

/ersion 5.1	Revision Date: 28.09.2024		S Number: 344-00031	Date of last issue: 06.04.2024 Date of first issue: 05.11.2014	
Section 1:	Identification				
Produ	ıct identifier	:	Imipenem / Cilastatin Formulation		
Recor	mmended use of the	chem	ical and restricti	ions on use	
	nmended use ctions on use	:	Pharmaceutical Not applicable		
Manu	facturer or supplier's	s detai	ils		
Comp	any	:	MSD		
Addre	SS	:	50 Tuas West D Singapore - Sin	0rive ngapore 638408	
Telepł	hone	:	+1-908-740-400	00	
Emerg	gency telephone numb	oer :	65 6697 2111 (2	24/7/365)	
E-mai	l address	:	EHSDATASTEV	WARD@msd.com	
Section 2:	Hazard identification	n			

Serious eye damage/eye irri- tation	:	Category 2
Respiratory sensitisation	:	Category 1
Reproductive toxicity	:	Category 2
Short-term (acute) aquatic hazard	:	Category 1
Long-term (chronic) aquatic hazard	:	Category 1

GHS Label elements, including precautionary statements

Hazard pictograms	
Signal word	: Danger
Hazard statements	 H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



Version 6.1	Revision Date: 28.09.2024	SDS Number: 15844-00031	Date of last issue: 06.04.2024 Date of first issue: 05.11.2014
			ected of damaging the unborn child. xic to aquatic life with long lasting effects.
Preca	utionary statements	P202 Do not and understo P261 Avoid b P264 Wash s P273 Avoid r P280 Wear p tion/ face pro	special instructions before use. handle until all safety precautions have been rea od. breathing dust. skin thoroughly after handling. elease to the environment. rotective gloves/ protective clothing/ eye protec- tection/ hearing protection. espiratory protection.
		keep comfort P305 + P351 for several m easy to do. C P308 + P313 attention. P337 + P313 tention. P342 + P311	IF INHALED: Remove person to fresh air and able for breathing. + P338 IF IN EYES: Rinse cautiously with water inutes. Remove contact lenses, if present and continue rinsing. IF exposed or concerned: Get medical advice/ If eye irritation persists: Get medical advice/ at- If experiencing respiratory symptoms: Call a NTER/ doctor. spillage.
		Storage: P405 Store lo	ocked up.
		Disposal: P501 Dispose disposal plan	e of contents/ container to an approved waste

Contact with dust can cause mechanical irritation or drying of the skin. May form explosive dust-air mixture during processing, handling or other means.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Cilastatin	81129-83-1	>= 50 -< 70
Imipenem	74431-23-5	>= 30 -< 50



Version	Revision Date:	SDS Number:	Date of last issue: 06.04.2024
6.1	28.09.2024	15844-00031	Date of first issue: 05.11.2014

Section 4: First-aid measures

Description of necessary fin	rst-a	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. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
In case of skin contact	:	
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.
Most important symptoms a	and	effects, both acute and delayed
Risks	:	Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficul- ties if inhaled. Suspected of damaging the unborn child. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reac- tive airways dysfunction syndrome). Contact with dust can cause mechanical irritation or drying of the skin.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Indication of any immediate	e me	edical attention and special treatment needed
Treatment	:	Treat symptomatically and supportively.

- Treatment
- Section 5: Fire-fighting measures

Extino	uishing	media
	uisiiiig	meana

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing	:	None known.



Imipenem / Cilastatin Formulation

Version 6.1	Revision Date: 28.09.2024	SDS Number: 15844-00031	Date of last issue: 06.04.2024 Date of first issue: 05.11.2014
media	а		

Special hazards arising from t Specific hazards during fire- : fighting	he substance or mixture Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Exposure to combustion products may be a hazard to health.			
Hazardous combustion prod- : ucts	Carbon oxides			
Special protective actions for fire-fighters				
Special protective equipment : for firefighters	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.			
Specific extinguishing meth- : ods	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do			

SO.

Evacuate area.

Section 6: Accidental release measures

	quipment and emergency procedures Use personal protective equipment. Follow safe handling advice (see section 7) and personal pro- tective equipment recommendations (see section 8).
Environmental precautions 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 contain Methods for cleaning up :	 ment and cleaning up Surround spill with absorbents and place a damp covering over the area to minimise entry of the material into the air. Add excess liquid to allow the material to enter into solution. Soak up with inert absorbent material. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items



Version 6.1	Revision Date: 28.09.2024	SDS Numb 15844-0003	
		mine wh Sections	ed in the cleanup of releases. You will need to deter- ich regulations are applicable. Is 13 and 15 of this SDS provide information regarding local or national requirements.
Section 7:	Handling and storage	e	
Preca	utions for safe handli	ing	
Techr	nical measures	causing Provide	ectricity may accumulate and ignite suspended dust an explosion. adequate precautions, such as electrical grounding ding, or inert atmospheres.
	Total ventilation e on safe handling	: Use onl Do not s Do not s Do not s Do not s Avoid p Wash sl Handle practice sessme Keep co Already to asthm should o tory irrit: Keep co Keep av Take pr	 with adequate ventilation. preathe dust. wallow. get in eyes. olonged or repeated contact with skin. kin thoroughly after handling. n accordance with good industrial hygiene and safety based on the results of the workplace exposure as- ntainer tightly closed. sensitised individuals, and those susceptible na, allergies, chronic or recurrent respiratory disease, consult their physician regarding working with respira- ants or sensitisers. a dust generation and accumulation. ntainer closed when not in use. vay from heat and sources of ignition. ecautionary measures against static discharges.
Hygie	ne measures	flushing place. When u Wash c The effe enginee appropr industria	ure to chemical is likely during typical use, provide eye systems and safety showers close to the working sing do not eat, drink or smoke. ontaminated clothing before re-use. ctive operation of a facility should include review of ring controls, proper personal protective equipment, ate degowning and decontamination procedures, Il hygiene monitoring, medical surveillance and the dministrative controls.
Cond	itions for safe storage	e, including a	ny incompatibilities
	tions for safe storage	: Keep in Store lo Keep tig	properly labelled containers. cked up. htly closed. accordance with the particular national regulations.
Mater	ials to avoid	: Do not s	tore with the following product types: widizing agents



Version	Revision Date:	SDS Number:	Date of last issue: 06.04.2024
6.1	28.09.2024	15844-00031	Date of first issue: 05.11.2014

Section 8: Exposure controls/personal protection

Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type	Control parame-	Basis	
		(Form of	ters / Permissible		
		exposure)	concentration		
Cilastatin	81129-83-1	TWA	5 mg/m3 (OEB 1)	Internal	
Imipenem	74431-23-5	TWA	3000 ug/m3 (OEB	Internal	
			1)		
	Further information	ation: RSEN, DS	SEN		
		Wipe limit	100 µg/100 cm2	Internal	
Appropriate engineering : control measures	Use feasible engineering controls to minimize exposure to compound. All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.				
Individual protection measure	s, such as pers	onal protective	equipment (PPE)		
Eye/face protection :					
Skin protection :	Work uniform	or laboratory co	at.		
Respiratory protection :	sure assessm ommended gu	ient demonstrate uidelines, use re	tilation is not available as exposures outside spiratory protection.		
Filter type : Hand protection Material :	Particulates ty Chemical-resi	•			
		gioreo			

Section 9: Physical and chemical properties

Appearance	:	powder
Colour	:	white
Odour	:	sulphurous
Odour Threshold	:	No data available
рН	:	No data available
Melting point/freezing point	:	No data available



Versi 6.1	ion	Revision Date: 28.09.2024		S Number: 44-00031	Date of last issue: 06.04.2024 Date of first issue: 05.11.2014
	Initial bo range	piling point and boiling	:	No data available)
	Flash p	oint	:	Not applicable	
	Evapora	ation rate	:	Not applicable	
	Flamma	ability (solid, gas)	:	May form explosi dling or other me	ve dust-air mixture during processing, han- ans.
	Flamma	ability (liquids)	:	Not applicable	
		explosion limit / Upper bility limit	:	No data available	
		explosion limit / Lower bility limit	:	No data available	
	Vapour	pressure	:	Not applicable	
	Relative	e vapour density	:	Not applicable	
	Relative	e density	:	No data available)
	Density		:	1 g/cm ³	
	Solubilit Wate	ty(ies) er solubility	:	No data available	
	Partitior octanol/	n coefficient: n-	:	Not applicable	
		nition temperature	:	No data available	
	Decomp	position temperature	:	No data available	
	Viscosit Visc	y osity, dynamic	:	No data available)
	Visc	osity, kinematic	:	Not applicable	
	Explosiv	ve properties	:	Not explosive	
	Oxidizir	ng properties	:	The substance or	r mixture is not classified as oxidizing.
	Molecul	ar weight	:	No data available	
	Particle Particle	characteristics size	:	No data available	

Section 10: Stability and reactivity





-	Revision Date: 28.09.2024	-	9S Number: 844-00031	Date of last issue: 06.04.2024 Date of first issue: 05.11.2014
	tivity hical stability bility of hazardous reac-	:	Stable under no	s a reactivity hazard. ormal conditions. sive dust-air mixture during processing, han- eans.
Cond	itions to avoid npatible materials rdous decomposition lcts	:	Can react with s Heat, flames an Avoid dust form Oxidizing agent	strong oxidizing agents. d sparks. ation.
	1: Toxicological inform	atic	on	
	nation on likely routes of		Inhalation Skin contact Ingestion Eye contact	
	e toxicity lassified based on availa	ble	information.	
Com	oonents:			
Cilas	tatin:			
Cilas		:	LD50 (Rat): 8,00 LD50 (Mouse): 8	
Cilas Acute	tatin: e oral toxicity	:	LD50 (Rat): 8,00 LD50 (Mouse): 8	
Cilas Acute	tatin:	:	. ,	3,000 mg/kg
Cilas Acute Imipe Acute Acute	tatin: e oral toxicity enem:	:	LD50 (Mouse): 8 LD50 (Mouse): 1	8,000 mg/kg 0,000 mg/kg 000 mg/kg
Cilas Acute Imipe Acute Acute	tatin: e oral toxicity enem: e oral toxicity e toxicity (other routes of	:	LD50 (Mouse): 8 LD50 (Mouse): 1 LD50 (Rat): > 2,	8,000 mg/kg 0,000 mg/kg 000 mg/kg e: Intravenous ,500 mg/kg
Cilas Acute Imipe Acute Acute admir	tatin: e oral toxicity enem: e oral toxicity e toxicity (other routes of	:	LD50 (Mouse): 8 LD50 (Mouse): 1 LD50 (Rat): > 2, Application Rout LD50 (Mouse): 1 Application Rout	8,000 mg/kg 0,000 mg/kg 000 mg/kg e: Intravenous ,500 mg/kg
Cilas Acute Imipe Acute admin Skin Not c	tatin: e oral toxicity enem: e oral toxicity e toxicity (other routes of histration) corrosion/irritation	:	LD50 (Mouse): 8 LD50 (Mouse): 1 LD50 (Rat): > 2, Application Rout LD50 (Mouse): 1 Application Rout	8,000 mg/kg 0,000 mg/kg 000 mg/kg e: Intravenous ,500 mg/kg

Causes serious eye irritation.



ersion 1	Revision Date: 28.09.2024		S Number: 844-00031	Date of last issue: 06.04.2024 Date of first issue: 05.11.2014
Com	ponents:			
	tatin:			
Speci			Rabbit	
Resu		:	Moderate eye	irritation
Resp	iratory or skin sens	itisatio	n	
Skin	sensitisation			
Not c	lassified based on av	ailable	information.	
-	iratory sensitisatior			
May	cause allergy or asthr	na sym	ptoms or breath	ning difficulties if inhaled.
Com	ponents:			
Cilas	tatin:			
	sure routes	:	Skin contact	
Rema	arks	:	No data availa	DIE
	sure routes	:	Inhalation	
Rema	arks	:	No data availa	ble
-	enem:			
Rema	arks	:	May cause ser of aerosol or d	nsitisation of susceptible persons by inhalation ust.
Expo	sure routes	:	Skin contact	
Rema		:	Not classified of	due to lack of data.
Germ	n cell mutagenicity			
Not c	lassified based on av	ailable	information.	
<u>Com</u>	ponents:			
Cilas	tatin:			
Geno	toxicity in vitro	:		robial mutagenesis assay (Ames test)
			Result: negativ	/e
Imine	enem:			
-	toxicity in vitro	:	Test Type: In v	vitro mammalian cell gene mutation test
				Chinese hamster lung cells
			-	
			Result: negativ	erse mutation assay /e
			Test Type: uns	scheduled DNA synthesis assay
			Result: negativ	
			Test Tune: Ch	romosomal aberration
			i cot i ype. Off	



/ersion 6.1	Revision Date: 28.09.2024		S Number: 344-00031	Date of last issue: 06.04.2024 Date of first issue: 05.11.2014
			Result: negat	ive
			Test Type: sis Result: negat	ster chromatid exchange assay ive
Geno	otoxicity in vivo	:	Species: Mou	oute: Intravenous
	inogenicity			
	lassified based on ava	ailable i	nformation.	
-	oductive toxicity ected of damaging the	e unbor	n child.	
Com	ponents:			
Cilas	tatin:			
Effec	ts on fertility	:	Application R Fertility: LOA Symptoms: N	o adverse effects fects on fertility and early embryonic develop-
Imipe	enem:			
-	ts on fertility	:	Species: Rat, Application R Fertility: LOA Symptoms: N	ertility/early embryonic development male and female oute: Intravenous EL: 80 mg/kg body weight o adverse effects, Reduced foetal weight fects on fertility and early embryonic develop- tected.
			Species: Rat, Application R Fertility: LOA Symptoms: N	ertility/early embryonic development male and female oute: Subcutaneous EL: 320 mg/kg body weight o adverse effects, Reduced foetal weight fects on fertility and early embryonic develop- tected.
Effec ment	ts on foetal develop-	:	Development Result: Embr	
			Test Type: Do Species: Rab	



ersion 1	Revision Date: 28.09.2024	SDS Number: 15844-00031	Date of last issue: 06.04.2024 Date of first issue: 05.11.2014
		Application R	Route: Intravenous
		Developmen	tal Toxicity: NOAEL: 60 mg/kg body weight aratogenic effects
		Test Type: D	
		Species: Rat Application R	Route: Intravenous
		Developmen	tal Toxicity: NOAEL: 60 mg/kg body weight pratogenic effects
Repro sessn	oductive toxicity - As- nent	: Some eviden animal exper	nce of adverse effects on development, based o iments.
STOT	- single exposure		
Not cl	assified based on avail	lable information.	
	- repeated exposure	labla información a	
	lassified based on avail ated dose toxicity	lable information.	
-	oonents:		
-			
Cilas Speci		: Rat	
			~
NOAE	=L	: >= 500 md/k	
NOAE Applic	L Cation Route	: >= 500 mg/kg : Intravenous	y
Applio Expos	cation Route sure time	: Intravenous : 90 Days	-
Applic	cation Route sure time	: Intravenous : 90 Days	y t adverse effects were reported
Applic Expos Rema Speci	cation Route sure time arks es	: Intravenous : 90 Days : No significan : Monkey	t adverse effects were reported
Applic Expos Rema Speci NOAE	cation Route sure time arks es EL	 Intravenous 90 Days No significan Monkey >= 500 mg/kg 	t adverse effects were reported
Applic Expos Rema Speci NOAE Applic	cation Route sure time arks es EL cation Route	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 	t adverse effects were reported
Applic Expos Rema Speci NOAE Applic	cation Route sure time arks EL cation Route sure time	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks 	t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos	cation Route sure time arks EL cation Route sure time arks	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks 	t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos Rema Imipe Speci	cation Route sure time arks es EL cation Route sure time arks enem: es	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks No significan Monkey 	t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos Rema Imipe Speci NOAE	cation Route sure time arks es EL cation Route sure time arks enem: es EL	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks No significan Monkey 60 mg/kg 	t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos Rema Imipe Speci NOAE LOAE	cation Route sure time arks es EL cation Route sure time arks enem: es EL EL	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks No significan Monkey 60 mg/kg 150 mg/kg 	t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos Rema Speci NOAE LOAE Applic	cation Route sure time arks EL cation Route sure time arks enem: es EL EL cation Route	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks No significan Monkey 60 mg/kg 150 mg/kg Intravenous 	t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos Rema Speci NOAE LOAE Applic Expos	cation Route sure time arks es EL cation Route sure time arks enem: es EL EL	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks No significan Monkey 60 mg/kg 150 mg/kg 	t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos Rema Imipe Speci NOAE Applic Expos Targe	cation Route sure time arks EL cation Route sure time arks enem: es EL cation Route sure time out Organs es	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks No significan Monkey 60 mg/kg 150 mg/kg Intravenous 6 Months Kidney Monkey 	t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos Rema Imipe Speci NOAE LOAE Applic Expos Targe Speci NOAE	cation Route sure time arks es EL cation Route sure time arks enem: es EL cation Route sure time es tucation Route sure time et Organs es EL	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks No significan Monkey 60 mg/kg 150 mg/kg Intravenous 6 Months Kidney Monkey 120 mg/kg 	t adverse effects were reported g t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos Rema Imipe Speci NOAE Applic Expos Targe Speci NOAE Applic	cation Route sure time arks es EL cation Route sure time arks enem: es EL cation Route sure time et Organs es EL cation Route	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks No significan Monkey 60 mg/kg 150 mg/kg Intravenous 6 Months Kidney Monkey 120 mg/kg Subcutaneou 	t adverse effects were reported g t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos Rema Imipe Speci NOAE Applic Expos Targe Speci NOAE Applic	cation Route sure time arks es EL cation Route sure time arks enem: es EL cation Route sure time et Organs es EL cation Route sure time et Organs	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks No significan Monkey 60 mg/kg 150 mg/kg Intravenous 6 Months Kidney Monkey 120 mg/kg Subcutaneou 6 Months 	t adverse effects were reported g t adverse effects were reported
Applic Expos Rema Speci NOAE Applic Expos Rema Speci NOAE LOAE Applic Expos Targe Speci NOAE Applic Expos	es es es es es es es es enem: es es es es es es es es es es es es es	 Intravenous 90 Days No significan Monkey >= 500 mg/kg Intravenous 5 Weeks No significan Monkey 60 mg/kg 150 mg/kg Intravenous 6 Months Kidney Monkey 120 mg/kg Subcutaneou 6 Months 	t adverse effects were reported g t adverse effects were reported



ersion 1	Revision Date: 28.09.2024		0S Number: 844-00031	Date of last issue: 06.04.2024 Date of first issue: 05.11.2014
		: :	Intravenous 6 Months No significant ad Rabbit	verse effects were reported
	EL cation Route et Organs	:	150 mg/kg Intravenous Kidney	
	ration toxicity lassified based on availa	able	information.	
Expe	rience with human exp	osi	ire	
<u>Comp</u>	oonents:			
Imipe Inhala		:	Dizziness, Drows	sea, Vomiting, Diarrhoea, Fever, hypotensic siness, Convulsions, pruritis, Rash ause sensitisation of susceptible persons by psol or dust.
	ponents:			
Cilas Toxic	tatin: ity to fish	:	Exposure time: 9	es promelas (fathead minnow)): > 111 mg/l l6 h Fest Guideline 203
	ity to daphnia and other ic invertebrates	:	Exposure time: 4	nagna (Water flea)): > 99 mg/l 8 h Fest Guideline 202
Toxic plants	ity to algae/aquatic	:	Exposure time: 7	a flos-aquae): > 99 mg/l '2 h Fest Guideline 201
			mg/l Exposure time: 7	rchneriella subcapitata (green algae)): > 99 2 h Fest Guideline 201
			Exposure time: 7	a flos-aquae): 99 mg/l 2 h Fest Guideline 201
			NOEC (Pseudok mg/l	irchneriella subcapitata (green algae)): 99



Version 6.1	Revision Date: 28.09.2024		0S Number: 844-00031	Date of last issue: 06.04.2024 Date of first issue: 05.11.2014
			Exposure time: 7 Method: OECD 7	2 h Fest Guideline 201
Toxic icity)	ity to fish (Chronic tox-	:	Exposure time: 3	es promelas (fathead minnow)): > 9.9 mg/l 2 d Fest Guideline 210
	ity to daphnia and other tic invertebrates (Chron- icity)	:	Exposure time: 2	nagna (Water flea)): > 10 mg/l 1 d Fest Guideline 211
Toxic	ity to microorganisms	:	EC50: > 1,000 m Exposure time: 3 Test Type: Resp Method: OECD 1	5 h
Imipe	enem:			
Toxic	ity to daphnia and other tic invertebrates	:	Exposure time: 4	nagna (Water flea)): > 78 mg/l 8 h Fest Guideline 202
Toxic plants	ity to algae/aquatic s	:	Exposure time: 7	a flos-aquae (cyanobacterium)): 0.0046 mg/ 2 h Fest Guideline 201
			Exposure time: 7	a flos-aquae (cyanobacterium)): 0.002 mg/l 2 h Fest Guideline 201
			mg/l Exposure time: 7	rchneriella subcapitata (green algae)): > 74 '2 h Fest Guideline 201
			mg/l Exposure time: 7	irchneriella subcapitata (green algae)): 74 2 h Fest Guideline 201
	ctor (Acute aquatic tox-	:	100	
icity) Toxic icity)	ity to fish (Chronic tox-	:	Exposure time: 3	les promelas (fathead minnow)): 9.4 mg/l 2 d Fest Guideline 210
	ity to daphnia and other tic invertebrates (Chron- icity)	:	Exposure time: 2	magna (Water flea)): 11 mg/l 1 d Fest Guideline 211
	ctor (Chronic aquatic	:	10	
toxici Toxic	ty) ity to microorganisms	:	EC50: > 1,000 m	ıg/l



				3 h spiration inhibition Test Guideline 209
Persist	ence and degradabil	ity		
<u>Compo</u>	onents:			
Cilasta Biodegr	tin: adability	:	Biodegradation Exposure time:	
Imipen	em:			
Biodegr	adability	:	Biodegradation Exposure time:	
Bioacc	umulative potential			
<u>Compo</u>	onents:			
Cilasta	tin:			
Partitior octanol	n coefficient: n- /water	:	log Pow: -3.53	
Imipen				
Partition octanol	n coefficient: n- /water	:	log Pow: < -1	
Mobility	y in soil			
<u>Compo</u>	nents:			
Cilasta	tin:			
	tion among environ- compartments	:	log Koc: 2.3	
Other a	dverse effects			
No data	a available			

Disposal methods		
Waste from residues	:	Do not dispose of waste into sewer. Dispose of in accordance with local regulations.
Contaminated packaging	:	Empty containers should be taken to an approved waste han- dling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.



VersionRevision Date:SDS Number:Date of last issue: 06.04.20246.128.09.202415844-00031Date of first issue: 05.11.2014	
---	--

Section 14: Transport information

International Regulations

UNRTDG		
UN number		UN 3077
UN proper shipping name	÷	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
		N.O.S.
		(Imipenem)
Transport hazard class(es)	:	9
Packing group	:	III
Labels	:	9
Environmental hazards	:	yes
IATA-DGR		
UN/ID No.	:	UN 3077
UN proper shipping name	:	Environmentally hazardous substance, solid, n.o.s.
		(Imipenem)
Transport hazard class(es)	:	9
Packing group	:	
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	·	956
Packing instruction (passen-		956
ger aircraft)	•	350
Environmentally hazardous	•	ves
•	•	,
IMDG-Code		
UN number Proper shipping name	÷	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
Proper shipping name	·	N.O.S.
		(Imipenem)
Transport hazard class(es)	•	9
Packing group	÷	
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

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.



Version	Revision Date:	SDS Number:	Date of last issue: 06.04.2024
6.1	28.09.2024	15844-00031	Date of first issue: 05.11.2014

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 (Hazardous Substances) Regulations Fire Safety (Petroleum and Flammable Materials) : Not applicable Regulations The components of this product are reported in the following inventories: AICS not determined : DSL not determined

Section 16: Other information

IECSC

Revision Date	:	28.09.2024
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 Agency, http://echa.europa.eu/
Date format	:	dd.mm.yyyy

not determined

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



Version	Revision Date:	SDS Number:	Date of last issue: 06.04.2024
6.1	28.09.2024	15844-00031	Date of first issue: 05.11.2014

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 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