

Ceftiofur Formulation

Version 6.0	Revision Date: 28.09.2024		S Number: 74004-00012	Date of last issue: 06.07.2024 Date of first issue: 15.12.2020			
SECTION	SECTION 1. IDENTIFICATION						
Product name		:	Ceftiofur Formul	Ceftiofur Formulation			
Manu	afacturer or supplier	s deta	ils				
Com	bany	:	MSD				
Addre	Address :		Talcahuano 750, 6th floor, Ciudad Autonoma Buenos Aires, Argentina C1013AAP				
Telep	bhone	: 908-740-4000					
Emer	Emergency telephone		1-908-423-6000				
E-ma	il address	:	EHSDATASTEV	VARD@msd.com			
Reco	mmended use of the	chem	ical and restricti	ons on use			
	mmended use ictions on use	:	Veterinary produ Not applicable	uct			

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification Respiratory sensitization	:	Category 1
Skin sensitization	:	Category 1
GHS label elements		
Hazard pictograms	:	
Signal Word	:	Danger
Hazard Statements	:	H317 May cause an allergic skin reaction. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Precautionary Statements	:	Prevention: P261 Avoid breathing mist or vapors. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves. P284 Wear respiratory protection.
		Response: P302 + P352 IF ON SKIN: Wash with plenty of water.



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		keep comforta P333 + P313 I vice/ attention P342 + P311 I POISON CEN	f experiencing respiratory symptoms: Call a
		Disposal: P501 Dispose disposal plant.	of contents/ container to an approved waste

Other hazards which do not result in classification

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture :	Mixture
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Components

Chemical name	CAS-No.	Concentration (% w/w)
Ceftiofur	103980-44-5	>= 5 -< 10
Benzyl alcohol	100-51-6	>= 1 -< 5

SECTION 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. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. 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 if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	:	May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis,
Protection of first-aiders	:	reactive airways dysfunction syndrome). First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment



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Note	es to physician	:		al for exposure exists (see section 8). ically and supportively.		
SECTIO	N 5. FIRE-FIGHTING ME	ASL	JRES			
Suit	able extinguishing media	ia : Water spray Alcohol-resistant for Carbon dioxide (CC Dry chemical				
Uns mec	uitable extinguishing lia	:	None known.	None known.		
Spe fight	cific hazards during fire ting	:	Exposure to com	Exposure to combustion products may be a hazard to health.		
Haz ucts	ardous combustion prod-	:	Carbon oxides	Carbon oxides		
Spe ods	cific extinguishing meth-	 Use extinguishing measures that are appropriate to cumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is so. Evacuate area. 		the surrounding environment. to cool unopened containers.		
	cial protective equipment ire-fighters	:		e, wear self-contained breathing apparatus. tective equipment.		
SECTIO	N 6. ACCIDENTAL RELE	AS	E MEASURES			
tive	sonal precautions, protec- equipment and emer- cy procedures	:	Follow safe hand	tective equipment. ling advice (see section 7) and personal nent recommendations (see section 8).		
Env	ironmental precautions	:	Prevent spreadin oil barriers). Retain and dispo	eakage or spillage if safe to do so. g over a wide area (e.g., by containment or se of contaminated wash water. should be advised if significant spillages		
	Methods and materials for containment and cleaning up		For large spills, p containment to k	rt absorbent material. provide diking or other appropriate eep material from spreading. If diked material		

container.

absorbent.

can be pumped, store recovered material in appropriate

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items

employed in the cleanup of releases. You will need to

Clean up remaining materials from spill with suitable



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		Sections 13 a	nich regulations are applicable. and 15 of this SDS provide information regarding or national requirements.			
SECTION	7. HANDLING AND ST	ORAGE				
Tech	nical measures		ring measures under EXPOSURE PERSONAL PROTECTION section.			
Local	/Total ventilation		If sufficient ventilation is unavailable, use with local exhaust			
Advic	e on safe handling	: Do not get or Do not breat Do not swalle Avoid contac Handle in acc practice, bas assessment Keep contair Already sens to asthma, al should consu	t with eyes. cordance with good industrial hygiene and safety ed on the results of the workplace exposure er tightly closed. itized individuals, and those susceptible lergies, chronic or recurrent respiratory disease, ilt their physician regarding working with ritants or sensitizers. prevent spills, waste and minimize release to the			
	litions for safe storage rials to avoid	 Keep in properly labeled containers. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Do not store with the following product types: Strong oxidizing agents Gases 				

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ingiouronite main nomplace						
Components	CAS-No.	Value type (Form of	Control parame- ters / Permissible	Basis		
		exposure)	concentration			
Ceftiofur	103980-44-5	TWA	100 mcg/m3	Internal		
			(OEB 2)			
	Further information: RSEN, DSEN					

Ingredients with workplace control parameters

Engineering measures :	Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., dripless quick connections). 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.
Personal protective equipment	
Description in a start set as	If a lawyers lavel and any structure that is not an all her an

Respiratory protection : If adequate local exhaust ventilation is not available or



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Hand	lter type protection aterial	recommende : Combined pa	sessment demonstrates exposures outside the ed guidelines, use respiratory protection. articulates and organic vapor type sistant gloves		
Eye p	protection	If the work er mists or aero Wear a faces	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 Hygiene measures		: If exposure to eye flushing working place When using Contaminate workplace. Wash contan The effective engineering of appropriate of industrial hyg	If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the		

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	suspension
Color	:	white to off-white, cream
Odor	:	No data available
Odor Threshold	:	No data available
рН	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	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	:	No data available



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	flamma	bility limit			
	Vapor p	pressure	:	No data available)
	Relative	e vapor density	:	No data available)
	Relative	edensity	:	No data available)
	Density		:	0,850 - 1,050 g/c No data available	
	Solubilit Wate	ty(ies) er solubility	:	No data available	9
	Partitior octanol	n coefficient: n-	:	Not applicable	
		ition temperature	:	No data available)
	Decom	position temperature	:	No data available)
	Viscosit Visc	y osity, kinematic	:	No data available	
	Explosi	ve properties	:	Not explosive	
	Oxidizir	ng properties	:	The substance of	r mixture is not classified as oxidizing.
	Molecul	ar weight	:	No data available	
	Particle Particle	characteristics size	:	Not applicable	

SECTION 10. STABILITY AND REACTIVITY

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

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of	:	Inhalation
exposure		Skin contact
		Ingestion
		Eye contact

Acute toxicity

Not classified based on available information.

Product:



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Acute	oral toxicity	:	Acute toxicity esti Method: Calculati	mate: > 5.000 mg/kg on method
<u>Comp</u>	onents:			
Ceftio	fur:			
Acute	oral toxicity	:	LD50 (Rat): > 7.7	60 mg/kg
Benzy	/l alcohol:			
Acute	oral toxicity	:	LD50 (Rat): 1.200) mg/kg
Acute	inhalation toxicity	:		h
Skin o	corrosion/irritation			

Not classified based on available information.

Components:

Benzyl alcohol:

Species Method Result	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Benzyl alcohol:

Species Result Method	:	Rabbit
Result	:	Irritation to eyes, reversing within 21 days
Method	:	OECD Test Guideline 405

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Components:

Ceftiofur:

	:	Inhalation
Result Remarks	:	Sensitizer
Remarks	:	May cause sensitization by inhalation.



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rsion)	Revision Date: 28.09.2024	SDS Numbe 7674004-00	
Benz	yl alcohol:		
Test	Гуре s of exposure es	: Human i : Skin cor : Humans : positive	
Asses	ssment	: Probabil rate in h	lity or evidence of low to moderate skin sensitizatio umans
	cell mutagenicity assified based on av	ailahle informatio	n
	onents:		51.
Ceftic			
	toxicity in vitro	: Test Typ Result: r	be: Bacterial reverse mutation assay (AMES) negative
		Test Typ Result: r	pe: In vitro mammalian cell gene mutation test negative
		Test Typ Result: r	be: unscheduled DNA synthesis assay negative
Geno	toxicity in vivo	Species	ion Route: Intraperitoneal
Benz	yl alcohol:		
	toxicity in vitro	: Test Typ Result: r	be: Bacterial reverse mutation assay (AMES) negative
Geno	toxicity in vivo	cytogene Species	ion Route: Intraperitoneal injection
II Carci	nogenicity		
	assified based on av	ailable informatio	on.

Benzyl alcohol:

Species	: Mouse
Application Route	: Ingestion
Exposure time	: 103 weeks
Method	: OECD Test Guideline 451
Species Application Route Exposure time Method Result	: negative

Reproductive toxicity

Not classified based on available information.



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Comp	oonents:			
Ceftic	ofur:			
Effect	s on fertility	:	Test Type: Fertilit Application Route Fertility: NOAEL: Result: No advers	Oral 1.000 mg/kg body weight
Effect	s on fetal development	:	Test Type: Develor Application Route Developmental To Result: No advers	e: Oral oxicity: NOAEL: 1.000 mg/kg body weight
Benz	yl alcohol:			
Effect	s on fertility	:	Species: Rat Application Route Result: negative	y/early embryonic development e: Ingestion on data from similar materials
Effect	s on fetal development	:	Test Type: Embry Species: Mouse Application Route Result: negative	vo-fetal development e: Ingestion
	-single exposure lassified based on availa	able	information.	
	-repeated exposure lassified based on availated	able	information.	
<u>Comp</u>	oonents:			
Ceftic	ofur:			
Route Asses	es of exposure ssment	:	Oral May cause dama exposure.	ge to organs through prolonged or repeated
Repe	ated dose toxicity			
<u>Comp</u>	oonents:			
Ceftic	ofur:			
Expos	EL cation Route sure time et Organs toms	:	Rat 30 mg/kg Oral 90 d Gastrointestinal tr Gastrointestinal d May cause dama	listurbance
Speci NOAE		:	Dog 30 mg/kg	



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	sure time t Organs ırks	:	90 d Blood, Central ne May cause dama	
Speci NOAE Applic		:	Rat 1,072 mg/l inhalation (dust/r 28 Days	nist/fume)
Metho		:	OECD Test Guid	eline 412
-	ation toxicity			
	assified based on availa rience with human exp			
•	oonents:			
	ofur: ral Information ition	:	ceptible persons	et may cause allergic reactions in very sus- sea, Vomiting, Abdominal pain, vaginitis,
	12. ECOLOGICAL INFO	ORM		ness, dry mouth, Fatigue, constipation, coli
CTION Ecoto <u>Comp</u>	oxicity oonents:	DRI		ness, dry mouth, Fatigue, constipation, coli
CTION Ecoto <u>Comp</u> Benzy	oxicity		IATION	ness, dry mouth, Fatigue, constipation, coli es promelas (fathead minnow)): 460 mg/l 6 h
CTION Ecoto <u>Comp</u> Benzy Toxici Toxici	oxicity ponents: yl alcohol:	:	IATION LC50 (Pimephale Exposure time: 9 EC50 (Daphnia r Exposure time: 4	es promelas (fathead minnow)): 460 mg/l 6 h nagna (Water flea)): 230 mg/l
CTION Ecoto <u>Comr</u> Benzy Toxici aquat	exicity bonents: yl alcohol: ty to fish ty to daphnia and other ic invertebrates ty to algae/aquatic	:	ATION LC50 (Pimephale Exposure time: 9 EC50 (Daphnia r Exposure time: 4 Method: OECD 1 EC50 (Pseudokin mg/l Exposure time: 7	es promelas (fathead minnow)): 460 mg/l 6 h nagna (Water flea)): 230 mg/l 8 h Fest Guideline 202 rchneriella subcapitata (green algae)): 770
CTION Ecoto Comp Benzy Toxici aquati Toxici	exicity bonents: yl alcohol: ty to fish ty to daphnia and other ic invertebrates ty to algae/aquatic	:	ATION LC50 (Pimephale Exposure time: 9 EC50 (Daphnia r Exposure time: 4 Method: OECD 1 EC50 (Pseudokin mg/l Exposure time: 7 Method: OECD 1 NOEC (Pseudok mg/l Exposure time: 7	es promelas (fathead minnow)): 460 mg/l 6 h nagna (Water flea)): 230 mg/l 8 h ⁻ est Guideline 202 rchneriella subcapitata (green algae)): 770 2 h ⁻ est Guideline 201 irchneriella subcapitata (green algae)): 310



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Persis	stence and degradabi	lity	
<u>Comp</u>	onents:		
	r l alcohol: gradability	: Result: Readily Biodegradation Exposure time:	
Bioac	cumulative potential		
<u>Comp</u>	onents:		
Partitic	r l alcohol: on coefficient: n- ol/water	: log Pow: 1,05	
	ty in soil ta available		
•	adverse effects ta available		
SECTION 1	13. DISPOSAL CONSI	DERATIONS	

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

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code Not regulated as a dangerous good

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

Not applicable for product as supplied.

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture



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Argentina. Carcinogenic Substances and Agents : Not applicable Registry.						
	Control of precursors and essential chemicals for the : Not applicable preparation of drugs.					
The ingredients of this product are reported in the following inventories:						
AICS		: not determined				
IECS	0	: not determined				

SECTION 16. OTHER INFORMATION

Revision Date	: 28.09.2024
Date format	: dd.mm.yyyy

Further information

Sources of key data used to	:	Internal technical data, data from raw material SDSs, OECD
compile the Material Safety		eChem Portal search results and European Chemicals Agen-
Data Sheet		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.

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



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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 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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