

# **Cloxacillin Formulation**

Version	Revision Date: 2024/04/06	SDS Number:	Date of last issue: 2023/09/30
5.0		1089897-00017	Date of first issue: 2016/11/30

#### **1. PRODUCT AND COMPANY IDENTIFICATION**

Chemical product name	:	Cloxacillin Formulation
Supplier's company name, a	ddr	ess and phone number
Company name of supplier	:	MSD
Address	:	Kumagaya, Saitama Prefecture , Xicheng 810 MSD Co., Ltd. Menuma factory
Telephone	:	048-588-8411
E-mail address	:	EHSDATASTEWARD@msd.com
Emergency telephone number	:	+1-908-423-6000

#### Recommended use of the chemical and restrictions on use

Recommended use	:	Veterinary product
Restrictions on use	:	Not applicable

### 2. HAZARDS IDENTIFICATION

GHS classification of chemical product Respiratory sensitisation : Category 1				
Skin sensitisation	:	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 vapours. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves. P284 Wear respiratory protection.		



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#### **Response:**

P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P362 + P364 Take off contaminated clothing and wash it before reuse.

#### Disposal:

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

#### Other hazards which do not result in classification

None known.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)	ENCS No.
cloxacillin	61-72-3	>= 1 - < 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. 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	:	



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	ection of first-aiders s to physician	:	other respiratory of tive airways dysfu First Aid responde and use the recor when the potentia	The may aggravate preexisting asthma and disorders (e.g. emphysema, bronchitis, reac- nction syndrome). Firs should pay attention to self-protection, nmended personal protective equipment I for exposure exists (see section 8). cally and supportively.
5. FIREFI	GHTING MEASURES			
Suita	Suitable extinguishing media		Water spray Alcohol-resistant Carbon dioxide (C Dry chemical	
Unsu medi	iitable extinguishing	:	None known.	
Spec	ific hazards during fire-	:	Exposure to com	oustion products may be a hazard to health.
fighti Haza ucts	ng Irdous combustion prod-	:	: Carbon oxides Chlorine compounds Nitrogen oxides (NOx) Sulphur compounds	
Spec ods	ific extinguishing meth-	: Use extinguishing measures that are appropriate to loca cumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe so.		he surrounding environment. o cool unopened containers.
	ial protective equipment refighters	:	Evacuate area. In the event of fire	e, wear self-contained breathing apparatus. rective equipment.
6. ACCID	ENTAL RELEASE MEAS	SUF	RES	
tive e	onal precautions, protec- equipment and emer- y procedures	:	Follow safe handl	ective equipment. ing advice (see section 7) and personal pro- recommendations (see section 8).
Envir	onmental precautions	:	Prevent spreading barriers). Retain and dispos	akage or spillage if safe to do so. g over a wide area (e.g. by containment or oil se of contaminated wash water. should be advised if significant spillages
	ods and materials for ainment and cleaning up	:	For large spills, p ment to keep mat be pumped, store	t absorbent material. rovide dyking or other appropriate contain- erial from spreading. If dyked material can recovered material in appropriate container. ng materials from spill with suitable absor-





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		posal of this m employed in th mine which reg Sections 13 an	al regulations may apply to releases and dis- aterial, as well as those materials and items e cleanup of releases. You will need to deter- julations are applicable. d 15 of this SDS provide information regarding national requirements.
. HANDLI	NG AND STORAGE		
Handl	ling		
Techn	ical measures	: See Engineerir CONTROLS/P	ng measures under EXPOSURE ERSONAL PROTECTION section.
Advice	Total ventilation e on safe handling	<ul> <li>Use only with a</li> <li>Do not get on s</li> <li>Avoid breathing</li> <li>Do not swallow</li> <li>Avoid contact w</li> <li>Handle in accorpractice, based</li> <li>sessment</li> <li>Keep contained</li> <li>Already sensititito asthma, alle</li> <li>should consult</li> <li>tory irritants or</li> <li>Take care to pre</li> </ul>	adequate ventilation. skin or clothing. g mist or vapours. with eyes. rdance with good industrial hygiene and safety d on the results of the workplace exposure as- r tightly closed. sed individuals, and those susceptible rgies, chronic or recurrent respiratory disease, their physician regarding working with respira- sensitisers. revent spills, waste and minimize release to the
	ance of contact ne measures	flushing system place. When using do Contaminated workplace. Wash contamin The effective o engineering co appropriate de industrial hygie	ts chemical is likely during typical use, provide ey ns and safety showers close to the working o not eat, drink or smoke. work clothing should not be allowed out of the nated clothing before re-use. peration of a facility should include review of ntrols, proper personal protective equipment, gowning and decontamination procedures, one monitoring, medical surveillance and the trative controls.
Storag	-		
	tions for safe storage ials to avoid	Keep tightly clo Store in accord	lance with the particular national regulations. ith the following product types:
		Ottong Oxidizin	g agoins



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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Reference concentration / Permissible con- centration	Basis
cloxacillin	61-72-3	TWA	100 µg/m3 (OEB 2)	Internal
	Further inform	ation: RSEN, DS	EN	
		Wipe limit	100 µg/100 cm2	Internal
Engineering measures	technologies less quick cor All engineerin design and op protect produc	to control airborn nections). g controls should berated in accord cts, workers, and	controls and manufactive concentrations (e.g d be implemented by lance with GMP princ the environment. require special conta	g., drip- facility ciples to
Personal protective equipment	nt			
Respiratory protection Filter type	sure assessm ommended g	ient demonstrate uidelines, use re	ilation is not availables es exposures outside spiratory protection. ganic vapour type	
Hand protection Material	: Chemical-resi			
Eye protection	If the work en mists or aeros Wear a faces	vironment or act sols, wear the ap hield or other full	shields or goggles. ivity involves dusty or propriate goggles. face protection if the ne face with dusts, m	ere is a
Skin and body protection	: Work uniform	or laboratory co	at.	

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid
Colour	: No data available
Odour	: characteristic
Odour Threshold	: No data available
Melting point/freezing point	: No data available
Boiling point, initial boiling	: No data available



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poir	nt and boiling range			
Flai	mmability (solid, gas)	:	Not applicable	
Flai	mmability (liquids)	:	No data available	9
	ver explosion limit and upp Upper explosion limit / Up- per flammability limit			
	Lower explosion limit / Lower flammability limit	:	No data available	9
Flas	sh point	:	No data available	9
Dec	composition temperature	:	No data available	9
pН		:	No data available	9
Eva	aporation rate	:	No data available	9
Aut	o-ignition temperature	:	No data available	9
	cosity Viscosity, kinematic	:	No data available	9
	ubility(ies) Water solubility	:	insoluble	
	tition coefficient: n- anol/water	:	No data available	9
Vap	oour pressure	:	No data available	9
	nsity and / or relative densi Relative density	ity :	No data available	9
ļ	Density	:	No data available	9
Rel	ative vapour density	:	No data available	9
Exp	plosive properties	:	Not explosive	
Oxi	dizing properties	:	The substance o	r mixture is not classified as oxidizing.
Mol	lecular weight	:	No data available	9
	ticle characteristics Particle size	:	No data available	9



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#### **10. STABILITY AND REACTIVITY**

Reactivity Chemical stability Possibility of hazardous reac- tions	:	Not classified as a reactivity hazard. Stable under normal conditions. Can react with strong oxidizing agents.
Conditions to avoid Incompatible materials Hazardous decomposition products	:	

#### **11. TOXICOLOGICAL INFORMATION**

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

#### Acute toxicity

Not classified based on available information.

#### Components:

#### cloxacillin:

I	Acute oral toxicity		LD50 (Rat): 5,000 mg/kg
			LD50 (Mouse): 5,000 mg/kg
	Acute toxicity (other routes of administration)	:	LD50 (Mouse): 1,117 mg/kg Application Route: Intramuscular
			LD50 (Mouse): 916 mg/kg Application Route: Intravenous
			LD50 (Mouse): 1,500 mg/kg Application Route: Subcutaneous
			LD50 (Rat): 1,660 mg/kg Application Route: Intravenous
			LD50 (Rat): 4,200 mg/kg Application Route: Subcutaneous

#### Skin corrosion/irritation

Not classified based on available information.

#### Components:

### cloxacillin:

Remarks

: Not classified due to lack of data.



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Not cla	us eye damage/eye assified based on ava ponents:			
cloxad Rema	-	: N	lot classified c	ue to lack of data.
Respi	ratory or skin sens	itisation		
May ca	sensitisation ause an allergic skin ratory sensitisation			
-	-		oms or breath	ing difficulties if inhaled.
	oonents:			
	sure routes sment	: P	ermal robability or e ositive	vidence of skin sensitisation in humans
Asses Result		a	robability of re nimal testing ositive	espiratory sensitisation in humans based on
Not cla	cell mutagenicity assified based on ava conents: cillin:	ailable inf	ormation.	
Genot	oxicity in vitro	R R	lesult: negativ	mation given is based on data obtained from
Genot	oxicity in vivo	S R R	pecies: Mous esult: negativ	e mation given is based on data obtained fron
Not cla	nogenicity assified based on ava ponents:	ailable inf	ormation.	
cloxad Rema	-	: N	lot classified c	ue to lack of data.



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#### **Reproductive toxicity**

Not classified based on available information.

#### **Components:**

C	loxa	CII	lın:
-			

oloxuoliilii		
Effects on fertility :		Test Type: Multi-generation study Species: Rat Application Route: Oral Fertility: NOAEL: 500 mg/kg body weight Result: No effects on fertility, No effects on reproduction pa- rameters
Effects on foetal develop- ment	:	Test Type: Development Species: Rabbit Application Route: Oral Developmental Toxicity: NOAEL: 100 mg/kg body weight Result: No malformations were observed.
		Test Type: Development Species: Rabbit Application Route: Intramuscular Developmental Toxicity: NOAEL: 250 mg/kg body weight Result: No effects on foetal development

#### STOT - single exposure

Not classified based on available information.

#### STOT - repeated exposure

Not classified based on available information.

#### Repeated dose toxicity

#### Components:

#### cloxacillin:

Species LOAEL	: Rat	
LÖAEL	: 7,000 r	ng/kg
Application Route	: Intrave	nous
Exposure time	: 4 Weel	ks
Symptoms	: Hypog	lycemia

#### Aspiration toxicity

Not classified based on available information.

#### Experience with human exposure

#### **Components:**

#### cloxacillin:

Inhalation	:	Remarks: May cause sensitisation of susceptible persons.
Skin contact	:	Symptoms: Dermatitis



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Ever	contact		Remarks: May iri		
Eye contact : Ingestion :		Symptoms: May	Remarks: May irritate eyes. Symptoms: May cause, Gastrointestinal disturbance, Rash Remarks: May cause sensitisation of susceptible persons.		
	OGICAL INFORMATIC	N			
No da <b>Persi</b> No da	ata available istence and degradabi ata available ccumulative potential	lity			
	ponents:				
Partit	acillin: ion coefficient: n- iol/water	:	log Pow: 2.44		
	<b>lity in soil</b> ata available				
	rdous to the ozone lay pplicable	yer			
	<b>r adverse effects</b> ata available				
13. DISPO	SAL CONSIDERATIO	NS			
Disp	osal methods				
-	e from residues	:		ordance with local regulations.	
Conta	aminated packaging	:	Do not dispose o Empty containers dling site for recy	f waste into sewer. s should be taken to an approved waste han-	

### 14. TRANSPORT INFORMATION

### International Regulations

UNRTDO	)

olicable
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Envir	onmentally hazardous	no	
UN/IE Prope Class Subs Packi Label Packi aircra Packi	er shipping name idiary risk ng group s ng instruction (cargo	Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable	
UN n Prope Class Subsi Packi Label EmS	idiary risk ng group	Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable	

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

Not applicable for product as supplied.

#### National Regulations

Refer to section 15 for specific national regulation.

#### Special precautions for user

Not applicable

#### **15. REGULATORY INFORMATION**

#### **Related Regulations**

#### **Fire Service Law**

Not applicable to dangerous materials / designated flammables.

#### **Chemical Substance Control Law**

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

#### Industrial Safety and Health Law

#### Harmful Substances Prohibited from Manufacture

Not applicable

#### Harmful Substances Required Permission for Manufacture Not applicable

### Substances Prevented From Impairment of Health Not applicable





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on Ex	lar concerning Info (isting Chemicals ha		s having Mutagenicity - Annex 2: Informatic
Circu on No	lar concerning Info otified Substances I	rmation on Chemicals naving Mutagenicity	s having Mutagenicity - Annex 1: Informati
Subs	oplicable tances Subject to b oplicable	e Notified Names	
	tances Subject to b oplicable	e Indicated Names	
	tances Subject to b oplicable	e Indicated Names	
tions	-	s (Article 577-2 of the	Occupational Health and Safety Regula-
	ance on Prevention	of Hazards Due to S	pecified Chemical Substances
	ance on Preventior	of Lead Poisoning	
	ance on Preventior	of Tetraalkyl Lead Po	oisoning
	ance on Preventior	of Organic Solvent F	Poisoning
Subs	cement Order of the tances) oplicable	e Industrial Safety and	d Health Law - Attached table 1 (Dangerous
	p <b>nous and Deleterio</b>	us Substances Contr	ol Law
viron	ment and Promotio		of Specific Chemical Substances in the Er the Management Thereof
	oplicable		
_	Pressure Gas Safet	y Act	
	oplicable		
-	osive Control Law		
Vess	el Safety Law	ous good	
Aviat	ion Law gulated as a danger	-	



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Mari	ne Pollution and Sea	Disaster Preventio	n etc Law
Bulk	transportation	: Not classified	d as noxious liquid substance
Pack	transportation	: Not classified	d as marine pollutant
Narc Not a Spec	Narcotics and Psychotropics Control Act Narcotic or Psychotropic Raw Material (Export / Import Permission) Not applicable Specific Narcotic or Psychotropic Raw Material (Export / Import permission) Not applicable		
Waste Disposal and Public Cleansing Law Industrial waste			
The components of this product are reported in the following inventories:			
AICS	3	: not determin	ed
DSL		: not determin	ed
IECS	SC	: not determin	ed
16. OTHE			

#### 16. OTHER INFORMATION

#### Further information

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

Date format : yyyy/mm/dd

#### 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



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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.

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