

according to the Globally Harmonized System

Diclazuril Formulation

Version 1.9	Revision Date: 28.09.2024		S Number: 90734-00010	Date of last issue: 30.09.2023 Date of first issue: 01.10.2020						
(
1. PROD	1. PRODUCT AND COMPANY IDENTIFICATION									
Proc	Product name		Diclazuril Formulation							
Man	ufacturer or supplier's o	leta	ils							
Con	npany	:	MSD							
Add	Address		Briahnager - Off Pune Nagar Road Wagholi - Pune - India 412 207							
Tele	phone	:	+1-908-740-4000)						
Eme	ergency telephone number	r:	+1-908-423-6000)						
E-m	E-mail address		EHSDATASTEWARD@msd.com							
Rec	ommended use of the cl	nem	ical and restriction	ons on use						
	ommended use trictions on use	:	Veterinary produ Not applicable	ct						

2. HAZARDS IDENTIFICATION

Manufacture, Storage and Import of Hazardous Chemicals Rules 1989

Classification

Not classified as hazardous according to criteria laid down in Part I of Schedule-1.

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

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

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 explosive dust-air mixture during processing, handling or other means.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
White mineral oil (petroleum)	8042-47-5	>= 1 - < 5
Diclazuril	101831-37-2	>= 1 - < 3

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4. FI	RST AI	D MEASURES							
General advice		:	 In the case of accident or if you feel unwell, seek medical vice immediately. When symptoms persist or in all cases of doubt seek mediately. 						
If inhaled		:	: If inhaled, remove to fresh air.						
	In case of skin contact			 Get medical attention. In case of contact, immediately flush skin with soal of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse. 					
	In case	of eye contact	:	If in eyes, rinse we					
	If swallowed				NOT induce vomiting. tion.				
		nportant symptoms ects, both acute and d	:	Contact with dust the skin.	can cause mechanical irritation or drying of the eyes can lead to mechanical irritation.				
	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).					
	Notes t	o physician	:		cally and supportively.				
5. FI	REFIGI	HTING MEASURES							
	Suitable	e extinguishing media	:	Water spray Alcohol-resistant f Carbon dioxide (C Dry chemical					
	Unsuita media	able extinguishing	:	None known.					
	Specific fighting	c hazards during fire-	:	Exposure to comb	pustion products may be a hazard to health.				
	Hazard ucts	ous combustion prod-	:	Carbon oxides Metal oxides Sulphur oxides					
	Specific ods	c extinguishing meth-	:	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					
	Special for firef	protective equipment ighters	:	e, wear self-contained breathing apparatus. ective equipment.					

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6. ACCII	6. ACCIDENTAL RELEASE MEASURES								
Personal precautions, protec- tive equipment and emer- gency procedures		:	Follow safe handl	tective equipment. ing advice (see section 7) and personal pro- 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		:	tainer for disposal Avoid dispersal of with compressed Dust deposits sho es, as these may leased into the att Local or national to posal of this mate employed in the co mine which regula Sections 13 and 1	f dust in the air (i.e., clearing dust surfaces					

7. HANDLING AND STORAGE

Technical measures	:	Static electricity may accumulate and ignite suspended dust causing an explosion. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Local/Total ventilation Advice on safe handling		Use only with adequate ventilation. Do not breathe dust, fume, gas, mist, vapours or spray. Do not swallow. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as- sessment Minimize dust generation and accumulation. Keep container closed when not in use. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage	:	Keep in properly labelled containers. Store in accordance with the particular national regulations.
Materials to avoid	:	Do not store with the following product types: Strong oxidizing agents



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
White mineral oil (petroleum)	8042-47-5	TWA (Mist)	5 mg/m3	IN OEL
		STEL (Mist)	10 mg/m3	IN OEL
		TWA (Inhal- able particu- late matter)	5 mg/m3	ACGIH
Diclazuril	101831-37-2	TWA	30 µg/m3 (OEB 3)	Internal
		Wipe limit	300 µg/100 cm2	Internal

Engineering measures	:	All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face contain- ment devices). Minimize open handling.
Personal protective equipme	ent	
Respiratory protection	:	If adequate local exhaust ventilation is not available or expo- sure assessment demonstrates exposures outside the rec- ommended guidelines, use respiratory protection.
Filter type Hand protection	:	Combined particulates and organic vapour type
Material	:	Chemical-resistant gloves
Remarks Eye protection	:	Consider double gloving. 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	:	Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.
Hygiene measures	:	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. Wash contaminated clothing before re-use. The effective operation of a facility should include review of



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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	:	pellets
Colour	:	green-brown
Odour	:	No data available
Odour 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	:	Not applicable
Flammability (solid, gas)	:	May form explosive dust-air mixture during processing, han- dling or other means.
Flammability (liquids)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	No data available
Density	:	No data available
Solubility(ies) Water solubility	:	No data available
Partition coefficient: n- octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		



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Vi	iscosity, kinematic	:	Not applicable				
Explo	osive properties	:	Not explosive				
Oxidi	zing properties		The substance	or mixture is not classified as oxidizing.			
			No data availab	-			
	cular weight	•	INU UALA AVAIIAD				
	cle characteristics cle size	:	No data availab	le			
0. STAB		(
	tivity nical stability ibility of hazardous reac-		Stable under no May form explo dling or other m	sive dust-air mixture during processing, han-			
Conc	litions to avoid	:	Heat, flames an				
Haza	Incompatible materials Hazardous decomposition products		Avoid dust formation.Oxidizing agentsNo hazardous decomposition products are known.				
1. TOXIC		ΓΙΟΙ	N				
	Information on likely routes of exposure		Inhalation Skin contact Ingestion Eye contact				
	e toxicity						
	lassified based on availa	ble	information.				
	ponents:						
	e mineral oil (petroleun e oral toxicity	n): :	LD50 (Rat): > 5,0	000 mg/kg			
Acute	e inhalation toxicity	:	 LC50 (Rat): > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhala tion toxicity 				
Acute	e dermal toxicity	:	: LD50 (Rabbit): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity				
Dicla	ızuril:						



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			LD50 (Mouse): > \$	5,000 mg/kg
			LD50 (Dog): > 5,0	00 mg/kg
Ac	ute inhalation toxicity	:	LC50 (Rat): > 2.24	4 mg/l
Ac	ute dermal toxicity	:	LD50 (Rabbit): > 4	1,000 mg/kg
	eute toxicity (other routes of ministration)	:	Application Route	
-	in corrosion/irritation ot classified based on availa	ble	information.	
<u>Cc</u>	omponents:			
W	hite mineral oil (petroleum	ı):		
	pecies psult	:	Rabbit No skin irritation	
	clazuril: emarks	:	Not classified due	to lack of data.
	rious eye damage/eye irri ot classified based on availa			
<u>Cc</u>	omponents:			
W	hite mineral oil (petroleum	ı):		
	pecies esult	:	Rabbit No eye irritation	
Di	clazuril:			
Re	emarks	:	Not classified due	to lack of data.
Re	espiratory or skin sensitis	atio	n	
-	t in sensitisation It classified based on availa	ble	information.	
	espiratory sensitisation ot classified based on availa	ble	information.	
<u>Co</u>	omponents:			
Te Ex Sp	hite mineral oil (petroleum est Type posure routes pecies esult	i): : : :	Buehler Test Skin contact Guinea pig negative	



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Dicla Rema		:	Not classified d	ue to lack of data.	
	n cell mutagenicity lassified based on av	ailable	information.		
<u>Com</u>	ponents:				
White	e mineral oil (petrole	eum):			
Geno	toxicity in vitro	:	Test Type: In vi Result: negative	tro mammalian cell gene mutation test	
Geno	toxicity in vivo	:	Test Type: Mammalian erythrocyte micronucleus test (in viv cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Method: OECD Test Guideline 474 Result: negative Remarks: Based on data from similar materials		
Dicla	zuril:				
Geno	Genotoxicity in vitro		Test Type: Back Result: negative	erial reverse mutation assay (AMES)	
				tro mammalian cell gene mutation test ouse lymphoma cells e	
			Test Type: unso Test system: ra Result: negative		
				omosomal aberration uman lymphocytes	
Geno	Genotoxicity in vivo		Test Type: Micr Species: Mouse Cell type: Bone Result: negative	e marrow	
			Test Type: Sex- anogaster (in vi Result: negative		
			Test Type: dom Species: Mouse Result: negative		

Carcinogenicity

Not classified based on available information.

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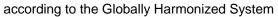


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Co	mponents:			
	nite mineral oil (petrole	um):		
	ecies	:	Rat	
Ap	plication Route	:	Ingestion	
	posure time sult	:	24 Months negative	
Die	clazuril:			
	ecies	:	Mouse	
	plication Route posure time	:	Oral 25 Months	
	DAEL	:	3 mg/kg body v	veight
	AEL	:	11 mg/kg body	
Re	sult	:	negative	
	ecies	:	Rat	
	plication Route	:	Oral	
	posure time DAEL	:	28 Months 4 mg/kg body v	veight
	AEL	÷	15 mg/kg body	
Re	sult	:	negative	
No	productive toxicity t classified based on ava mponents:	ailable	information.	
	nite mineral oil (petrole ects on fertility	umj.	Test Type: One	e-generation reproduction toxicity study
L11	eets on rentinty	•	Species: Rat	-generation reproduction toxicity study
			Application Ro	ute: Skin contact
			Result: negativ	e
	ects on foetal develop-	:		oryo-foetal development
me	ent		Species: Rat Application Rot	ite: Indection
			Result: negativ	
D:	clazuril:			
	ects on fertility		Test Type: Two	p-generation study
L11	ects off fertility	•	Species: Rat	-generation study
			General Toxicit	y - Parent: NOAEL: 5 mg/kg body weight
				c Development: LOAEL: 20 mg/kg body weight
				duced offspring weight gain rnal toxicity observed.
	, ,			
	ects on foetal develop-	:	Test Type: Dev	
me	71 IL		Species: Rabbi Application Rou	
			Developmental	Toxicity: NOAEL: 80 mg/kg body weight
			Embryo-foetal	oxicity: LOAEL: 320 mg/kg body weight



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sion	Revision Date: 28.09.2024	SDS Number: 6490734-00010	Date of last issue: 30.09.2023 Date of first issue: 01.10.2020
		Symptoms: Ear tions / resorptio	ly Resorptions / resorption rate, Late Resorp n rate
		Test Type: Dev	elopment
		Species: Rat	
			te: Oral / Maternal: LOAEL: 20 mg/kg body weight Toxicity: NOAEL: 5 mg/kg body weight
Repro sessm	ductive toxicity - As- nent	: Suspected of da	amaging the unborn child.
STOT	- single exposure		
Not cl	assified based on avai	lable information.	
sтот	- repeated exposure		
	assified based on avai		
Comp	oonents:		
Dicla	zuril:		
Targe	t Organs	: Liver, Lungs, Ly	mph nodes
Asses	sment	: May cause dam exposure.	age to organs through prolonged or repeate
Repe	ated dose toxicity		
<u>Comp</u>	oonents:		
	mineral oil (petroleu	ım):	
Speci		: Rat	
	L ation Route	: 160 mg/kg : Ingestion	
	sure time	: 90 Days	
Speci		: Rat	
LOAE	—	$\therefore >= 1 \text{ mg/l}$	
	ation Route	: inhalation (dust : 4 Weeks	mist/tume)
Metho		: OECD Test Gui	deline 412
Dicla			
Speci		: Rat	
NOAE		: 6 mg/kg	
		: 74 mg/kg : Oral	
	ation Route sure time	: 12 Months	
	t Organs	: Liver, Lungs, Ly	mph nodes
Speci	es	: Rat	
NOAE	EL	: 4 mg/kg	
LOAE		: 69 mg/kg	
	ation Route	: Oral	
	sure time	: 3 Months	





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	Target	Organs	:	Liver	
	Species NOAEL LOAEL Applica Exposu Target (tion Route re time	:	Mouse 30 mg/kg 60 mg/kg Oral 3 Months Liver	
	Species NOAEL LOAEL Exposu		:	Dog 20 mg/kg 80 mg/kg 12 Months	
	•	t ion toxicity ssified based on availa	hle	information	
		ence with human exp			
	Compo	•			
	Diclazu	ıril:			
	Ingestic	on	:	Symptoms: Diarrh	oea
12. E	COLO	GICAL INFORMATION	١		
	Ecotox	icity			
	Compo	onents:			
,	White r	nineral oil (petroleum	า):		
	Toxicity		:	LC50 (Oncorhync Exposure time: 96 Method: OECD Te	
		to daphnia and other invertebrates	:	EC50 (Daphnia m Exposure time: 48 Method: OECD Te	
	Toxicity plants	to algae/aquatic	:	NOEC (Pseudoki mg/l Exposure time: 72 Method: OECD Te	
	Toxicity icity)	to fish (Chronic tox-	:	NOEC: 1,000 mg/ Exposure time: 28 Species: Oncorhy	
i		invertebrates (Chron-	:	NOEC: 1,000 mg/ Exposure time: 21 Species: Daphnia	

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Toxici	ity to fish	:	Exposure time: 96	acrochirus (Bluegill sunfish)): 0.58 mg/l 5 h city at the limit of solubility	
	Toxicity to daphnia and other aquatic invertebrates		EC50 (Daphnia magna (Water flea)): > 0.63 mg/l Exposure time: 48 h Remarks: No toxicity at the limit of solubility		
Toxici plants	ity to algae/aquatic	:	Exposure time: 72	um capricornutum (green algae)): > 1.1 mg/l 2 h city at the limit of solubility	
			Exposure time: 72	rum capricornutum (green algae)): 1.1 mg/l ? h city at the limit of solubility	
	ity to daphnia and other ic invertebrates (Chron- icity)	:		d magna (Water flea) city at the limit of solubility	
Persi	stence and degradabili	ity			
<u>Com</u>	oonents:				
	e mineral oil (petroleun egradability	ו): :	Result: Not readil Biodegradation: 3 Exposure time: 28	31 %	
Bioad	ccumulative potential				
Comp	oonents:				
Dicla : Bioac	zuril: cumulation	:	Species: Lepomis Bioconcentration	macrochirus (Bluegill sunfish) factor (BCF): 160	
	ion coefficient: n- ol/water	:	log Pow: 4.5 pH: 7		
	lity in soil ata available				
	r adverse effects ata available				
13. DISPO	SAL CONSIDERATION	IS			
-	osal methods e from residues	:		waste into sewer. ordance with local regulations.	



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Conta	aminated packaging	dling site for red	rs should be taken to an approved waste han- cycling or disposal. specified: Dispose of as unused product.			
14. TRAN	SPORT INFORMATIO	N				
Inter	national Regulations					
UNR [.] Not re	TDG egulated as a dangerou	us good				
	IATA-DGR Not regulated as a dangerous good					
	G-Code egulated as a dangerou	us good				
	sport in bulk accordin	-	S			
•	ial precautions for us	ser				

15. REGULATORY INFORMATION

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

The components of this product are reported in the following inventories:

AICS	:	not determined
DSL	:	not determined
IECSC	:	not determined

16. OTHER INFORMATION

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 Agen- cy, http://echa.europa.eu/		
Date format :		dd.mm.yyyy		
Full text of other abbreviation	ns			
ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)		
IN OEL	:	India. Permissible levels of certain chemical substances in work environment.		
ACGIH / TWA IN OEL / TWA IN OEL / STEL	:	8-hour, time-weighted average Time-Weighted Average Concentration (TWA) (8 hrs.) Short-term exposure Limit STEL (15 min)		

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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

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.

IN / EN