved waste disposal plant. Other hazards which do not result in classification None known. 3. COMPOSITION/INFORMATION ON INGREDIENTS Substance / Mixture : Mixture Components Chemical name CAS-No. Concentration (% w/w) ENCS No. Enrofloxacin 93106-60-6			-	ed up.	
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3. COMPOSITION/INFORMATION ON INGREDIENTS Substance / Mixture Components Chemical name CAS-No. Enrofloxacin 93106-60-6	Othe	r hazards which do n	ot result in classificat	ion	
Substance / Mixture : Mixture Components Chemical name CAS-No. Concentration (% w/w) ENCS No. Enrofloxacin 93106-60-6 >= 10 - < 20	None	known.			
ComponentsChemical nameCAS-No.Concentration (% w/w)ENCS No.Enrofloxacin93106-60-6>= 10 - < 20	3. COMPO	DSITION/INFORMATIO	ON ON INGREDIENTS		
Chemical nameCAS-No.Concentration (% w/w)ENCS No.Enrofloxacin93106-60-6>= 10 - < 20	Subs	tance / Mixture	: Mixture		
Enrofloxacin 93106-60-6 >= 10 - < 20	Com	ponents			
Enrofloxacin 93106-60-6 >= 10 - < 20	Chem	nical name	CAS-No.	Concentration (% w/w)	ENCS No.
Benzyl alcohol 100-51-6 >= 1 - < 10 3-1011	Enrof	loxacin			
	Benz	yl alcohol	100-51-6	>= 1 - < 10	3-1011

4. FIRST AID MEASURES

General 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.
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.



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		of eye contact	:	Get medical atten	ater as a precaution. tion if irritation develops and persists.
	If swallowed		:	Get medical atten	NOT induce vomiting. tion. oughly with water.
	Most important symptoms and effects, both acute and delayed		:	Suspected of dam Causes damage t exposure.	naging fertility. o organs through prolonged or repeated
		on of first-aiders	•	and use the recor when the potentia	ers should pay attention to self-protection, nmended personal protective equipment I for exposure exists (see section 8).
		o physician	:	I reat symptomati	cally and supportively.
		ITING MEASURES			
	Suitable	e extinguishing media	•	Water spray Alcohol-resistant Carbon dioxide (C Dry chemical	
	Unsuita media	ble extinguishing	:	None known.	
		hazards during fire-	:	Exposure to comb	oustion products may be a hazard to health.
		ous combustion prod-	:	Carbon oxides	
	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 for firefi	protective equipment ghters	:	In the event of fire	e, wear self-contained breathing apparatus. rective equipment.
6. AC	CCIDEN	ITAL RELEASE MEAS	SUF	RES	
	tive equ	al precautions, protec- lipment and emer- procedures	:	Follow safe handl	ective equipment. ing advice (see section 7) and personal pro- recommendations (see section 8).
	Environ	mental precautions	:	Prevent spreading barriers). Retain and dispos	akage or spillage if safe to do so. g over a wide area (e.g. by containment or oil se of contaminated wash water. should be advised if significant spillages
		s and materials for ment and cleaning up	:	For large spills, priment to keep mat	t absorbent material. rovide dyking or other appropriate contain- erial from spreading. If dyked material can recovered material in appropriate container.



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			bent. Local or national posal of this mate employed in the of mine which regul Sections 13 and	ng materials from spill with suitable absor- regulations may apply to releases and dis- erial, as well as those materials and items cleanup of releases. You will need to deter- ations are applicable. 15 of this SDS provide information regarding ational requirements.
7. HANDI	LING AND STORAGE			
Hand	dling			
Loca Advid	nical measures I/Total ventilation ce on safe handling dance of contact ene measures		CONTROLS/PEF Use only with add Do not breathe m Do not swallow. Avoid contact wit Avoid prolonged Wash skin thorou Handle in accord practice, based of sessment Do not eat, drink Take care to prevent environment. Oxidizing agents If exposure to che flushing systems place. When using do n Wash contamina The effective ope engineering contra	
	age ditions for safe storage erials to avoid	:	Store locked up. Store in accordar	labelled containers. nce with the particular national regulations. the following product types:
Pack	aging material	:	Unsuitable mater	ial: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Threshold limit value and permissible exposure limits for each component in the work environment



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Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Reference concentration / Permissible con- centration	Basis
Enrofloxacin	93106-60-6	TWA	0.2 mg/m3 (OEB 2)	Internal
Benzyl alcohol	100-51-6	OEL-C	25 mg/m3	JP OEL JSOH
			sitizing agent; Group 2 c reactions in humans	
Engineering measures	technologies less quick co	to control airbor nnections).	controls and manufactors (e.	g., drip-

All engineering controls should be implemented by facility
design and operated in accordance with GMP principles to
protect products, workers, and the environment.
Laboratory operations do not require special containment.

Pers	or	nal	protective equipment	
-				

Respiratory protection	:	If adequate local exhaust ventilation is not available or expo- sure assessment demonstrates exposures outside the rec- ommended guidelines, use respiratory protection. Combined particulates and organic vapour type
Hand protection		
Material	:	Chemical-resistant gloves
Eye 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Colour	:	No data available
Odour	:	No data available
Odour Threshold	:	No data available
Melting point/freezing point	:	No data available
Boiling point, initial boiling point and boiling range	:	No data available
Flammability (solid, gas)	:	Not applicable



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Flam	mability (liquids)	:	No data available	9
Up	r explosion limit and upp oper explosion limit / Up- er flammability limit			
	ower explosion limit / ower flammability limit	:	No data available)
Flash	point	:	No data available	2
Deco	mposition temperature	:	No data available	9
рН		:	No data available	9
Evap	oration rate	:	No data available	9
Auto-	ignition temperature	:	No data available	9
Visco Vi	sity scosity, kinematic	:	No data available	
	ility(ies) ater solubility	:	No data available	9
	ion coefficient: n- ol/water	:	Not applicable	
Vapo	ur pressure	:	No data available	9
	ity and / or relative densi elative density	ity :	No data available	9
De	ensity	:	No data available	9
Relat	ive vapour density	:	No data available	9
Explo	sive properties	:	Not explosive	
Oxidi	zing properties	:	The substance o	r mixture is not classified as oxidizing.
	cle characteristics article size	:	Not applicable	

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.



ersion D.0	Revision Date: 2023/09/30		9S Number: 3947-00021	Date of last issue: 2023/04/04 Date of first issue: 2016/04/27	
Incom	itions to avoid npatible materials rdous decomposition icts	:	None known. Oxidizing agents No hazardous de	ecomposition products are known.	
1. TOXIC	OLOGICAL INFORMAT	101	N		
Inforn expos	nation on likely routes of sure	:	Inhalation Skin contact Ingestion Eye contact		
Acute	e toxicity				
	lassified based on availa	ble	information.		
Prod					
Acute	e oral toxicity	:	Acute toxicity esti Method: Calculati	mate: > 2,000 mg/kg on method	
Acute	inhalation toxicity	:	 Acute toxicity estimate: > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method 		
<u>Com</u>	ponents:				
Enro	floxacin:				
Acute	e oral toxicity	:	LD50 (Rabbit): 50	00 - 800 mg/kg	
			LD50 (Rat): > 5,0	00 mg/kg	
			LD50 (Mouse): >	5,000 mg/kg	
Acute	e dermal toxicity	:	LD50 (Rabbit): > 2	2,000 mg/kg	
Benz	yl alcohol:				
	e oral toxicity	:	LD50 (Rat): 1,620) mg/kg	
Acute	inhalation toxicity	:	LC50 (Rat): > 4.1 Exposure time: 4 Test atmosphere: Method: OECD T	h	
Skin	corrosion/irritation				
Not c	lassified based on availa	ble	information.		
<u>Com</u>	ponents:				

Enrofloxacin:





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Result	t	:	No skin irritatio	n
	/l alcohol:			
Specie		-	Rabbit	
Metho Result	-		OECD Test Gu No skin irritatio	
Resul	L	·	INO SKIIT ITTIALIO	11
	us eye damage/eye			
	assified based on ava	ailable ir	nformation.	
<u>Comp</u>	onents:			
-	loxacin:		N 411.1	
Result	t	:	Mild eye irritati	n
Benzy	/l alcohol:			
Specie	es	:	Rabbit	
Resul	t	:	Irritation to eve	s, reversing within 21 days
N 4 - 41	1			
-	ratory or skin sensi	:	OECD Test Ğu	
Respi Skin s	-	: tisatior	OECD Test Ġu	
Respi Skin s Not cla Respi	ratory or skin sensi sensitisation assified based on ava ratory sensitisation	: tisatior ailable ir	OECD Test Ġu n	
Respi Skin s Not cla Respi Not cla	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava	: tisatior ailable ir	OECD Test Ġu n	
Respi Skin s Not cla Respi Not cla <u>Comp</u>	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava ponents:	: tisatior ailable ir	OECD Test Ġu n	
Respi Skin s Not cla Respi Not cla <u>Comp</u> Enrof	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava ponents: loxacin:	: ailable ir ailable ir	OECD Test Gu nformation.	ideline 405
Respi Skin s Not cla Respi Not cla <u>Comp</u> Enrof	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava ponents: loxacin:	: ailable ir ailable ir	OECD Test Ġu n	ideline 405
Respi Skin s Not cla Respi Not cla <u>Comp</u> Enrof	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava conents: loxacin: Type sure routes	: ailable ir ailable ir ailable ir	OECD Test Gu nformation. nformation. Maximisation T Dermal Guinea pig	ideline 405
Respi Skin s Not cla Respi Not cla <u>Comp</u> Enrof Test T Expos	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava onents: loxacin: Type sure routes es	: ailable ir ailable ir ailable ir	OECD Test Gu nformation. nformation. Maximisation T Dermal	ideline 405
Respi Skin s Not cla Respi Not cla <u>Comp</u> Enrof Test T Expos Specie Result	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava onents: loxacin: Type sure routes es	: ailable ir ailable ir ailable ir	OECD Test Gu nformation. nformation. Maximisation T Dermal Guinea pig	ideline 405
Respi Skin s Not cla Respi Not cla <u>Comp</u> Enrof Test T Expos Specie Result	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava conents: loxacin: Type sure routes es	: ailable in ailable in	OECD Test Gu nformation. nformation. Maximisation T Dermal Guinea pig	est sitizer.
Respi Skin s Not cla Respi Not cla Comp Enrof Test T Expos Specia Result Benzy Test T Expos	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava conents: loxacin: Type sure routes es t	: ailable in ailable in	OECD Test Gu n nformation. nformation. Maximisation T Guinea pig Not a skin sens Maximisation T Skin contact	est sitizer.
Respi Skin s Not cla Respi Not cla Comp Enrof Test T Expos Specia Result Benzy Test T Expos Specia	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava conents: loxacin: Type sure routes es t yl alcohol: Type sure routes es	: ailable in ailable in	OECD Test Gu n nformation. nformation. Maximisation T Guinea pig Not a skin sens Maximisation T Skin contact Guinea pig	est sitizer.
Respi Skin s Not cla Respi Not cla Comp Enrof Test T Expos Specia Result Benzy Test T Expos Specia Metho	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava conents: loxacin: Type sure routes es t rul alcohol: Type sure routes es	itisation ailable in ailable in	OECD Test Gu nformation. nformation. Maximisation T Guinea pig Not a skin sens Maximisation T Skin contact Guinea pig OECD Test Gu	est sitizer.
Respi Skin s Not cla Respi Not cla Comp Enrof Test T Expos Specia Result Benzy Test T Expos Specia	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava conents: loxacin: Type sure routes es t rul alcohol: Type sure routes es	itisation ailable in ailable in	OECD Test Gu n nformation. nformation. Maximisation T Guinea pig Not a skin sens Maximisation T Skin contact Guinea pig	est sitizer.
Respi Skin s Not cla Respi Not cla Comp Enrof Test T Expos Specia Result Benzy Test T Expos Specia Metho Result	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava conents: loxacin: Type sure routes es t v/ alcohol: Type sure routes es t cell mutagenicity	itisation ailable in ailable in	OECD Test Gu nformation. nformation. Maximisation T Dermal Guinea pig Not a skin sens Maximisation T Skin contact Guinea pig OECD Test Gu negative	est sitizer.
Respi Skin s Not cla Respi Not cla Comp Enrof Test T Expos Specia Result Benzy Test T Expos Specia Result Metho Result	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava conents: loxacin: Type sure routes es t v/ alcohol: Type sure routes es t cell mutagenicity assified based on ava	itisation ailable in ailable in	OECD Test Gu nformation. nformation. Maximisation T Dermal Guinea pig Not a skin sens Maximisation T Skin contact Guinea pig OECD Test Gu negative	est sitizer.
Respi Skin s Not cla Respi Not cla Comp Enrof Test T Expos Specie Result Benzy Test T Expos Specie Result Germ Not cla Comp	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava conents: loxacin: Type sure routes es t rul alcohol: Type sure routes es t cell mutagenicity assified based on ava conents:	itisation ailable in ailable in	OECD Test Gu nformation. nformation. Maximisation T Dermal Guinea pig Not a skin sens Maximisation T Skin contact Guinea pig OECD Test Gu negative	est sitizer.
Respi Skin s Not cla Respi Not cla Comp Enrof Test T Expos Specia Result Benzy Test T Expos Specia Result Germ Not cla Comp Enrof	ratory or skin sensi sensitisation assified based on ava ratory sensitisation assified based on ava conents: loxacin: Type sure routes es t v/ alcohol: Type sure routes es t cell mutagenicity assified based on ava	itisation ailable in ailable in	OECD Test Gu nformation. nformation. Maximisation T Dermal Guinea pig Not a skin sens Maximisation T Skin contact Guinea pig OECD Test Gu negative	est sitizer.



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II		Result: positiv	e
Geno	otoxicity in vivo	: Test Type: Mi	cronucleus test
		Species: Mous	Se
		Result: negati	ve
		Test Type: Ma	mmalian bone marrow sister chromatid ex-
		change	
		Species: Ham	
		Result: negati	ve
		Test Type: Ch	romosomal aberration
		Species: Rat	
		Result: negati	ve
II Benz	yl alcohol:		
	otoxicity in vitro	: Test Type: Ba	cterial reverse mutation assay (AMES)
		Result: negativ	
Conc	otoxicity in vivo	· Toot Type: Ma	mmalian anthroasta miaranualaua taat (in siju
Gend		cytogenetic as	Immalian erythrocyte micronucleus test (in viv
		Species: Mous	
			oute: Intraperitoneal injection
		Result: negati	ve
II			
	inogenicity	-ilable information	
	lassified based on av	allable information.	
	ponents:		
	floxacin:		
Spec		: Rat	
Appli	cation Route sure time	: Oral : 2 Years	
⊏xpo Resu		: negative	
		-	
Spec		: Mouse	
Appli	cation Route	: Oral	
	sure time	: 2 Years	
Expo	IIT	: negative	
Expo Resu			
Expo Resu	yl alcohol:		
Expo Resu		: Mouse	
Expo Resu Benz Spec Appli	ies cation Route	: Mouse : Ingestion	
Expo Resu Benz Spec Appli Expo	ies cation Route sure time	: Ingestion : 103 weeks	
Expo Resu Benz Spec Appli	ies cation Route sure time od	: Ingestion	uideline 451

Suspected of damaging fertility.



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<u>Comp</u>	oonents:		
Enrof	loxacin:		
Effects	s on fertility	Species: Ra Application Fertility: LC	Two-generation study at Route: Oral DAEL: 15 mg/kg body weight ects on fertility, alteration in sperm morpholo
Effects ment	s on foetal develop-	Species: R Application Developme Result: Rec	Development at Route: Oral ental Toxicity: LOAEL: 210 mg/kg body weig duced foetal weight, No teratogenic effects Maternal toxicity observed.
		Species: Ra Application Developme	Development abbit Route: Oral ental Toxicity: NOAEL: 25 mg/kg body weigh fetotoxicity, No teratogenic effects
Repro sessm	ductive toxicity - As- nent		ence of adverse effects on sexual function a ed on animal experiments.
Benz	/l alcohol:		
	s on fertility	Species: Ra Application Result: neg	Route: Ingestion
Effect: ment	s on foetal develop-	Species: M	Route: Ingestion

Not classified based on available information.

STOT - repeated exposure

Causes damage to organs (cartilage, Testis) through prolonged or repeated exposure.

Components:

Enrofloxacin:

Target Organs	:	cartilage, Testis
Assessment	:	Causes damage to organs through prolonged or repeated
11		exposure.





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Repe	ated dose toxicity		
Com	ponents:		
Enro	floxacin:		
Spec	ies	: Rat	
NOA		: 36 mg/kg	
LOAE		: 150 mg/kg	
	cation Route sure time	: Oral : 13 Weeks	
	et Organs	: Testis	
Spec		: Dog	
NOA LOAE		: 3 mg/kg : 9.6 mg/kg	
	∠∟ cation Route	: 9.6 mg/kg : Oral	
	sure time	: 13 Weeks	
Targe	et Organs	: cartilage	
Spec	ies	: Cat	
NOA		: 25 mg/kg	
	cation Route	: Oral	
Rema	sure time arks	: 30 Days	ant adverse effects were reported
N CINC		. No signino	
	yl alcohol:	_	
Spec		: Rat	
NOA	⊏∟ cation Route	: 1.072 mg/l	(dust/mist/fume)
	sure time	: 28 Days	
Meth			t Guideline 412
Aspi	ration toxicity		
Not c	lassified based on av	ailable information.	
Expe	rience with human e	exposure	
Com	ponents:		
Enro	floxacin:		
Inges	stion	: Symptoms	: Gastrointestinal disturbance, central nervous sys-
Ū			s, Sensitivity to light
12. ECOL	OGICAL INFORMAT	ION	
Ecote	oxicity		
	ponents:		
Enro	floxacin:		
	tity to fish		omis macrochirus (Bluegill supfish)): 70.5 mg/l
TOXIC	ary 10 11511	. соро (сер	omis macrochirus (Bluegill sunfish)): 79.5 mg/l





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			Exposure time:	96 h
			LC50 (Oncorhy Exposure time:	nchus mykiss (rainbow trout)): > 196 mg/l 96 h
			LC50 (Oryzias I Exposure time:	atipes (Japanese medaka)): > 100 mg/l 96 h
	ty to daphnia and other c invertebrates	:	EC50 (Hyalella Exposure time:	azteca (Amphipod)): > 206 mg/l 96 h
			EC50 (Daphnia Exposure time:	magna (Water flea)): 79.9 mg/l 48 h
Toxicit plants	ty to algae/aquatic	:	EC50 (Pseudok mg/l Exposure time:	irchneriella subcapitata (green algae)): 3.1 72 h
			EC50 (Microcys Exposure time:	atis aeruginosa (blue-green algae)): 0.049 n 5 d
	tor (Acute aquatic tox-	:	10	
	ty to daphnia and other c invertebrates (Chron-	:	NOEC (Daphnia Exposure time:	a magna (Water flea)): 9.8 mg/l 21 d
	sity)		NOEC (Daphnia Exposure time:	a magna (Water flea)): 5 mg/l 21 d
			LOEC (Daphnia Exposure time:	n magna (Water flea)): 15 mg/l 21 d
M-Fac toxicity	tor (Chronic aquatic y)	:	10	
Benzy	/l alcohol:			
Toxici	ty to fish	:	LC50 (Pimepha Exposure time:	les promelas (fathead minnow)): 460 mg/l 96 h
	ty to daphnia and other c invertebrates	:	Exposure time:	magna (Water flea)): 230 mg/l 48 h Test Guideline 202
Toxicit plants	ty to algae/aquatic	:	mg/l Exposure time:	irchneriella subcapitata (green algae)): 770 72 h Test Guideline 201
			mg/l Exposure time:	kirchneriella subcapitata (green algae)): 31 72 h Test Guideline 201





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aqua ic tox	city to daphnia and other tic invertebrates (Chron- cicity) istence and degradabil		Exposure time: 2	magna (Water flea)): 51 mg/l 1 d ⁻ est Guideline 211
<u>Com</u>	ponents:			
	ryl alcohol: egradability	:	Result: Readily b Biodegradation: Exposure time: 1	92 - 96 %
Bioa	ccumulative potential			
Com	ponents:			
Partit	floxacin: tion coefficient: n- nol/water	:	log Pow: 0.5	
Partit	ryl alcohol: tion coefficient: n- nol/water	:	log Pow: 1.05	
	ility in soil			
<u>Com</u>	ponents:			
Distri	floxacin: bution among environ- al compartments	:	Koc: 5.55	
	rdous to the ozone lay applicable	er		
	r adverse effects ata available			
13. DISPO	DSAL CONSIDERATION	IS		
Dien	osal methods			
-	e from residues	:		cordance with local regulations.

	•	Dispose of in decordance with local regulations.
		Do not dispose of waste into sewer.
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





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	TDG number		UN 3082	
	er shipping name	:	ENVIRONMENT/ N.O.S.	ALLY HAZARDOUS SUBSTANCE, LIQUID,
Clas	8		() 9	
	ing group	:	Ĩ	
Labe		:	9	
Envi	ronmentally hazardous	:	yes	
	A-DGR			
	D No.	÷	UN 3082	energia a substance liquid a co
Рюр	er shipping name	•	()	nazardous substance, liquid, n.o.s.
Clas	S	:	9	
	ing group	:	III	
Labe		:	Miscellaneous	
Pack	ing instruction (cargo		964	
Pack	ing instruction (passen-	:	964	
	ronmentally hazardous	:	yes	
IMD	G-Code		-	
	number	:	UN 3082	
Prop	er shipping name	:	ENVIRONMENT/ N.O.S.	ALLY HAZARDOUS SUBSTANCE, LIQUID,
			()	
Clas		:	9	
	ing group	:		
Labe	ls Code	÷	9	
	ne pollutant	:	F-A, S-F yes	
man	Politica in	•	,	

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

Refer to section 15 for specific national regulation.

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.

ERG Code : 171



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15. REGULATORY INFORMATION

Related Regulations

Fire Service Law

Not applicable to dangerous materials / designated flammables.

Chemical Substance Control Law

Not applicable for Specified Chemical Substance, Monitoring Chemical Substance and Priority Assessment Chemical Substance.

Industrial Safety and Health Law

Harmful Substances Prohibited from Manufacture

Not applicable

Harmful Substances Required Permission for Manufacture

Not applicable

Substances Prevented From Impairment of Health

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity

Not applicable

Substances Subject to be Notified Names

Article 57-2 (Enforcement Order Table 9)

Chemical name	Concentration (%)	Remarks
Benzyl alcohol	>=1 - <10	-

Substances Subject to be Indicated Names

Article 57 (Enforcement Order Article 18)

Chemical name	Remarks
benzyl alcohol	-

Ordinance on Prevention of Hazards Due to Specified Chemical Substances Not applicable

Ordinance on Prevention of Lead Poisoning

Not applicable

Ordinance on Prevention of Tetraalkyl Lead Poisoning

Not applicable

Ordinance on Prevention of Organic Solvent Poisoning

Not applicable





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Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances)

Not applicable

Poisonous and Deleterious Substances Control Law Not applicable

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Not applicable

High Pressure Gas Safety Act

Not applicable

Explosive Control Law

Not applicable

Vessel Safety Law

Miscellaneous dangerous substances and articles (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)

Aviation Law

Miscellaneous dangerous substances and articles (Article 194 of The Enforcement Rules of Aviation Law and its Attached Table 1)

Marine Pollution and Sea Disaster Prevention etc Law

Bulk transportation :	:	Noxious liquid substance(Category Z)
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Pack transportation : Classified as marine pollutant

Narcotics and Psychotropics Control Act

Narcotic or Psychotropic Raw Material (Export / Import Permission) Not applicable Specific Narcotic or Psychotropic Raw Material (Export / Import permission) Not applicable

Waste Disposal and Public Cleansing Law

Industrial waste

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

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

16. OTHER INFORMATION

Further information

Sources of key data used to : Internal technical data, data from raw material SDSs, OECD



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com	oile the Safety Data	eChem Portal	search results and European Chemicals Agen-

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

cy, http://echa.europa.eu/

Date format

Sheet

: yyyy/mm/dd

Full text of other abbreviations

JP OEL JSOH : Japan. The Japan Society for Occupational Health. Recommendation of Occupational Exposure Limits

JP OEL JSOH / OEL-C : Occupational Exposure Limit-Ceiling

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

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





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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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