according to GB/T 16483 and GB/T 17519



Enramycin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/06
4.0	2024/09/28	24582-00023	Date of first issue: 2014/10/22

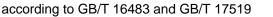
1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Enramycin Formulation			
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	:	powder light brown characteristic
Very toxic to aquatic life. Toxic	to	aquatic life with long lasting effects.
GHS Classification Short-term (acute) aquatic hazard	:	Category 1
Long-term (chronic) aquatic hazard	:	Category 2
GHS label elements		
Hazard pictograms	:	¥_2
Signal word	:	Warning
Hazard statements	:	H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.





Enramycin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/06
4.0	2024/09/28	24582-00023	Date of first issue: 2014/10/22

Precautionary statements

Prevention:

P273 Avoid release to the environment.

Response: P391 Collect spillage.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Physical and chemical hazards

Not classified based on available information.

Health hazards

Not classified based on available information.

Environmental hazards

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Other hazards which do not result in classification

Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin. May form explosible dust-air mixture if dispersed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Talc	14807-96-6	>= 90 -<= 100
ENRAMYCIN B	34304-21-7	>= 2.5 -< 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 if symptoms occur.
In case of skin contact	:	Wash with water and soap.
		Get medical attention if symptoms occur.
In case of eye contact	:	If in eyes, rinse well with water.
		Get medical attention if irritation develops and persists.
If swallowed	:	If swallowed, DO NOT induce vomiting.
		Get medical attention if symptoms occur.
		Rinse mouth thoroughly with water.
Most important symptoms	:	Contact with dust can cause mechanical irritation or drying of

according to GB/T 16483 and GB/T 17519



Enramycin Formulation

Vers 4.0	sion	Revision Date: 2024/09/28	-	0S Number: 582-00023	Date of last issue: 2024/04/06 Date of first issue: 2014/10/22
	delaye Protect	ects, both acute and d tion of first-aiders to physician	:	No special precau	the eyes can lead to mechanical irritation. Itions are necessary for first aid responders. cally and supportively.
5. F	IREFIG	HTING MEASURES			
	Suitabl	e extinguishing media	:	Water spray Alcohol-resistant Carbon dioxide (C Dry chemical	
	Unsuita media	able extinguishing	:	High volume wate	r jet
	Specifi fighting	c hazards during fire-	:	concentrations, ar potential dust exp Do not use a solic fire.	dust; fine dust dispersed in air in sufficient nd in the presence of an ignition source is a losion hazard. I water stream as it may scatter and spread pustion products may be a hazard to health.
	Hazaro ucts	lous combustion prod-	:	Carbon oxides Nitrogen oxides (I	NOx)
	Specifi ods	c 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
		l protective equipment ïghters	:	essary.	ed breathing apparatus for firefighting if nec- ective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	:	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.

according to GB/T 16483 and GB/T 17519



Enramycin Formulation

Versior 4.0	n Revision Date: 2024/09/28	SDS Number: 24582-00023	Date of last issue: 2024/04/06 Date of first issue: 2014/10/22
		with compress Dust deposits es, as these n leased into the Local or nation posal of this n employed in the mine which re Sections 13 a	al of dust in the air (i.e., clearing dust surfaces sed air). should not be allowed to accumulate on surfac- nay form an explosive mixture if they are re- e atmosphere in sufficient concentration. nal regulations may apply to releases and dis- naterial, as well as those materials and items ne cleanup of releases. You will need to deter- gulations are applicable. nd 15 of this SDS provide information regarding r national requirements.
7. HAN	DLING AND STORAGE		
	andling		
Te	echnical measures	causing an ex Provide adequ	ty may accumulate and ignite suspended dust plosion. uate precautions, such as electrical grounding or inert atmospheres.
Lo	cal/Total ventilation	: Use only with	adequate ventilation.
Ac	lvice on safe handling	practice, base sessment Minimize dust Keep containe Keep away fro	e dust. ordance with good industrial hygiene and safety ed on the results of the workplace exposure as- generation and accumulation. er closed when not in use. om heat and sources of ignition. orevent spills, waste and minimize release to the
Av	voidance of contact	: None.	
St	orage		
	onditions for safe storage		rly labelled containers. dance with the particular national regulations.
Ма	aterials to avoid	: No special res	strictions on storage with other products.

Packaging material : Unsuitable material: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Talc	14807-96-6	PC-TWA (Total dust)	3 mg/m3	CN OEL
		PC-TWA (Respirable dust)	1 mg/m3	CN OEL



according to GB/T 16483 and GB/T 17519

Enramycin Formulation

Version 4.0	Revision Date: 2024/09/28	SDS Number: 24582-00023	Date of last issue: 2024/04/06 Date of first issue: 2014/10/22		
			TWA (Res- pirable par- ticulate mat- ter)	2 mg/m3	ACGIH
ENR/	AMYCIN B	34304-21-7	TŴA	5 mg/m3 (OEB 1)	Internal
Engineering measures :		compound. All engineeri design and c	ng controls shoul	trols to minimize expo d be implemented by dance with GMP prin d the environment.	r facility
Perse	onal protective equip	oment			
Fi	 Respiratory protection If adequate local exhaust ventilation is not availa sure assessment demonstrates exposures outsid ommended guidelines, use respiratory protection Filter type Eye/face protection Wear safety glasses with side shields or goggles If the work environment or activity involves dusty mists or aerosols, wear the appropriate goggles. Wear a faceshield or other full face protection if t potential for direct contact to the face with dusts, aerosols. 			es exposures outside spiratory protection. e shields or goggles. tivity involves dusty c opropriate goggles. I face protection if the	onditions,
Hand	and body protection protection aterial	: Work uniform			
Hygie	ene measures	eye flushing ing place. When using Wash contar The effective engineering appropriate o industrial hys	 If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the wor ing place. When using do not eat, drink or smoke. 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	:	powder
Colour	:	light brown
Odour	:	characteristic
Odour Threshold	:	No data available
рН	:	5 - 8.5
Melting point/freezing point	:	No data available

according to GB/T 16483 and GB/T 17519



Enramycin Formulation

Vers 4.0	ion	Revision Date: 2024/09/28	-	S Number: 82-00023	Date of last issue: 2024/04/06 Date of first issue: 2014/10/22
	Initial b range	oiling point and boiling	:	No data available	9
	Flash p	oint	:	No data available	9
	Evapor	ation rate	:	No data available	9
	Flamma	ability (solid, gas)	:	No data available	9
	Flamma	ability (liquids)	:	No data available	9
		explosion limit / Upper bility limit	:	No data available)
		explosion limit / Lower bility limit	:	No data available)
	Vapour	pressure	:	No data available	9
	Relative	e vapour density	:	No data available	9
	Relative	e density	:	No data available	9
	Solubili Wat	ty(ies) er solubility	:	practically insolul	ble
	Partition octanol	n coefficient: n-	:	No data available)
		nition temperature	:	No data available)
	Decom	position temperature	:	No data available)
	Viscosi [.] Visc	ty sosity, kinematic	:	No data available)
	Explosi	ve properties	:	Not explosive	
	Oxidizir	ng properties	:	The substance o	r mixture is not classified as oxidizing.
	Molecu	lar weight	:	No data available	9
	Particle Particle	e characteristics e size	:	No data available	9

10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reac-	:	Dust can form an explosive mixture in air.

according to GB/T 16483 and GB/T 17519



Enramycin Formulation

Version 4.0	Revision Date: 2024/09/28		DS Number: 582-00023	Date of last issue: 2024/04/06 Date of first issue: 2014/10/22
Incon	litions to avoid npatible materials rdous decomposition ucts	:		ation. ecomposition products are known.
11. TOXIC	COLOGICAL INFORMA		N	
Expo	sure routes	:	Inhalation Skin contact Ingestion Eye contact	
	e toxicity lassified based on avail	lable	information.	
Com	ponents:			
Talc:				
Acute	Acute oral toxicity		LD50 (Rat): > 5,0 Remarks: Based	000 mg/kg on data from similar materials
ENR	AMYCIN B:			
Acute	Acute oral toxicity		LD50 (Mouse): >	• 5,000 mg/kg
			LD50 (Rat): > 10	,000 mg/kg
	corrosion/irritation	lable	information.	
Com	ponents:			
Talc:				
Spec Resu		:	Rabbit No skin irritation	
	ous eye damage/eye ir lassified based on avail			
Com	ponents:			
Talc:				
Spec Resu		:	Rabbit No eye irritation	
ENR	AMYCIN B:			
Spec Resu	ies It	:	Rabbit No eye irritation	

according to GB/T 16483 and GB/T 17519



Enramycin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/06
4.0	2024/09/28	24582-00023	Date of first issue: 2014/10/22

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Talc:		
Exposure routes Species Result	:	Skin contact
Species	:	Humans
Result	:	negative

Germ cell mutagenicity

Not classified based on available information.

Components:

i ulti	
Genotoxicity in vitro	Test Type: DNA damage and repair, unscheduled DNA syn- thesis in mammalian cells (in vitro) Result: negative
Genotoxicity in vivo	Test Type: Chromosome aberration test in vitro Species: Rat Application Route: Ingestion Result: negative
ENRAMYCIN B:	

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
-----------------------	--

Carcinogenicity

Not classified based on available information.

Components:

Talc:

Species Application Route Exposure time Result	: Mouse : inhalation (dust/mist/fume) : 2 Years
Result	: negative

Reproductive toxicity

Not classified based on available information.

according to GB/T 16483 and GB/T 17519



Enramycin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/06
4.0	2024/09/28	24582-00023	Date of first issue: 2014/10/22

Components:

Talc:

Effects on foetal develop- ment	:	Test Type: Embryo-foetal development Species: Rat
		Application Route: Ingestion
		Result: negative

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

ENRAMYCIN B:

Species NOAEL Application Route	:	Rat
NOAEL	:	1,000 mg/kg
Application Route	:	Ingestion
Exposure time	:	6 Months

Aspiration toxicity

Not classified based on available information.

12. ECOLOGICAL INFORMATION

Components:

Talc:

Toxicity to fish	: LC50 (Brachydanio rerio (zebrafish)): > 100,000 mg/l Exposure time: 24 h
ENRAMYCIN B:	

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): > 1 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: No toxicity at the limit of solubility
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: No toxicity at the limit of solubility
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 18 mg/l Exposure time: 72 h

according to GB/T 16483 and GB/T 17519



Enramycin Formulation

Version 4.0	Revision Date: 2024/09/28	SDS Number: 24582-00023	Date of last issue: 2024/04/06 Date of first issue: 2014/10/22
П		Method: OEC	D Test Guideline 201
		mg/l Exposure time	dokirchneriella subcapitata (green algae)): 0.96 e: 72 h D Test Guideline 201
		Exposure time	ena flos-aquae (cyanobacterium)): 0.083 mg/l e: 72 h D Test Guideline 201
		Exposure time	aena flos-aquae (cyanobacterium)): 0.045 mg/l e: 72 h D Test Guideline 201
	actor (Acute aquatic tox-	: 10	
	actor (Chronic aquatic	: 1	
toxici Toxic	ity) city to microorganisms	: EC50: 438.5 Exposure tim Method: OEC	
		EC10: 0.045 Exposure tim Method: OEC	
II Pers	istence and degradabil	itv	
	ponents:	,	
	AMYCIN B:		
Biode	egradability		eadily biodegradable. D Test Guideline 301B
	ccumulative potential ata available		
	ility in soil ata available		
	r adverse effects		
	ata available		
13. DISPO	DSAL CONSIDERATION	IS	
Disp	osal methods		
Wast	e from residues		se of waste into sewer.
Cont	aminated packaging		accordance with local regulations. ners should be taken to an approved waste han-

according to GB/T 16483 and GB/T 17519



Enramycin Formulation

	Version 4.0	Revision Date: 2024/09/28	SDS Number: 24582-00023	Date of last issue: 2024/04/06 Date of first issue: 2014/10/22
--	----------------	---------------------------	-------------------------	---

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

14. TRANSPORT INFORMATION

International Regulations

UNRTDG		
UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ENRAMYCIN B)
Class	:	9
Packing group	:	
Labels	:	9
Environmentally hazardous	:	yes
IATA-DGR		
UN/ID No.	:	UN 3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (ENRAMYCIN B)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	956
Packing instruction (passen- ger aircraft)	:	956
Environmentally hazardous	:	yes
IMDG-Code		
UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ENRAMYCIN B)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes

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

Not applicable for product as supplied.

National Regulations

GB 6944/12268 UN number Proper shipping name	:	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ENRAMYCIN B)
Class Packing group	:	9



according to GB/T 16483 and GB/T 17519

Enramycin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/06
4.0	2024/09/28	24582-00023	Date of first issue: 2014/10/22

Labels	:	9
Marine pollutant	:	no

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.

15. REGULATORY INFORMATION

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Regulations on ballety	Management of Hazard	
Catalogue of Hazardou	s Chemicals	: This product is not listed in the cata- logue of hazardous chemicals, but it meets the definition of hazardous chemicals and its principles of de- termination.
Identification of Major ⊢ 18218)	azard Installations for Ha	zardous Chemicals (GB : Not listed
Hazardous Chemicals f SAWS	or Priority Management u	nder : Not listed
Regulations on Labou	r Protection in Workpla	ces where Toxic Substances are Used
Catalogue of Highly To:		: Not listed
Regulation of Environ and Export of Toxic C		the First Import of Chemicals and the Import
China Severely Restrict and Export	ed Toxic Chemicals for Ir	nport : Not listed
Regulation on the Adr	ninistration of Precurso	r Chemicals
Catalogue and Classific	ation of Precursor Chemi	cals : Not listed
Yangtze River Protect	ion Law	
This product does not c	ontain any dangerous che	emicals prohibited for inland river transport.
The components of th	is product are reported	in the following inventories:
AICS	: not determined	-
DSL	: not determined	t
IECSC	: not determined	t

according to GB/T 16483 and GB/T 17519



Enramycin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/06
4.0	2024/09/28	24582-00023	Date of first issue: 2014/10/22

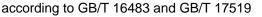
16. OTHER INFORMATION

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		

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 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





Enramycin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/06
4.0	2024/09/28	24582-00023	Date of first issue: 2014/10/22

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.

CN / EN