

Vers 2.3	ion	Revision Date: 28.09.2024		S Number: )93363-00007	Date of last issue: 22.11.2023 Date of first issue: 21.11.2022		
SEC	TION 1	. IDENTIFICATION					
	Produc	t identifier	:	Selenium (10%) Solid Formulation			
	Other n	neans of identification	:	Coopers Permat	race Selenium Pellets for Cattle (47640)		
	Manufa	acturer or supplier's o	detai	ils			
	Compa	ny	:	MSD			
	Addres	S	:	Rua Coronel Be Cruzeiro - Sao F	nto Soares, 530 Paulo - Brazil CEP 12730-340		
	Teleph	one	:	908-740-4000			
	Emerge	ency telephone	:	1-908-423-6000			
	E-mail	address	:	EHSDATASTEV	/ARD@msd.com		
	Recom	mended use of the c	hem	ical and restriction	ons on use		
		mended use tions on use	:	Veterinary produ Not applicable	ict		

#### **SECTION 2. HAZARDS IDENTIFICATION**

GHS Classification in accordance	ce with ABNT NBR 14725 Standard
Specific target organ toxicity - : repeated exposure	Category 2

#### GHS label elements in accordance with ABNT NBR 14725 Standard

Hazard pictograms	:	
Signal Word	:	Warning
Hazard Statements	:	H373 May cause damage to organs through prolonged or repeated exposure.
Precautionary Statements	:	<b>Response:</b> P314 Get medical advice/ attention if you feel unwell.

#### 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.



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#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

#### Components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
Selenium		STOT RE, 2 Aquatic Chronic, 4	>= 10 -< 20

#### 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. Get medical attention if symptoms occur.
In case of skin contact	:	In case of contact, immediately flush skin with soap and plenty of water.
		Get medical attention if symptoms occur.
In case of eye contact	:	If in eyes, rinse well with water.
		Get medical attention if irritation develops and persists.
If swallowed	:	If swallowed, DO NOT induce vomiting.
		Get medical attention if symptoms occur.
		Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and	:	May cause damage to organs through prolonged or repeated exposure.
delayed		Contact with dust can cause mechanical irritation or drying of the skin.
		Dust contact with 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 to physician	:	Treat symptomatically and supportively.
		· · · · ·

#### **SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	None known.
Specific hazards during fire fighting	:	Exposure to combustion products may be a hazard to health.
Hazardous combustion prod- ucts	:	Metal oxides
Specific extinguishing meth- ods	:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment.



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				Remove undama so. Evacuate area.	o cool unopened containers. ged containers from fire area if it is safe to do		
	for fire-	protective equipment fighters	•	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.			
SEC	TION 6	. ACCIDENTAL RELE	ASI	EMEASURES			
	tive equ	al precautions, protec- uipment and emer- procedures	:	Follow safe handl	tective equipment. ing advice (see section 7) and personal lent recommendations (see section 8).		
	Enviror	nmental precautions	:	Retain and dispos	akage or spillage if safe to do so. se of contaminated wash water. should be advised if significant spillages		
		ls and materials for ment and cleaning up	:	container for disp Avoid dispersal of with compressed Dust deposits sho surfaces, as these released into the Local or national disposal of this m employed in the of determine which in Sections 13 and 1	f dust in the air (i.e., clearing dust surfaces		

#### SECTION 7. HANDLING AND STORAGE

Technical measures	<ul> <li>Static electricity may accumulate and ignite suspended dust causing an explosion.</li> <li>Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.</li> </ul>
Local/Total ventilation Advice on safe handling	<ul> <li>Use only with adequate ventilation.</li> <li>Do not breathe dust, fume, gas, mist, vapors 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 assessment 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.</li> </ul>



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Condit	ne measures tions for safe storage	<ul> <li>environment.</li> <li>If exposure to of flushing system place.</li> <li>When using do Wash contamin The effective of engineering co appropriate de industrial hygie use of adminis</li> <li>Keep in proper Store in accord</li> </ul>	revent spills, waste and minimize release to the chemical is likely during typical use, provide eye ns and safety showers close to the working o not eat, drink or smoke. nated clothing before re-use. peration of a facility should include review of introls, proper personal protective equipment, gowning and decontamination procedures, ene monitoring, medical surveillance and the trative controls. Ity labeled containers. dance with the particular national regulations.
Materi	als to avoid	: Do not store w Strong oxidizin	ith the following product types: g agents

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis		
Selenium	7782-49-2	TWA	20 µg/m3 (OEB 3)	Internal		
		Wipe limit	200 µg/100 cm2	Internal		
		TWA	0,2 mg/m³ (selenium)	ACGIH		
Engineering measures	design and op protect produ Containment are required t the compoun- containment	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 containment devices). Minimize open handling.				
Personal protective equipme	nt					
Respiratory protection	exposure ass recommende	If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.				
Filter type Hand protection	: Particulates t	уре				
Material	: Chemical-res	Chemical-resistant gloves				
Remarks Eye protection	If the work en mists or aeros Wear a faces	plasses with side vironment or act sols, wear the ap hield or other full	shields or goggles. ivity involves dusty co propriate goggles. I face protection if the he face with dusts, m	ere is a		

#### Ingredients with workplace control parameters

### SAFETY DATA SHEET



# Selenium (10%) Solid Formulation

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	and body protection	:	task being perforr disposable suits) Use appropriate of contaminated close	arments should be used based upon the ned (e.g., sleevelets, apron, gauntlets, to avoid exposed skin surfaces. degowning techniques to remove potentially thing.
ECTION	9. PHYSICAL AND CHI	EMI		5
Physi	ical state	:	pellets	
Color		:	silver	
			gray	
Odor		:	No data available	9
Odor	Threshold	:	No data available	9
pН		:	No data available	9
Meltir	ng point/freezing point	:	No data available	9
Initial range	boiling point and boiling	:	No data available	9
Flash	point	:	Not applicable	
Evap	oration rate	:	Not applicable	
Flam	mability (solid, gas)	:	May form explos handling or othe	ive dust-air mixture during processing, means.
Flam	mability (liquids)	:	Not applicable	
	r explosion limit / Upper nability limit	:	No data available	9
	r explosion limit / Lower nability limit	:	No data available	9
Vapo	r pressure	:	Not applicable	
Relat	ive vapor density	:	Not applicable	
Relat	ive density	:	No data available	9
Dens	ity	:	No data available	9
	pility(ies) ater solubility	:	No data available	e
	ion coefficient: n-	:	Not applicable	
	ol/water gnition temperature	:	No data available	e



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Visc	omposition temperature osity /iscosity, kinematic	:	No data available Not applicable	9
Expl	osive properties	:	Not explosive	
	lizing properties ecular weight	:	The substance o	r mixture is not classified as oxidizing.
	icle characteristics icle size	:	No data available	e

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity Chemical stability Possibility of hazardous reac- tions	Not classified as a reactivity hazard. Stable under normal conditions. May form explosive dust-air mixture during process handling or other means. Can react with strong oxidizing agents.	ing,
Conditions to avoid	Heat, flames and sparks. Avoid dust formation.	
Incompatible materials	Oxidizing agents	
Hazardous decomposition products	No hazardous decomposition products are known.	

#### SECTION 11. TOXICOLOGICAL INFORMATION

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

#### Acute toxicity

Not classified based on available information.

#### Components:

Sel	en	iu	m:
00.	····		

Acute oral toxicity	:	LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 (Rat): > 5,67 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OPPTS 870.1300

#### Skin corrosion/irritation

Not classified based on available information.

### SAFETY DATA SHEET



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	ous eye damage/eye irr lassified based on availa			
Resp	iratory or skin sensitiz	atic	on	
_	sensitization lassified based on availa	able	information.	
•	<b>iratory sensitization</b> lassified based on availa	able	information.	
Com	ponents:			
Seler	nium:			
Test	Type es of exposure ies od It	· · ·	Local lymph nod Skin contact Mouse OECD Test Guid negative Based on data fi	
-				
	n cell mutagenicity	hla	information	
	lassified based on availa	apie	information.	
Com	ponents:			
<b>Seler</b> Geno	nium: otoxicity in vitro	:		erial reverse mutation assay (AMES Test Guideline 471
	<b>inogenicity</b> lassified based on availa	hla	information	
		IDIE		
-	oductive toxicity lassified based on availa	hlo	information	
	ponents:			
Seler Effect	nium: ts on fertility	:	Species: Rat Application Rout Result: negative	

Not classified based on available information.





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STO	T-repeated exposure		
May	cause damage to orga	ans through prolonged o	or repeated exposure.
<u>Com</u>	ponents:		
Selei	nium:		
Asse	ssment	: May cause dam	age to organs through prolonged or repeated
Rema	arka	exposure.	and as regional regulation
Rema	diks	. Dased on hallor	nal or regional regulation.
Aspi	ration toxicity		
-	lassified based on av	ailable information.	
SECTION	12. ECOLOGICAL II		
02011011			
Ecot	oxicity		
<u>Com</u>	ponents:		
Selei	nium:		
Τοχία	to fish	· I C50 (Oncorhy	nchus mykiss (rainbow trout)): $> 0.0262 \text{ mg/l}$

Selenium:		
Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 0,0262 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 203 Remarks: No toxicity at the limit of solubility.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 0,1603 mg/l Exposure time: 48 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 202 Remarks: No toxicity at the limit of solubility.
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (algae)): > 0,00173 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 201
Toxicity to fish (Chronic tox- icity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): >= 0,00157 mg/l Exposure time: 28 d Test substance: Water Accommodated Fraction Remarks: No toxicity at the limit of solubility.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): >= 0,00342 mg/l Exposure time: 21 d Test substance: Water Accommodated Fraction Method: OECD Test Guideline 211 Remarks: No toxicity at the limit of solubility.
Toxicity to microorganisms	:	EC50 (activated sludge): > 100 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: Based on data from similar materials





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	oxicology Assessment nic aquatic toxicity	: May cause long	g lasting harmful effects to aquatic life. Id on national or regional regulation.
	stence and degradat	ility	
	ccumulative potentia	l	
	l <b>ity in soil</b> ata available		
• • • • •	r <b>adverse effects</b> ata available		
SECTION	13. DISPOSAL CONS	DERATIONS	
-	osal methods e from residues		of waste into sewer.

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.

#### **Domestic regulation**

**ANTT** Not regulated as a dangerous good

# Special precautions for user

Not applicable

#### SECTION 15. REGULATORY INFORMATION

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

National List of Carcinogenic Agents for Humans - : Not applicable



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	(LINAC	CH)			
	Brazil. Police	List of chemicals contr	olle	d by the Federal	: Not applicable
	The ing AICS	gredients of this proc	duct :	are reported in the not determined	ne following inventories:
	DSL		:	not determined	
	IECSC		:	not determined	
SEC	SECTION 16. OTHER INFORMATION				
	Revisio Date fo	on Date ormat	:	28.09.2024 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/

#### Full text of other abbreviations

ACGIH :	ι	JSA. ACGIH Threshold Limit Values (TL\	/)
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ACGIH / TWA

8-hour, time-weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation: DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Tempera-



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ture; 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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