



Vers 1.14		Revision Date: 28.09.2024	-	S Number: 31715-00015	Date of last issue: 06.04.2024 Date of first issue: 05.06.2017
Sect	tion 1: I	dentification			
	Produc	ct identifier	:	Moxifloxacin Liqu	uid Formulation
	Recom	mended use of the c	hem	ical and restriction	ons on use
		mended use tions on use	:	Pharmaceutical Not applicable	
		acturer or supplier's o			
	Compa	ny	:	MSD	
	Addres	S	:	50 Tuas West Dr Singapore - Sing	
	Teleph	one	:	+1-908-740-4000)
	Emerge	ency telephone numbe	r :	65 6697 2111 (24	4/7/365)
	E-mail	address	:	EHSDATASTEW	/ARD@msd.com

Section 2: Hazard identification

Classification of the substance or mixture

Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

Other hazards which do not result in classification

None known.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Moxifloxacin HCL	186826-86-8	>= 0.1 -<= 0.2

Section 4: First-aid measures

Description of necessary first-aid measures

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.



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		When symp advice.	toms persist or in all cases of doubt seek medica
lf inha	aled		emove to fresh air.
In cas	se of skin contact	: In case of co of water. Remove cor Get medical Wash clothin	ontact, immediately flush skin with soap and plen ntaminated clothing and shoes.
	se of eye contact	Get medical	with water as a precaution. attention if irritation develops and persists.
lf swa	allowed	Get medical	l, DO NOT induce vomiting. attention. h thoroughly with water.
Most	important symptoms a		0,
Risks Prote	ction of first-aiders	and use the	n. ponders should pay attention to self-protection, recommended personal protective equipment itential for exposure exists (see section 8).
Indica	ation of any immediate	medical attenti	on and special treatment needed
Treat	ment : Fire-fighting measure		omatically and supportively.
ction 5			stant foam ide (CO2)
ction 5 Exting Suital	Fire-fighting measure guishing media ble extinguishing media	: Water spray Alcohol-resi Carbon diox	stant foam ide (CO2)
ction 5 Exting Suital Unsui media	Fire-fighting measure guishing media ble extinguishing media	: Water spray Alcohol-resi Carbon diox Dry chemica : None knowr	stant foam ide (CO2) al
ction 5 Exting Suital Unsui media	Fire-fighting measure guishing media ble extinguishing media itable extinguishing a ial hazards arising fror fic hazards during fire-	: Water spray Alcohol-resi Carbon diox Dry chemica : None knowr	stant foam ide (CO2) al n. or mixture
ction 5 Exting Suital Unsui media Spec fightir	Fire-fighting measure guishing media ble extinguishing media itable extinguishing a ial hazards arising fror fic hazards during fire-	 Water spray Alcohol-resi Carbon diox Dry chemica None knowr none knowr n the substance Exposure to 	stant foam ide (CO2) al n. or mixture
ction 5 Exting Suital Unsui media Speci fightir Hazal ucts	Fire-fighting measure guishing media ble extinguishing media itable extinguishing a ial hazards arising fror fic hazards during fire-	 Water spray Alcohol-resi Carbon diox Dry chemica None knowr none knowr the substance Exposure to No hazardor 	stant foam ide (CO2) al n. or mixture combustion products may be a hazard to health
ction 5 Exting Suital Unsui media Speci fightir Hazal ucts Speci Speci	Fire-fighting measure guishing media ble extinguishing media itable extinguishing a ial hazards arising fror fic hazards during fire- ig rdous combustion prod-	 Water spray Alcohol-resi Carbon diox Dry chemica None knowr None knowr Exposure to No hazardor No hazardor or fire-fighters In the event 	stant foam ide (CO2) al n. or mixture combustion products may be a hazard to health us combustion products are known
ction 5 Exting Suital Unsui media Speci fightir Hazal ucts Speci for fire	Fire-fighting measure guishing media ble extinguishing media itable extinguishing a ial hazards arising fror fic hazards during fire- ing rdous combustion prod- ial protective actions f al protective equipment	 Water spray Alcohol-resi Carbon diox Dry chemica None knowr None knowr the substance Exposure to No hazardor or fire-fighters In the event Use persona Use extingu cumstances Use water s 	stant foam ide (CO2) al n. or mixture combustion products may be a hazard to health us combustion products are known of fire, wear self-contained breathing apparatus.



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		so. Evacuate area.		
Section 6	: Accidental release m	neasures		
	precautions, protective onal precautions	: Use personal pr Follow safe han	hergency procedures otective equipment. dling advice (see section 7) and personal pro- nt recommendations (see section 8).	
	nental precautions onmental precautions	Prevent further I Prevent spreadi barriers). Retain and disp	o the environment. eakage or spillage if safe to do so. ng over a wide area (e.g. by containment or oil ose of contaminated wash water. s should be advised if significant spillages ined.	
Methods and materials for contain Methods for cleaning up		: Soak up with ine For large spills, ment to keep ma be pumped, stor Clean up remain bent. Local or nationa posal of this ma employed in the mine which regu Sections 13 and	Soak up with inert absorbent material. For large spills, provide dyking or other appropriate contain- ment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate contain Clean up remaining materials from spill with suitable absor-	

Section 7: Handling and storage

Precautions for safe handling

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation Advice on safe handling	:	Use only with adequate ventilation.
Hygiene measures	:	If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working



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		Wash contamir The effective of engineering col appropriate deg	not eat, drink or smoke. nated clothing before re-use. peration of a facility should include review of ntrols, proper personal protective equipment, gowning and decontamination procedures, ne monitoring, medical surveillance and the trative controls.
Cond	litions for safe storage	e, including any inco	ompatibilities
Cond	itions for safe storage		ly labelled containers. ance with the particular national regulations.
Mater	rials to avoid		th the following product types:

Section 8: Exposure controls/personal protection

Control parameters

Occupational Exposure Limits

		1			
Components	CAS-No.	Value type (Form of	Control parame- ters / Permissible	Basis	
		exposure)	concentration		
Moxifloxacin HCL	186826-86-8	TWA	1000 µg/m3 (OEB 1)	Internal	
Appropriate engineering control measures	technologies less quick cor All engineerin design and op protect produc	to control airborr nnections). g controls should berated in accord cts, workers, and	controls and manufac ne concentrations (e.g d be implemented by dance with GMP princ d the environment. require special contai	g., drip- facility siples to	
Individual protection measure	es, such as pers	sonal protective	equipment (PPE)		
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 protection	: Work uniform	or laboratory co	at.		
Respiratory protection	: If adequate lo sure assessm ommended gr	cal exhaust vent lent demonstrate uidelines, use re	tilation is not available as exposures outside spiratory protection.		
Filter type Hand protection	: Particulates ty				
Material	: Chemical-resi	istant gloves			





Section 9: Physical and chemical properties

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Appearance	:	liquid
Colour	:	yellow
Odour	:	odourless
Odour Threshold	:	No data available
рН	:	4.1 - 4.6
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available

Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
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	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	1.0044 g/cm ³ (20 °C)
Solubility(ies) Water solubility	:	slightly soluble
Partition coefficient: n- octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		

Viscosity, kinematic

: No data available





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0	xidizir	g properties	:	The substance of	r mixture is not classified as oxidizing.
М	lolecul	ar weight	:	No data available)
	article article	characteristics size	:	No data available	
Sectio	on 10:	Stability and reactivi	ty		
C Pe tic C In H	ossibil ons ondition	al stability ity of hazardous reac- ons to avoid atible materials ous decomposition		Stable under norn Can react with st None known. Oxidizing agents	a reactivity hazard. mal conditions. rong oxidizing agents. composition products are known.
Sectio	on 11:	Toxicological inform	atic	on	
	nforma xposui	tion on likely routes of e	:	Inhalation Skin contact Ingestion Eye contact	
		oxicity sified based on availa	ble	information.	
<u>C</u>	ompo	nents:			
		xacin HCL: ral toxicity	:	LD50 (Rat): 1,320 LD50 (Mouse): > 4 LD50 (Monkey): 1	435 mg/kg
-		rrosion/irritation sified based on availa	ble	information.	
<u>C</u>	ompo	nents:			
М	loxiflo	xacin HCL:			
	pecies esult	;	:	Rabbit No skin irritation	
S	erious	s eye damage/eye irri	tati	on	



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Comr	oonents:		
	loxacin HCL:		
Speci Resul	es	: Rabbit : Moderate ey	e irritation
Respi	iratory or skin sensiti	sation	
-	sensitisation assified based on avai	lable information.	
-	iratory sensitisation		
	assified based on avai	lable information.	
	cell mutagenicity assified based on avai	lable information.	
Comp	oonents:		
Moxif	loxacin HCL:		
Geno	toxicity in vitro	: Test Type: E Result: posit	acterial reverse mutation assay (AMES)
		Test Type: 0 Result: nega	Chromosome aberration test in vitro tive
		Test Type: lı Result: nega	n vitro mammalian cell gene mutation test tive
		Test Type: ir Result: nega	n vitro micronucleus test tive
Geno	toxicity in vivo	: Test Type: N cytogenetic Application F Result: nega	Route: Oral
	nogenicity		
	assified based on avai	lable information.	
	oductive toxicity assified based on avai	lable information.	
Comp	oonents:		
Moxif	loxacin HCL:		
Effect	s on fertility	Species: Ra Application I	Route: Oral \EL: 500 mg/kg body weight
	s on foetal develop-	: Test Type: E	mbryo-foetal development



ersion .14	Revision Date: 28.09.2024		OS Number: 31715-00015	Date of last issue: 06.04.2024 Date of first issue: 05.06.2017		
ment			Species: Monke Application Rou Developmental Result: negativ	ute: Oral Toxicity: NOAEL: 10 mg/kg body weight		
			Species: Rabbi Application Rou Developmental	oryo-foetal development t ute: Intravenous injection Toxicity: LOAEL: 20 mg/kg body weight eletal malformations		
	Reproductive toxicity - As- : sessment		Some evidence of adverse effects on development, based on animal experiments.			
	- single exposure assified based on avai	lable	information.			
	- repeated exposure assified based on avai		information.			
<u>Com</u>	oonents:					
Moxif	loxacin HCL:					
-	rget Organs : Liver sessment : May cause damage to organs through prolonged or exposure.					
Repe	ated dose toxicity					
Comp	oonents:					
Moxif	loxacin HCL:					
Speci	es	:	Rat			
LOAE		:	100 mg/kg			
	Application Route:OralExposure time:4 Weeks					
Speci	es	:	Rat			
	NOAEL : 100 mg/kg					
	cation Route sure time	:	: Oral : 13 Weeks			
	t Organs	÷	: Liver			
Symp		:	Liver disorders			
Speci		:	Rat			
NOAE		:	20 mg/kg Oral			
	cation Route sure time	•	6 Months			
Targe	t Organs	:	Liver			
Symp	toms	:	Liver disorders			
Speci	es	:	Monkey			



NOAEL		173	S Number: 31715-00015	Date of last issue: 06.04.2024 Date of first issue: 05.06.2017		
		:	50 mg/kg			
	tion Route	:	Oral			
Exposu Sympto		:	4 Weeks No adverse effe	ects		
Species		:	Monkey			
NOAEL		:	15 mg/kg			
Applicat Exposu	tion Route	÷	Oral 13 Weeks			
Target (:	Gastrointestinal	tract		
Sympto		:	Vomiting			
Species		:	Monkey			
	tion Route	:	Oral			
Exposu Target (÷	26 Weeks Liver			
Sympto		:	Liver disorders			
	ssified based on ava					
Not clas Experie Compo	ssified based on ava					
Not clas Experie Compo	ssified based on ava ence with human ex onents: oxacin HCL:		re Symptoms: Nau	ısea, Abdominal pain, Headache, Dizzines system effects, joint pain		
Not class Experie Compo Moxiflo Ingestio	ssified based on ava ence with human ex onents: oxacin HCL:	xposu :	re Symptoms: Nau			
Not class Experie Compo Moxiflo Ingestio	ssified based on ava ence with human ex onents: oxacin HCL: on Ecological informa	xposu :	re Symptoms: Nau			
Not class Experie Compo Moxiflo Ingestio ection 12: Toxicity	ssified based on ava ence with human ex onents: oxacin HCL: on Ecological informa	xposu :	re Symptoms: Nau	ısea, Abdominal pain, Headache, Dizzines system effects, joint pain		
Not class Experie Compo Moxiflo Ingestio ection 12: Toxicity No data	ssified based on ava ence with human ex onents: oxacin HCL: on Ecological informa y a available	xposu : ation	re Symptoms: Nau			
Not class Experie Compo Moxiflo Ingestio ection 12: Toxicity No data Persist	ssified based on ava ence with human ex onents: oxacin HCL: on Ecological informa	xposu : ation	re Symptoms: Nau			
Not class Experie Compo Moxiflo Ingestio ection 12: Toxicity No data Persiste No data	ssified based on ava ence with human ex onents: oxacin HCL: on Ecological informa y a available tence and degradat	xposu : ation	re Symptoms: Nau			
Not class Experie Compo Moxiflo Ingestio ection 12: Toxicity No data Persiste No data Bioacce	ssified based on ava ence with human ex onents: oxacin HCL: on Ecological informa y a available tence and degradate a available	xposu : ation	re Symptoms: Nau			
Not class Experie Compo Moxiflo Ingestio ection 12: Toxicity No data Persist No data Bioaccu No data	ssified based on ava ence with human ex onents: oxacin HCL: on Ecological informa y a available sence and degradate a available sumulative potentia	xposu : ation	re Symptoms: Nau			
Not class Experie Compo Moxiflo Ingestio ection 12: Toxicity No data Persiste No data Bioacce No data Mobility	ssified based on ava ence with human ex onents: oxacin HCL: on Ecological informa y a available sence and degradate a available sumulative potentia a available	xposu : ation	re Symptoms: Nau			
Not class Experie Compo Moxifio Ingestio ection 12: Toxicity No data Persiste No data Bioacce No data Mobility No data	ssified based on ava ence with human ex onents: oxacin HCL: on Ecological informa y a available cence and degradate a available cumulative potentia a available y in soil	xposu : ation	re Symptoms: Nau			

Waste from residues	:	Do not dispose of waste into sewer.
Contaminated packaging	:	Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste han-



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dling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

Section 14: Transport information

International Regulations

International Regulations		
UNRTDG UN number UN proper shipping name Transport hazard class(es) 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. UN proper shipping name Transport hazard class(es) 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 UN proper shipping name Transport hazard class(es) Subsidiary risk Packing group Labels EmS Code Marine pollutant		Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Special precautions for user

Not applicable

Section 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Workplace Safety and Health Act and Workplace Safety and Health (General Provisions) Regulations: This product is subjected to the SDS, labelling, PEL and other requirements in the Act/Regulations.

Environmental Protection and Management Act and : Not applicable Environmental Protection and Management (Hazard-





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0.10							
ous a	ous Substances) Regulations						
	Fire Safety (Petroleum and Flammable Materials) : Not applicable Regulations						
The c	components of this pro	odu	ct are reported in	the following inventories:			
AICS		:	not determined	-			
DSL		:	not determined				
IECS	С	:	not determined				
Section 1	Section 16: Other information						
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Furth	ner information						
	oile the Safety Data	:		data, data from raw material SDSs, OECD arch results and European Chemicals Agen- ropa.eu/			

Date format : dd.mm.yyyy

Full text of other abbreviations

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 Tem-

SAFETY DATA SHEET



Moxifloxacin Liquid Formulation

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perature; 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 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.

SG / EN