

Vers 4.1	sion	Revision Date: 30.09.2023		0S Number: 34177-00009	Date of last issue: 04.04.2023 Date of first issue: 02.12.2020
SEC		1: Identification of t	he	substance/mixt	ure and of the company/undertaking
1.1	<b>Product</b> Trade r	t <b>identifier</b> name	:	Fenbendazole (20	0%) Type A Formulation
1.2	Use of	<b>it identified uses of tl</b> the Sub- Mixture	ne s :		ure and uses advised against at
	Recom on use	mended restrictions	:	Not applicable	
1.3	Details	of the supplier of the	saf	ety data sheet	
	Compa		:	MSD 20 Spartan Road 1619 Spartan, So	outh Africa
	Telepho	one	:	+27119239300	
		address of person sible for the SDS	:	EHSDATASTEW	ARD@msd.com

### 1.4 Emergency telephone number

+1-908-423-6000

### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

### Classification (REGULATION (EC) No 1272/2008)

Reproductive toxicity, Category 2

Specific target organ toxicity - repeated exposure, Category 2 Short-term (acute) aquatic hazard, Category 1 Long-term (chronic) aquatic hazard, Category 1

2.2 Label elements

H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child. H373: May cause damage to organs through prolonged or repeated exposure. H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

### Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms



Signal word



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Hazar	d statements	ing the unborn chi H373 May cause repeated exposure	e damage to organs through prolonged or
Preca	utionary statements	P260 Do not bre P273 Avoid rele	ase to the environment. ective gloves/ protective clothing/ eye protec-
		<b>Response:</b> P308 + P313 IF attention. P391 Collect sp	exposed or concerned: Get medical advice/ illage.

Hazardous components which must be listed on the label: fenbendazole

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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.

### **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
fenbendazole	43210-67-9 256-145-7	Repr. 2; H361fd STOT RE 2; H373 (Liver, Stomach, Nervous system, Lymph nodes) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 10	>= 20 - < 25



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For explanation of abbreviations see section 16.

SECTION 4: First aid measures					
4.1 Description of first aid measu	ires	6			
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.			
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).			
If inhaled	:	If inhaled, remove to fresh air. 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	:	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. Rinse mouth thoroughly with water.			
4.2 Most important symptoms an	nd e	ffects, both acute and delayed			
Risks	:	Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.			
		Contact with dust can cause mechanical irritation or drying of the skin. Dust contact with the eyes can lead to mechanical irritation.			
4.3 Indication of any immediate n	nec	lical attention and special treatment needed			
Treatment	:	Treat symptomatically and supportively.			
SECTION 5: Firefighting meas	sure	es			
5.1 Extinguishing media					
Suitable extinguishing media	:	Water spray Alcohol-resistant foam			



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			Carbon dioxide (( Dry chemical	CO2)
Un: me	suitable extinguishing dia	:	None known.	
5.2 Spe	cial hazards arising from	the	e substance or mi	xture
	Specific hazards during fire- fighting		concentrations, a potential dust exp	dust; fine dust dispersed in air in sufficient nd in the presence of an ignition source is a plosion hazard. bustion products may be a hazard to health.
Ha: uct	zardous combustion prod- S	:	Carbon oxides Nitrogen oxides ( Sulphur oxides Silicon oxides Metal oxides	NOx)
5.3 Adv	ice for firefighters			
	ecial protective equipment firefighters	:		e, wear self-contained breathing apparatus. tective equipment.
Spe ods	ecific extinguishing meth-	:	cumstances and Use water spray	g measures that are appropriate to local cir- the surrounding environment. to cool unopened containers. ged containers from fire area if it is safe to do

6.1 Personal precautions, protectiv	ve equipment and emergency procedures
Personal precautions :	Use personal protective equipment. Follow safe handling advice (see section 7) and personal pro- tective equipment recommendations (see section 8).
6.2 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.
6.3 Methods and material for conta	ainment and cleaning up
Methods for cleaning up :	<ul> <li>Sweep up or vacuum up spillage and collect in suitable container for disposal.</li> <li>Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).</li> <li>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.</li> </ul>



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		posal of this ma employed in the mine which reg Sections 13 and	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- ulations are applicable. d 15 of this SDS provide information regarding national requirements.
	nce to other sections ns: 7, 8, 11, 12 and 13		
SECTION	7: Handling and st	orage	
7.1 Precau	utions for safe handling	ng	
	nical measures	: Static electricity causing an exp Provide adequa	r may accumulate and ignite suspended dust losion. ate precautions, such as electrical grounding r inert atmospheres.
	Total ventilation e on safe handling	<ul> <li>Use only with a</li> <li>Do not breathe</li> <li>Do not swallow</li> <li>Avoid contact w</li> <li>Avoid prolonge</li> <li>Handle in accord</li> <li>practice, based</li> <li>sessment</li> <li>Minimize dust g</li> <li>Keep container</li> <li>Keep away from</li> <li>Take precaution</li> <li>Take care to pr</li> </ul>	dequate ventilation. dust.
Hygie	ne measures	flushing system place. When us nated clothing b The effective op engineering con appropriate deg	peration of a facility should include review of ntrols, proper personal protective equipment, gowning and decontamination procedures, ne monitoring, medical surveillance and the
7.2 Condit	tions for safe storage	, including any inco	mpatibilities
	rements for storage and containers		ly labelled containers. Store locked up. Store in h the particular national regulations.
Advic	e on common storage	: Do not store wi Strong oxidizing	th the following product types: g agents
7.3 Specif	ic end use(s)		
-	fic use(s)	: No data availat	ble



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### **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
fenbendazole	43210-67-9	TWA	100 µg/m3 (OEB 2)	Internal

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health ef- fects	Value
Calcium carbonate	Workers	Inhalation	Long-term systemic effects	6,36 mg/m3
	Consumers	Ingestion	Acute systemic ef- fects	6,1 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	1,06 mg/m3
	Consumers	Ingestion	Long-term systemic effects	6,1 mg/kg bw/day

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
fenbendazole		0,0001 mg/l
Calcium carbonate	Sewage treatment plant	100 mg/l

#### 8.2 Exposure controls

### **Engineering 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.

#### Personal protective equipment

Eye/face protection	:	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.
Material	:	Chemical-resistant gloves
Skin and body protection Respiratory protection	:	Work uniform or laboratory coat. If adequate local exhaust ventilation is not available or expo- sure assessment demonstrates exposures outside the rec- ommended guidelines, use respiratory protection.
Filter type	:	Combined particulates and organic vapour type (A-P)

### **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Appearance

: powder



Colour       :       in a biling bili	Vers 4.1	sion	Revision Date: 30.09.2023		S Number: 4177-00009	Date of last issue: 04.04.2023 Date of first issue: 02.12.2020
Melting point/freezing point       :       No data available         Initial boiling point and boiling       :       No data available         range       Flash point       :       Not applicable         Evaporation rate       :       Not applicable         Flammability (solid, gas)       :       No data available         Flammability (solid, gas)       :       No data available         flammability (solid, gas)       :       No data available         flammability limit       :       No data available         flammability limit       :       No data available         flammability limit       :       No data available         Vapour pressure       :       No data available         Relative density       :       No data available         Density       :       No data available         Solubility(ies)       :       No data available         Vater solubility       :       No data available         Partition coefficient: n- cctano/water       :       No data available         Viscosity, kinematic       :       No data available         Viscosity, kinematic       :       Not applicable         Viscosity, kinematic       :       Not applicable <tr< td=""><td></td><td>Odour</td><td>Threshold</td><td>:</td><td>to light brown characteristic</td><td>9</td></tr<>		Odour	Threshold	:	to light brown characteristic	9
Initial boiling point and boiling range:No data availableInitial boiling point and boiling range:Not applicableEvaporation rate:Not applicableEvaporation rate:May form explosive dust-air mixture during processing, han- dling or other means.Upper explosion limit / Upper flammability limit:No data availableLower explosion limit / Lower flammability limit:No data availableLower explosion limit / Lower flammability limit:No data availableVapour pressure::Not applicableRelative vapour density:Not applicableRelative density:No data availableDensity:No data availableSolubility(ies):No data availableVater solubility:No data availablePartition coefficient: n- octanol/water:No data availableAuto-ignition temperature:No data availableViscosity Viscosity, kinematic:Not applicableViscosity, kinematic:Not applicableOxidizing properties:Not applicableOxidizing properties:Not applicableDecomposition temperature:Not applicableViscosity Viscosity, kinematic:Not applicableDecomporties:Not applicableOxidizing properties:Not applicableDecomposition temperature:Not applicableDecomporties::O		рН		:	No data available	9
range Flash point:Not applicableEvaporation rate:Not applicableEvaporation rate:May form explosive dust-air mixture during processing, han- dling or other means.Upper explosion limit / Upper flammability limit:No data availableLower explosion limit / Lower flammability limit:No data availableLower explosion limit / Lower flammability limit:No data availableVapour pressure:Not applicableRelative vapour density:No data availableRelative density:No data availableDensity:No data availableSolubility(ies):No data availablePartition coefficient: n- octanol/water Auto-ignition temperature:No data availableDecomposition temperature viscosity, kinematic:Not applicableViscosity viscosity, kinematic:Not applicableOxidizing properties:Not applicableDecomposition temperature viscosity:Not applicableOxidizing properties:Not applicableMater:Not applicable <t< td=""><td></td><td>Melting</td><td>point/freezing point</td><td>:</td><td>No data available</td><td>9</td></t<>		Melting	point/freezing point	:	No data available	9
Flash point       :       Not applicable         Evaporation rate       :       Not applicable         Flammability (solid, gas)       :       May form explosive dust-air mixture during processing, han- ding or other means.         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       :       Not applicable         Density       :       Not applicable         Solubility(ies)       :       No data available         Water solubility       :       No data available         Partition coefficient: n- octano/Water       :       No data available         Viscosity       :       No data available         Viscosity, kinematic       :       :       No data available         Viscosity, kinematic       :       No data available         Viscosity, kinematic       :       No data available         Viscosity, kinematic       :       Not applicable         Oxidizing properties       :       Not applicable         Oxidizing properties       :			oiling point and boiling	:	No data available	9
Flammability (solid, gas)       :       May form explosive dust-air mixture during processing, han- ding or other means.         Upper explosion limit / Upper       :       No data available         flammability limit       :       No data available         Lower explosion limit / Lower       :       No data available         flammability limit       :       No data available         Vapour pressure       :       Not applicable         Relative vapour density       :       No data available         Density       :       No data available         Density       :       No data available         Solubility(ies)       :       No data available         Vater solubility       :       No data available         Partition coefficient: n- octanol/water       :       No data available         Auto-ignition temperature       :       No data available         Decomposition temperature       :       No data available         Viscosity       :       Not applicable         Viscosity       :       Not applicable         Oxidizing properties       :       Not applicable         Oxidizing properties       :       Not explosive         Oxidizing properties       :       Not explosive <tr< td=""><td></td><td></td><td>oint</td><td>:</td><td>Not applicable</td><td></td></tr<>			oint	:	Not applicable	
Upper explosion limit / Upper flammability limitNo data availableLower explosion limit / Lower flammability limitNo data availableLower explosion limit / Lower flammability limitNo data availableVapour pressureImage: Not applicableRelative vapour densityNo data availableRelative densityImage: Not applicableRelative densityNo data availableDensityNo data availableSolubility(ies)No data availableWater solubilityNo data availablePartition coefficient: n- octanol/waterNo data availableAuto-ignition temperatureNo data availableDecomposition temperatureNo data availableViscosity Viscosity, kinematicNot applicableExplosive propertiesNot applicableOxidizing propertiesNot applicableFlammability (liquids)Image: Not applicablePartition coefficient: n- octanol/waterNot applicableDecomposition temperatureImage: Not applicableViscosity ViscosityImage: Not applicableCoxidizing propertiesImage: Not applicableAuto-ignition temperatureImage: Not applicableDecomposition temperatureImage: Not applicableZoyosity ViscosityImage: Not applicableDecomposition temperatureImage: Not applicableDecomposition temperatureImage: Not applicableDecomposition temperatureImage: Not applicableDecomposition temperatureImage: Not applicableDecomposition tempera		Evapor	ation rate	:	Not applicable	
flammability limit		Flamma	ability (solid, gas)	:		<b>0</b> 1 <b>0</b> 1
flammability limit       Vapour pressure       :       Not applicable         Relative vapour density       :       Not applicable         Relative density       :       No data available         Density       :       No data available         Density       :       No data available         Solubility(ies)       :       No data available         Vater solubility       :       No data available         Partition coefficient: n-       :       No data available         octanol/water       :       No data available         Auto-ignition temperature       :       No data available         Viscosity       :       No data available         Viscosity, kinematic       :       No data available         Oxidizing properties       :       Not applicable         Oxidizing properties       :       Not applicable         Flammability (liquids)       :       Not applicable         Molecular weight       :       Not applicable </td <td></td> <td></td> <td></td> <td>:</td> <td>No data available</td> <td>9</td>				:	No data available	9
Relative vapour density:Not applicableRelative density:No data availableDensity:No data availableDensity:No data availableSolubility(ies):No data availableWater solubility:No data availablePartition coefficient: n- octanol/water:Not applicableAuto-ignition temperature:No data availableDecomposition temperature:No data availableViscosity Viscosity, kinematic:Not applicableZuto ignition temperature:Not applicableDecomposition temperature:Not applicableViscosity Viscosity:Not applicableExplosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.9.2 Other information:Not applicableFlammability (liquids):Not applicableMolecular weight:No data available				:	No data available	9
Relative density:No data availableDensity:No data availableDensity:No data availableSolubility(ies) Water solubility:No data availablePartition coefficient: n- octanol/water:No data availableAuto-ignition temperature:No data availableDecomposition temperature:No data availableDecomposition temperature:No data availableViscosity Viscosity, kinematic:Not applicableExplosive properties:Not applicableOxidizing properties:Not applicable9.2 Other information Flammability (liquids):Not applicableMolecular weight:Not applicable		Vapour	pressure	:	Not applicable	
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Solubility(ies) Water solubility : No data available Partition coefficient: n- octanol/water Auto-ignition temperature : No data available Decomposition temperature : No data available Viscosity Viscosity, kinematic : Not applicable Explosive properties : Not applicable is Not explosive Oxidizing properties : The substance or mixture is not classified as oxidizing. <b>9.2 Other information</b> Flammability (liquids) : Not applicable Molecular weight : Not applicable is Not applicable Not applicable		Relative	e density	:	No data available	9
Water solubility:No data availablePartition coefficient: n- octanol/water:Not applicableAuto-ignition temperature:No data availableDecomposition temperature:No data availableViscosity Viscosity, kinematic:Not applicableExplosive properties:Not applicableOxidizing properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.9.2 Other information Flammability (liquids):Not applicableMolecular weight:Not ata available		Density	,	:	No data available	9
Decomposition temperature       :       No data available         Viscosity       Viscosity, kinematic       :       Not applicable         Explosive properties       :       Not explosive         Oxidizing properties       :       The substance or mixture is not classified as oxidizing.         9.2 Other information       :       Not applicable         Flammability (liquids)       :       Not applicable         Molecular weight       :       No data available		Wat Partitio octanol	er solubility n coefficient: n- /water	:	Not applicable	
Viscosity Viscosity, kinematic:Not applicableExplosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.9.2 Other information Flammability (liquids):Not applicableMolecular weight:Not data available						
Viscosity, kinematic:Not applicableExplosive properties:Not explosiveOxidizing properties:The substance or mixture is not classified as oxidizing.9.2 Other information Flammability (liquids):Not applicableMolecular weight:Not data available				•		·
Oxidizing properties       :       The substance or mixture is not classified as oxidizing.         9.2 Other information       .         Flammability (liquids)       :       Not applicable         Molecular weight       :       No data available				:	Not applicable	
9.2 Other information       Flammability (liquids)       : Not applicable         Molecular weight       : No data available		Explosi	ve properties	:	Not explosive	
Flammability (liquids):Not applicableMolecular weight:No data available		Oxidizir	ng properties	:	The substance o	r mixture is not classified as oxidizing.
Molecular weight : No data available	9.2	Other in	formation			
		Flamma	ability (liquids)	:	Not applicable	
Particle size : No data available		Molecu	lar weight	:	No data available	9
		Particle	size	:	No data available	9



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SECTION	N 10: Stability and r	eactivity	
10.1 Read	tivity		
Not c	lassified as a reactivity	hazard.	
	nical stability e under normal conditi	ons.	
10.3 Poss	bility of hazardous r	eactions	
Haza	rdous reactions	dling or other	losive dust-air mixture during processing, han- means. h strong oxidizing agents.
10.4 Cond	ditions to avoid		
Cond	litions to avoid	: Heat, flames Avoid dust fo	
10.5 Inco	mpatible materials		
Mate	rials to avoid	: Oxidizing age	ents
10.6 Haza	rdous decompositio	n products	
No ha	azardous decompositic	n products are know	n.
SECTION	N 11: Toxicological	information	
	•		
11.1 Infor	mation on toxicologi	cal effects	
Inforr expos	nation on likely routes sure	of : Inhalation Skin contact Ingestion Eye contact	
Acut	e toxicity		
Note	localified based on eve	ilable information	

Not classified based on available information.

### Components:

### fenbendazole:

Acute oral toxicity	: L	_D50 (Rat): >	10.000 mg/kg
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LD50 (Mouse): > 10.000 mg/kg

### Skin corrosion/irritation

Not classified based on available information.

### Components:

#### fenbendazole:

Species	:	Rabbit
Result	:	No skin irritation

### SAFETY DATA SHEET



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Serio	us eye damage/eye	irritation			
Not classified based on available information.					
Comp	oonents:				
	ndazole:				
Specie		: Rabbit			
Result		: No eye irritation			
Respiratory or skin sensitisation					
Skin s	sensitisation				
Not cla	assified based on ava	ailable information.			
Respi	ratory sensitisation	1			
-	assified based on ava				
Germ	cell mutagenicity				
	assified based on ava	ailable information.			
<u>Comp</u>	oonents:				
fenbe	ndazole:				
Genot	toxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative			
		Test Type: DNA Repair Result: negative			
		Test Type: Chromosomal aberration Result: negative			
		Test Type: in vitro assay Test system: mouse lymphoma cells Metabolic activation: Metabolic activation Result: equivocal			
Carci	nogenicity				
Not cla	assified based on ava	ailable information.			
<u>Comp</u>	oonents:				
	ndazole:				
fenbe	86	: Mouse			
Specie					
Specie Applic	ation Route	: oral (feed)			
Specie Applic Expos	ation Route	: 2 Years			
Specie Applic	cation Route sure time EL				
Specie Applic Expos NOAE Result	cation Route sure time EL t	<ul> <li>2 Years</li> <li>405 mg/kg body weight</li> <li>negative</li> </ul>			
Specie Applic Expos NOAE Result	cation Route sure time EL t es	<ul> <li>2 Years</li> <li>405 mg/kg body weight</li> <li>negative</li> <li>Rat</li> </ul>			
Specie Applic Expos NOAE Result Specie Applic	cation Route sure time EL t	<ul> <li>2 Years</li> <li>405 mg/kg body weight</li> <li>negative</li> </ul>			
Specie Applic Expos NOAE Result Specie Applic	ation Route sure time L t es ation Route sure time	<ul> <li>2 Years</li> <li>405 mg/kg body weight</li> <li>negative</li> <li>Rat</li> <li>Oral</li> <li>2 Years</li> <li>5 mg/kg body weight</li> </ul>			
Specie Applic Expos NOAE Result Specie Applic Expos NOAE Result	eation Route Sure time EL t t es es cation Route Sure time EL	<ul> <li>2 Years</li> <li>405 mg/kg body weight</li> <li>negative</li> <li>Rat</li> <li>Oral</li> <li>2 Years</li> </ul>			



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Suspe		lity. Suspected of da	naging the unborn child.
<u>Comp</u>	onents:		
fenbe	ndazole:		
Effects	s on fertility	Species: Rat Application Ro General Toxici	ty - Parent: NOAEL: 15 mg/kg body weig L: 45 mg/kg body weight
Effects ment	s on foetal develop-	Result: Embry	female
		Species: Rabb Application Ro	ute: Oral I Toxicity: NOAEL: 25 mg/kg body weigh
		Species: Rabb Application Ro	
		Species: Rat Application Ro Developmenta	I Toxicity: NOAEL: 120 mg/kg body weig
Repro sessm	ductive toxicity - As- ent	: Some evidenc fertility, based	ects on foetal development e of adverse effects on sexual function a on animal experiments., Some evidence s on development, based on animal expe
	- single exposure assified based on avai	lable information.	
	- repeated exposure ause damage to organ		or repeated exposure.
Comp	onents:		

Exposure routes Target Organs Assessment	<ul> <li>Ingestion</li> <li>Liver, Stomach, Nervous system, Lymph nodes</li> <li>May cause damage to organs through prolonged or repeated</li> </ul>
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		exposure.	
Repe	ated dose toxicity		
Com	oonents:		
fenbe	endazole:		
Speci		: Rat	
LOAE		: 500 mg/kg	
	cation Route	: Oral	
	sure time et Organs	: 2 Weeks	
Tarye	a Organs	: Kidney, Live	
Speci		: Rat	
NOAE		: > 2.500 mg/ł	kg
	cation Route	: Oral	
Expos	sure time	: 30 Days	t advarage affects were reported
Reina	11K5	. NO SIGNINCAN	t adverse effects were reported
Speci	es	: Rat	
LOAE		: 1.600 mg/kg	1
	cation Route	: Oral	
	sure time	: 90 Days	
	et Organs	: Central nerve	ous system
Symp	otoms	: Tremors	
Speci	es	: Dog	
NOAE		: 4 mg/kg	
LOAE		: 8 mg/kg	
	sure time	: 6 Months	
Targe	et Organs	: Stomach, Ne	ervous system, Lymph nodes
Aspir	ation toxicity		
Not cl	assified based on av	ailable information.	
Com	oonents:		
fenbe	endazole:		
	piration toxicity class	ification	
Expe	rience with human e	exposure	
<u>Com</u>	oonents:		
fenbe	endazole:		
Inges		: Symptoms F	Rapid respiration, Salivation, anorexia, Diarrho
•			
CTION	12: Ecological in	formation	

Components:

fenbendazole:



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	Toxicity	y to fish	:	LC50 (Lepomis m Exposure time: 2	nacrochirus (Bluegill sunfish)): 0,009 mg/l 1 d
	Toxicity to daphnia and other aquatic invertebrates		:	Exposure time: 4	nagna (Water flea)): 0,0088 mg/l 8 h est Guideline 202
	M-Fact icity)	or (Acute aquatic tox-	:	100	
		y to daphnia and other invertebrates (Chron- ity)	:	NOEC: 0,00113 r Exposure time: 2 Species: Daphnia Method: OECD T	1 Days a magna (Water flea)
	M-Fact toxicity	or (Chronic aquatic )	:	10	
12.2		<b>tence and degradabil</b> a available	ity		
12.3	Bioaco	cumulative potential			
	<u>Compo</u>	onents:			
		n <b>dazole:</b> n coefficient: n- l/water	:	log Pow: 3,32	
12.4	Mobilit	ty in soil			
	Compo	onents:			
	Distribu	idazole: ution among environ- compartments	:	log Koc: 3,8 - 4,7 Method: FDA 3.0	
12.5	Result	s of PBT and vPvB as	sse	ssment	
	Produc	<u>ct:</u>			
	Assess	ment	:	to be either persis	nixture contains no components considered stent, bioaccumulative and toxic (PBT), or nd very bioaccumulative (vPvB) at levels of
12.6	Other	adverse effects			
	<u>Produc</u>	<u>ct:</u>			
	Endocr tial	ine disrupting poten-	:	ered to have ende REACH Article 57	ixture does not contain components consid- ocrine disrupting properties according to 7(f) or Commission Delegated regulation or Commission Regulation (EU) 2018/605 at higher.



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### **SECTION 13: Disposal considerations**

### 13.1 Waste treatment methods

Product	<ul> <li>Dispose of in accordance with local regulations. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities. Do not dispose of waste into sewer.</li> </ul>
Contaminated packaging	<ul> <li>Empty containers should be taken to an approved waste han- dling site for recycling or disposal.</li> <li>If not otherwise specified: Dispose of as unused product.</li> </ul>

### **SECTION 14: Transport information**

14.1 UN number					
ADN	:	UN 3077			
ADR	:	UN 3077			
RID	:	UN 3077	UN 3077		
IMDG	:	UN 3077			
ΙΑΤΑ	:	UN 3077			
14.2 UN proper shipping name					
ADN	:	ENVIRONMENTALLY N.O.S. (fenbendazole)	Y HAZARDOUS SUBSTANCE, SOLID,		
ADR	:	ENVIRONMENTALLY N.O.S. (fenbendazole)	Y HAZARDOUS SUBSTANCE, SOLID,		
RID	:	ENVIRONMENTALLY N.O.S. (fenbendazole)	Y HAZARDOUS SUBSTANCE, SOLID,		
IMDG	:	ENVIRONMENTALLY N.O.S. (fenbendazole)	Y HAZARDOUS SUBSTANCE, SOLID,		
ΙΑΤΑ	:	Environmentally hazardous substance, solid, n.o.s. (fenbendazole)			
14.3 Transport hazard class(es)					
		Class	Subsidiary risks		
ADN	:	9			
ADR	:	9			
RID	:	9			
IMDG	:	9			
ΙΑΤΑ	:	9			



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14.4	Packin	g group			
		g group cation Code Identification Number	:	III M7 90 9	
	Hazard Labels	g group cation Code Identification Number restriction code	:	III M7 90 9 (-)	
		g group cation Code Identification Number	:	III M7 90 9	
	IMDG Packing Labels EmS Co		:	III 9 F-A, S-F	
	aircraft)	g instruction (cargo	:	956 Y956 III Miscellaneous	
	IATA (F Packing ger airc Packing	Passenger) g instruction (passen- raft) g instruction (LQ) g group	:	956 Y956 III Miscellaneous	
14.5	Enviro	nmental hazards			
	ADR	mentally hazardous	:	yes	
	<b>RID</b> Environ	mentally hazardous mentally hazardous	:	yes	
	IMDG Marine	pollutant	:	yes	
	Environ	Passenger) mentally hazardous	:	yes	
	IATA (C Environ	Cargo) mentally hazardous	:	yes	



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### 14.6 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.

#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Remarks

: Not applicable for product as supplied.

### **SECTION 15: Regulatory information**

15.1 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

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information			
Other information :	Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.		
Full text of H-Statements			
H361fd :	Suspected of damaging fertility. Suspected of damaging the unborn child.		
H373 :	May cause damage to organs through prolonged or repeated exposure if swallowed.		
H400 :	Very toxic to aquatic life.		
H410 :	Very toxic to aquatic life with long lasting effects.		
Full text of other abbreviations	5		
Aquatic Acute :	Short-term (acute) aquatic hazard		
Aquatic Chronic :	Long-term (chronic) aquatic hazard		
Repr. :	Reproductive toxicity		
STOT RE :	Specific target organ toxicity - repeated exposure		
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland			

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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 as-



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sociated with x% growth rate response; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; 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

### 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/

Classification of the mixture:		
H361fd	Calculation method	
H373	Calculation method	
H400	Calculation method	
H410	Calculation method	
	H361fd H373 H400	

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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