according to the OSHA Hazard Communication Standard



# Fenbendazole (7%) Liquid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 04/06/2024
10.0	07/06/2024	26403-00029	Date of first issue: 10/29/2014

#### **SECTION 1. IDENTIFICATION**

Product name	:	Fenbendazole (7%) Liquid Formulation			
Manufacturer or supplier's o	deta	ails			
Company name of supplier Address		Merck & Co., Inc 126 E. Lincoln Avenue Rahway, New Jersey U.S.A. 07065			
Telephone Emergency telephone E-mail address	:	908-740-4000 1-908-423-6000 EHSDATASTEWARD@merck.com			
Recommended use of the chemical and restrictions on use					
Recommended use Restrictions on use	:	Veterinary product Not applicable			

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

GHS classification in accord 1910.1200)	lan	ce with the OSHA Hazard Communication Standard (29 CFR
Reproductive toxicity	:	Category 2
Specific target organ toxicity - repeated exposure (Oral)	:	Category 2 (Liver, Stomach, Nervous system, Lymph nodes)
GHS label elements		
Hazard pictograms	:	
Signal Word	:	Warning
Hazard Statements	:	H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. H373 May cause damage to organs (Liver, Stomach, Nervous system, Lymph nodes) through prolonged or repeated exposure if swallowed.
Precautionary Statements	:	Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe mist or vapors. P280 Wear protective gloves, protective clothing, eye protection and face protection.
		<b>Response:</b> P308 + P313 IF exposed or concerned: Get medical attention.
		Storage:

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P405 Store locked up.

**Disposal:** 

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

#### Other hazards

None known.

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

Substance / Mixture : Mixture

#### Components

Chemical name	CAS-No.	Concentration (% w/w)
fenbendazole	43210-67-9	>= 5 - < 10
Silicon, amorphous	112945-52-5	>= 1 - < 5
Benzyl alcohol	100-51-6	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

#### **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.
In case of skin contact	:	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. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	:	Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated
delayed		exposure if swallowed.
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)



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media Specif	able extinguishing ic hazards during fire	:	Dry chemical None known. Exposure to comb	pustion products may be a hazard to health.
	fighting Hazardous combustion prod- ucts		Carbon oxides Nitrogen oxides (I Sulfur oxides Metal oxides	NOx)
Specif ods	Specific extinguishing meth- ods		cumstances and t Use water spray t	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 protective equipment for fire-fighters		Evacuate area. In the event of fire Use personal prot	e, wear self-contained breathing apparatus. ective equipment.
SECTION	6. ACCIDENTAL RELE	ASI	E MEASURES	
tive eq	nal precautions, protec- uipment and emer- procedures	:		ective equipment. ing advice (see section 7) and personal ent recommendations (see section 8).
Enviro	nmental precautions	<ul> <li>Avoid release to the environment. Prevent further leakage or spillage if safe to do so Prevent spreading over a wide area (e.g., by cont oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant s cannot be contained.</li> </ul>		akage or spillage if safe to do so. g over a wide area (e.g., by containment or se of contaminated wash water. should be advised if significant spillages
	ds and materials for nment and cleaning up	:	For large spills, pr containment to ke can be pumped, s container. Clean up remainir absorbent. Local or national r disposal of this ma employed in the c determine which r Sections 13 and 1	a absorbent material. Tovide diking or other appropriate ep material from spreading. If diked material atore recovered material in appropriate ing materials from spill with suitable regulations may apply to releases and aterial, as well as those materials and items leanup of releases. You will need to regulations are applicable. 5 of this SDS provide information regarding tional requirements.

#### SECTION 7. HANDLING AND STORAGE

Technical measures	: See Engineering measures under EXPOSURE
	CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	: Use only with adequate ventilation.

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Advice on safe handling		Do not swallov Avoid contact Avoid prolong Handle in acco practice, base assessment	
Conditions for safe storage		Store locked u	•
Materials to avoid : Do no			dance with the particular national regulations. rith the following product types: ng agents

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

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
fenbendazole	43210-67-9	TWA	100 µg/m3 (OEB 2)	Internal
Silicon, amorphous	112945-52-5	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
		TWA	6 mg/m <sup>3</sup> (Silica)	NIOSH REL
Benzyl alcohol	100-51-6	TWA	10 ppm	US WEEL

#### Ingredients with workplace control parameters

Engineering measures : Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., dripless quick connections). All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Laboratory operations do not require special containment.

#### Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air

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		release, exp	pirator if there is any potential for uncontrolled osure levels are unknown, or any other e where air purifying respirators may not provide otection.
	protection aterial	: Chemical-re	sistant gloves
Eye p	Eye protection		glasses with side shields or goggles. nvironment or activity involves dusty conditions, osols, wear the appropriate goggles. shield or other full face protection if there is a direct contact to the face with dusts, mists, or
Skin and body protection Hygiene measures		: If exposure t eye flushing working plac When using Wash contar The effective engineering appropriate industrial hys	n or laboratory coat. o chemical is likely during typical use, provide systems and safety showers close to the e. do not eat, drink or smoke. minated clothing before re-use. e operation of a facility should include review of controls, proper personal protective equipment, degowning and decontamination procedures, giene monitoring, medical surveillance and the histrative controls.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	suspension
Color	:	white
Odor	:	characteristic
Odor Threshold	:	No data available
рН	:	6 - 8
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower	:	No data available

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flamm	ability limit			
Vapor	rpressure	:	No data available	9
Relati	ve vapor density	:	No data available	9
Relati	ve density	:	No data available	9
Densi	ty	:	No data available	9
	ility(ies) ater solubility	:	insoluble	
	on coefficient: n- ol/water	:	No data available	9
	gnition temperature	:	No data available	9
Decor	mposition temperature	:	No data available	9
Visco: Vis	sity scosity, kinematic	:	No data available	9
Explo	sive properties	:	Not explosive	
Oxidiz	zing properties	:	The substance o	r mixture is not classified as oxidizing.
Molec	cular weight	:	No data available	9
	le characteristics le size	:	No data available	9

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reac-	:	Can react with strong oxidizing agents.
tions		
Conditions to avoid	:	None known.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition		No hazardous decomposition products are known.
products		

#### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure Inhalation Skin contact Ingestion

Eye contact

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ssified based on ava	ailable information.	
onents:		
ndazole:		
oral toxicity	: LD50 (Rat): >	10,000 mg/kg
	LD50 (Mouse)	: > 10,000 mg/kg
۱, amorphous:		
-		5,000 mg/kg D Test Guideline 401 ed on data from similar materials
nhalation toxicity	tion toxicity	:: 4 h
dermal toxicity	: LD50 (Rabbit) Remarks: Bas	: > 5,000 mg/kg ed on data from similar materials
l alcohol:		
	: LD50 (Rat): 1,	620 mg/kg
nhalation toxicity	: LC50 (Rat): > Exposure time Test atmosphe Method: OECI	:: 4 h
orrosion/irritation		
	ailable information.	
onents:		
	: Rabbit	
	: No skin irritatio	on
ı, amorphous:		
S	: Rabbit	
	: OECD Test G	
ks	: No skin irritation : Based on data	on a from similar materials
l alcohol:		
	· Rahhit	
d	: OECD Test G	uideline 404
	onents: hdazole: brai toxicity h, amorphous: brai toxicity hhalation toxicity dermal toxicity halation toxicity halation toxicity halation toxicity halation toxicity halation toxicity halatohol: brai toxicity halation toxicity halation toxicity halatohol: based on ava onents: hdazole: based on ava onents: halatohol: based on ava based on ava halatohol: based on ava based on ava	Assified based on available information. onents: hdazole: brai toxicity : LD50 (Rat): > LD50 (Mouse) h, amorphous: brai toxicity : LD50 (Rat): > Method: OECI Remarks: Bas inhalation toxicity : LC50 (Rat): > Exposure time Test atmosphe Assessment: tion toxicity Remarks: Bas dermal toxicity : LD50 (Rat): 1, inhalation toxicity : LD50 (Rat): 2 Exposure time Test atmosphe Method: OECI orrosion/irritation tassified based on available information. onents: hdazole: is : Rabbit d : OECD Test G is : Rabbit d : OECD Test G is : Rabbit d : OECD Test G is : Rabbit d : No skin irritation h, amorphous: is : Rabbit d : OECD Test G is : Rabbit d : No skin irritation h, amorphous: is : Rabbit h : No skin irritation h : No skin irritation

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Result       x       No skin irritation         Serious eye damage/eye irritation         Not classified based on available information.         Components:         Species         Species         Setion, amorphous:         Species         Species         Result         Setion, amorphous:         Species         Species         Setion, amorphous:         Species         Species         Method         Method         Method         Method         Method         Species         Result         Result         Result         Method         Species         Result         Result         Species	Serious eye damage/eye irritation         Not classified based on available information.         Components:         fenbendazole:         Species       :         Result       :         No eye irritation         Silicon, amorphous:         Species       :         Species       :         Result       :         Method       :         OECD Test Guideline 405         Remarks       :         Species       :         Species       :         Species       :         Species       :         Species       :         Subott       :         Result       :         Species       :         Secies       :         Species       :         Stin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzy lalcohol:         Test Type       :         Subite based on available information.         Components:         Benzy lalcohol:         Cern cell	ersion ).0	Revision Date: 07/06/2024		S Number: 403-00029	Date of last issue: 04/06/2024 Date of first issue: 10/29/2014
Not classified based on available information. Components: Species : Rabbit Result : No eye irritation Silicon, amorphous: Species : Rabbit Result : No eye irritation Method : OECD Test Guideline 405 Remarks : Rabbit Result : Result : Rabbit Result : Result : Rabbit Result : Result : Rabbit Result : Result : Irritation to eyes, reversing within 21 days Method : OECD Test Guideline 405 Respiratory or skin sensitization Skin sensitization Not classified based on available information. Respiratory sensitization Not classified based on available information. Respiratory sensitization Not classified based on available information. Respiratory sensitization Not classified based on available information. Components: Benzyl alcohol: Test Type : Maximization Test Routes of exposure : Skin contact Species : : Guinea pig Method : : OECD Test Guideline 406 Result : negative Germ cell mutagenicity Not classified based on available information. Components: Encyl alcohol: Test Type : : Skin contact Species : : : : oegative Germ cell mutagenicity Not classified based on available information. Components: Encyl : : : : : : : : : : : : : : : : : : :	Not classified based on available information. Components: fenbendazole: Species : Rabbit Result : No eye irritation Silicon, amorphous: Species : Rabbit Result : OCECD Test Guideline 405 Remarks : Based on data from similar materials Benzyl alcohol: Species : Rabbit Result : Pritation to eyes, reversing within 21 days Method : OECD Test Guideline 405 Respiratory or skin sensitization Skin sensitization Not classified based on available information. Respiratory sensitization Not classified based on available information. Components: Benzyl alcohol: Species : Skin contact Species : Guinea pig Method : OECD Test Guideline 406 Result : negative Germ cell mutagenicity Not classified based on available information. Components: Germ cell mutagenicity Not classified based on available information. Components: Germ cell mutagenicity Not classified based on available information. Components: Gern cell mutagenicity Not classified based on available information. Components: Gern cell mutagenicity Test Type: DNA Repair Result: negative Test Type: Chromosomal aberration	Resu	lt	:	No skin irritatio	n
Components:         Indext State         Species       Rabbit         Result       No eye irritation         Species       Rabbit         Result       No eye irritation         Species       Rabbit         Result       No eye irritation         Method       DECD Test Guideline 405         Remarks       Based on data from similar materials         Benzyl alcohol:       Eased on data from similar materials         Species       Remarks         Species       Result         Method       Tiritation to eyes, reversing within 21 days         Method       OECD Test Guideline 405         Result       Components         Not classified based on available information.       Respiratory or skin sensitization         Not classified based on available information.       Respiratory sensitization         Not classified based on available information.       Components:         Benzyl alcohol:       Est Type         Method       Components:         Method       OECD Test Guideline 406         Result       Components:         Method       Components:         Method       Components:         Genotoxicity in vitro       Test Type: Bacterial reverse mut	Components:         fenbendazole:         Species       : Rabbit         Result       : No eye irritation         Silicon, amorphous:         Species       : Rabbit         Result       : No eye irritation         Method       : OECD Test Guideline 405         Remarks       : Based on data from similar materials         Benzyl alcohol:       :         Species       : Rabbit         Result       : Irritation to eyes, reversing within 21 days         Method       : OECD Test Guideline 405         Result       : Irritation to eyes, reversing within 21 days         Method       : OECD Test Guideline 405         Respiratory or skin sensitization       Not classified based on available information.         Respiratory sensitization       Not classified based on available information.         Not classified based on available information.       Components:         Benzyl alcohol:       :         Test Type       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Species       : Guinea pig         Method       : negative         Germ cell mutagenicity       : No tclassified based on available information.	Serio	us eye damage/eye	irritatio	on	
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Result       in No eye irritation         Method       in OECD Test Guideline 405         Remarks       in Based on data from similar materials         Benzyl alcohol:       is Based on data from similar materials         Species       in Rabbit         Result       in Irritation to eyes, reversing within 21 days         Method       in OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization         Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       in Maximization Test         Routes of exposure       in Skin contact         Species       in Guinea pig         Method       in OECD Test Guideline 406         Result       in egative         Germ cell mutagenicity         Not classified based on available information.         Components:         Germ cell mutagenicity         Not classified based on available information.         Components:         Gern cell mutagenicity         Not classified based on available information.         Components:	Result       Image: No eye irritation         Method       Image: OECD Test Guideline 405         Remarks       Image: Based on data from similar materials         Benzyl alcohol:       Image: Based on data from similar materials         Species       Image: Rabbit         Result       Image: Image: Provide the test of test o	Silico	on, amorphous:			
Method       :       OECD Test Guideline 405         Remarks       :       Based on data from similar materials         Benzyl alcohol:       :       Species         Species       :       Rabbit         Result       :       Irritation to eyes, reversing within 21 days         Method       :       OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization         Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         Method       :	Method       : OECD Test Guideline 405         Remarks       : Based on data from similar materials         Benzyl alcohol:       :         Species       : Rabbit         Result       : Irritation to eyes, reversing within 21 days         Method       : OECD Test Guideline 405         Respiratory or skin sensitization       Skin sensitization         Skin sensitization       Not classified based on available information.         Respiratory sensitization       Not classified based on available information.         Components:       Benzyl alcohol:         Test Type       : Maximization Test         Routes of exposure       : Skin contact         Species       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         Genotoxicity in vitro       : Test Type: Bacterial reverse mutation assay (AMES Result : negative         Genotoxicity in vitro       : Test Type: DNA Repair Result : negative         Test Type: DNA Repair Result : negative       Test Type: Chromosomal aberration	Speci	es	:	Rabbit	
Remarks       :       Based on data from similar materials         Benzyl alcohol:       Species       :       Rabbit         Result       :       Irritation to eyes, reversing within 21 days         Method       :       OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization       Not classified based on available information.         Respiratory sensitization       Not classified based on available information.         Respiratory sensitization       Not classified based on available information.         Respiratory sensitization       Not classified based on available information.         Benzyl alcohol:       Image: Skin contact         Test Type       :       Skin contact         Species       :       Guinea pig         Method       :       OECD Test Guideline 406         Result       :       negative         Germ cell mutagenicity       Image: Skin contact         Not classified based on available information.       Image: Skin contact         Components:       Image: Skin contact         Benzyl alcohol:       Image: Skin contact         Result       :       negative         Method       :       OECD Test Guideline 406         Result       : </td <td>Remarks       :       Based on data from similar materials         Benzyl alcohol:       .         Species       :       Rabbit         Result       :       Irritation to eyes, reversing within 21 days         Method       :       OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization       .         Not classified based on available information.       Respiratory sensitization         Not classified based on available information.       Components:         Benzyl alcohol:       .         Test Type       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :</td> <td>Resu</td> <td>lt</td> <td>:</td> <td></td> <td></td>	Remarks       :       Based on data from similar materials         Benzyl alcohol:       .         Species       :       Rabbit         Result       :       Irritation to eyes, reversing within 21 days         Method       :       OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization       .         Not classified based on available information.       Respiratory sensitization         Not classified based on available information.       Components:         Benzyl alcohol:       .         Test Type       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :	Resu	lt	:		
Benzyl alcohol:         Species       : Rabbit         Result       : Irritation to eyes, reversing within 21 days         Method       : OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       : Maximization Test         Routes of exposure       : Skin contact         Species       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Gern cell mutagenicity         Not classified based on available information.         Components:         Genotoxicity in vitro       : Test Type: Bacterial reverse mutation assay (AMES)         Result: negative         Cest Type: DNA Repair         Result: negative	Benzyl alcohol:         Species       : Rabbit         Result       : Irritation to eyes, reversing within 21 days         Method       : OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization         Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       : Maximization Test         Routes of exposure       : Skin contact         Species       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         Geno colspan="2">Genotoxicity in vitro         Genotoxicity in vitro       : Test Type: Bacterial reverse mutation assay (AMES)         Result: negative       : Test Type: DNA Repair         Result: negative       : Test Type: Chromosomal aberration			:		
Species       :       Rabbit         Result       :       Irritation to eyes, reversing within 21 days         Method       :       OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization       Skin sensitization         Not classified based on available information.       Respiratory sensitization         Not classified based on available information.       Respiratory sensitization         Not classified based on available information.       Components:         Benzyl alcohol:       :         Test Type       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :         Result       :         Method       :         OECD Test Guideline 406         Result       :	Species       :       Rabbit         Result       :       Irritation to eyes, reversing within 21 days         Method       :       OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization         Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       :         Method       :         Species       :         Guinea pig         Method       :         Method       :         Result       :         Result       :         Item cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro       :         Test Type: Bacterial reverse mutation assay (AMES Result: negative         Result: negative         Test Type: DNA Repair         Result: negative         Test Type: Chromosomal aberration	Rema	arks	:	Based on data	from similar materials
Result       :       Irritation to eyes, reversing within 21 days         Method       :       OECD Test Guideline 405         Respiratory or skin sensitization       Skin sensitization         Skin sensitization       Not classified based on available information.         Respiratory sensitization       Not classified based on available information.         Respiratory sensitization       Not classified based on available information.         Components:       Benzyl alcohol:         Test Type       :         Method       :         Species       :         Germ cell mutagenicity         Not classified based on available information.         Components:         Germ cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro       :         Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative	Result       :       Irritation to eyes, reversing within 21 days         Method       :       OECD Test Guideline 405         Respiratory or skin sensitization       Skin sensitization         Skin sensitization       Not classified based on available information.         Respiratory sensitization       Not classified based on available information.         Respiratory sensitization       Not classified based on available information.         Components:       Benzyl alcohol:         Test Type       :       Maximization Test         Routes of exposure       :       Skin contact         Species       :       Guinea pig         Method       :       OECD Test Guideline 406         Result       :       negative         Germ cell mutagenicity       Not classified based on available information.         Components:       information.         fenbendazole:       :         Genotoxicity in vitro       :       Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair       Result: negative       Test Type: Chromosomal aberration	Benz	yl alcohol:			
Method       : OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       : Maximization Test         Routes of exposure       : Skin contact         Species       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro       : Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair         Result: negative	Method       : OECD Test Guideline 405         Respiratory or skin sensitization         Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       : Maximization Test         Routes of exposure       : Skin contact         Species       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro       : Test Type: Bacterial reverse mutation assay (AMES Result: negative         Result: negative         Test Type: DNA Repair Result: negative         Test Type: Chromosomal aberration	Speci	es	:	Rabbit	
Respiratory or skin sensitization         Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       :         Maximization Test         Routes of exposure       :         Skin contact         Species       :         Germ cell mutagenicity         Not classified based on available information.         Components:         Germ cell mutagenicity         Not classified based on available information.         Components:         Genotoxicity in vitro         :       Test Type: Bacterial reverse mutation assay (AMES)         Result: negative         Test Type: DNA Repair         Result: negative	Respiratory or skin sensitization         Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       : Maximization Test         Routes of exposure       : Skin contact         Species       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro       : Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative         Test Type: Chromosomal aberration	Resu	lt	:	Irritation to eye	es, reversing within 21 days
Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       : Maximization Test         Routes of exposure       : Skin contact         Species       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro       : Test Type: Bacterial reverse mutation assay (AMES)         Result: negative         Test Type: DNA Repair         Result: negative	Skin sensitization         Not classified based on available information.         Respiratory sensitization         Not classified based on available information.         Components:         Benzyl alcohol:         Test Type       : Maximization Test         Routes of exposure       : Skin contact         Species       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro       : Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative         Test Type: Chromosomal aberration	Metho	bd	:	OECD Test Gu	uideline 405
Test Type       :       Maximization Test         Routes of exposure       :       Skin contact         Species       :       Guinea pig         Method       :       OECD Test Guideline 406         Result       :       negative         Germ cell mutagenicity         Not classified based on available information.         Components:       :         fenbendazole:       :         Genotoxicity in vitro       :         Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative	Test Type       :       Maximization Test         Routes of exposure       :       Skin contact         Species       :       Guinea pig         Method       :       OECD Test Guideline 406         Result       :       negative         Germ cell mutagenicity       Not classified based on available information.         Components:       :         fenbendazole:       :         Genotoxicity in vitro       :         Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative         Test Type: Chromosomal aberration	<b>Resp</b> Not c	iratory sensitization lassified based on avail			
Test Type       :       Maximization Test         Routes of exposure       :       Skin contact         Species       :       Guinea pig         Method       :       OECD Test Guideline 406         Result       :       negative         Germ cell mutagenicity         Not classified based on available information.         Components:       :         fenbendazole:       :         Genotoxicity in vitro       :         Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative	Test Type       :       Maximization Test         Routes of exposure       :       Skin contact         Species       :       Guinea pig         Method       :       OECD Test Guideline 406         Result       :       negative         Germ cell mutagenicity       Not classified based on available information.         Components:       :         fenbendazole:       :         Genotoxicity in vitro       :         Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative         Test Type: Chromosomal aberration	Benz	vi alcohol:			
Routes of exposure       :       Skin contact         Species       :       Guinea pig         Method       :       OECD Test Guideline 406         Result       :       negative         Germ cell mutagenicity         Not classified based on available information.         Components:       fenbendazole:         Genotoxicity in vitro       :       Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative       Test Type: DNA Repair Result: negative	Routes of exposure       :       Skin contact         Species       :       Guinea pig         Method       :       OECD Test Guideline 406         Result       :       negative         Germ cell mutagenicity       Not classified based on available information.         Components:       fenbendazole:         Genotoxicity in vitro       :       Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair       Result: negative         Test Type: Chromosomal aberration				Maximization T	ost
Species       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro         :       Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative	Species       : Guinea pig         Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro         :       Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative         Test Type: Chromosomal aberration			:		est
Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro         :       Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative	Method       : OECD Test Guideline 406         Result       : negative         Germ cell mutagenicity         Not classified based on available information.         Components:         fenbendazole:         Genotoxicity in vitro         :       Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative         Test Type: Chromosomal aberration			:		
Germ cell mutagenicity Not classified based on available information. Components: fenbendazole: Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES Result: negative Test Type: DNA Repair Result: negative	Germ cell mutagenicity Not classified based on available information. Components: fenbendazole: Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES Result: negative Test Type: DNA Repair Result: negative Test Type: Chromosomal aberration	•		:		uideline 406
Not classified based on available information. Components: fenbendazole: Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES Result: negative Test Type: DNA Repair Result: negative	Not classified based on available information. Components: fenbendazole: Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES Result: negative Test Type: DNA Repair Result: negative Test Type: Chromosomal aberration	Resu	lt	:	negative	
fenbendazole:         Genotoxicity in vitro       : Test Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative	fenbendazole:       Fest Type: Bacterial reverse mutation assay (AMES Result: negative         Test Type: DNA Repair Result: negative       Test Type: Chromosomal aberration			ailable i	information.	
Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES Result: negative Test Type: DNA Repair Result: negative	Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES Result: negative Test Type: DNA Repair Result: negative Test Type: Chromosomal aberration	<u>Com</u>	oonents:			
Result: negative Test Type: DNA Repair Result: negative	Result: negative Test Type: DNA Repair Result: negative Test Type: Chromosomal aberration	fenbe	endazole:			
Result: negative	Result: negative Test Type: Chromosomal aberration	Geno	toxicity in vitro	:		
Test Type: Chromosomal aberration						
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		Result: negati	ve
			mouse lymphoma cells vation: Metabolic activation
Silico	on, amorphous:		
	toxicity in vitro	Method: OEC Result: negati	cterial reverse mutation assay (AMES) D Test Guideline 471 ve sed on data from similar materials
Geno	toxicity in vivo	cytogenetic te Species: Rat Application Ro Result: negati	utagenicity (in vivo mammalian bone-marrow st, chromosomal analysis) pute: Ingestion ve sed on data from similar materials
Benz	yl alcohol:		
Geno	toxicity in vitro	: Test Type: Ba Result: negati	cterial reverse mutation assay (AMES) ve
Geno	toxicity in vivo	cytogenetic as Species: Mou	se function set injection
Carci	nogenicity		
	lassified based on av ponents:	ailable information.	
Speci Applio	cation Route sure time EL	: Mouse : oral (feed) : 2 Years : 405 mg/kg bo : negative	dy weight
Expos NOAE Resu	cation Route sure time EL	: Rat : Oral : 2 Years : 5 mg/kg body : negative : Lymph nodes	-

#### Silicon, amorphous:

Species

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Ex Re	plication Ro posure time sult marks			Ingestion 103 weeks negative Based on data fro	om similar materials
Sp Ap Ex Me	nzyl alcoh ecies plication Ro oosure time thod sult	oute e	:	Mouse Ingestion 103 weeks OECD Test Guide negative	eline 451 t at levels greater than or equal to 0.1% is
	SHA	identified as p	orob nt of	able, possible or co	onfirmed human carcinogen by IARC.
NT	Ρ				t at levels greater than or equal to 0.1% is carcinogen by NTP.
Su: <u>Co</u>	mponents	damaging fertili	ty. S	Suspected of dama	ging the unborn child.
	bendazole		:	Species: Rat Application Route General Toxicity F	Parent: NOAEL: 15 mg/kg body weight 45 mg/kg body weight
Eff	ects on feta	al development	:	Result: Embryoto	nale
				Species: Rabbit Application Route	oxicity: NOAEL: 25 mg/kg body weight
				Species: Rabbit Application Route	ro-fetal development : Oral oxicity: LOAEL: 63 mg/kg body weight
				Test Type: Embry	ro-fetal development

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				•	: Oral oxicity: NOAEL: 120 mg/kg body weight on fetal development.
	Reprod sessme	luctive toxicity - As- ent	:	fertility, based on	f adverse effects on sexual function and animal experiments., Some evidence of a development, based on animal
	Silicon	, amorphous:			
		on fetal development	:	Species: Rat Application Route Result: negative	o-fetal development : Ingestion on data from similar materials
	Benzyl	alcohol:			
	-	on fertility	:	Species: Rat Application Route Result: negative	y/early embryonic development : Ingestion on data from similar materials
	Effects	on fetal development	:	Test Type: Embry Species: Mouse Application Route Result: negative	o-fetal development : Ingestion

#### STOT-single exposure

Not classified based on available information.

#### STOT-repeated exposure

May cause damage to organs (Liver, Stomach, Nervous system, Lymph nodes) through prolonged or repeated exposure if swallowed.

#### Components:

#### fenbendazole:

Routes of exposure	:	Ingestion
Target Organs	:	Liver, Stomach, Nervous system, Lymph nodes
Assessment	:	May cause damage to organs through prolonged or repeated
		exposure.

#### Repeated dose toxicity

#### **Components:**

#### fenbendazole:

Species	:	Rat
LÕAEL	:	500 mg/kg
Application Route	:	Oral

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	sure time et Organs	: 2 Weeks : Kidney, Liver
	EL cation Route sure time	<ul> <li>Rat</li> <li>&gt; 2,500 mg/kg</li> <li>Oral</li> <li>30 Days</li> <li>No significant adverse effects were reported</li> </ul>
Expos	EL cation Route sure time et Organs	<ul> <li>Rat</li> <li>1,600 mg/kg</li> <li>Oral</li> <li>90 Days</li> <li>Central nervous system</li> <li>Tremors</li> </ul>
	ΞL	<ul> <li>Dog</li> <li>4 mg/kg</li> <li>8 mg/kg</li> <li>6 Months</li> <li>Stomach, Nervous system, Lymph nodes</li> </ul>
Silico	on, amorphous:	
	EL cation Route sure time	<ul> <li>Rat</li> <li>1.3 mg/l</li> <li>inhalation (dust/mist/fume)</li> <li>13 Weeks</li> <li>Based on data from similar materials</li> </ul>
Benz	yl alcohol:	
	EL cation Route sure time	<ul> <li>Rat</li> <li>1.072 mg/l</li> <li>inhalation (dust/mist/fume)</li> <li>28 Days</li> <li>OECD Test Guideline 412</li> </ul>
-	<b>ation toxicity</b> lassified based on ava	lable information.
	ponents:	
	endazole: spiration toxicity classi	cation
Expe	rience with human e	posure
<u>Com</u>	oonents:	
<b>fenbe</b> Inges	endazole: tion	: Symptoms: Rapid respiration, Salivation, anorexia, Diarrhea

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#### **SECTION 12. ECOLOGICAL INFORMATION**

### Ecotoxicity

Components:		
fenbendazole: Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.009 mg/l Exposure time: 21 d
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.0088 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to daphnia and other aquatic invertebrates (Chron-ic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.00113 mg/l Exposure time: 21 Days Method: OECD Test Guideline 211
<b>Silicon, amorphous:</b> Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): > 10,000 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 24 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): > 10,000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
		NOEC (Desmodesmus subspicatus (green algae)): 10,000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
Benzyl alcohol:		
Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 460 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 230 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 770 mg/l Exposure time: 72 h

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			Method: OECD 1	est Guideline 201
			mg/l Exposure time: 7	irchneriella subcapitata (green algae)): 310 2 h <sup>-</sup> est Guideline 201
	ty to daphnia and other ic invertebrates (Chron- city)	:	Exposure time: 2	magna (Water flea)): 51 mg/l 1 d est Guideline 211
Persis	stence and degradabili	ty		
Comp	oonents:			
	<b>/l alcohol:</b> gradability	:	Result: Readily b Biodegradation: Exposure time: 1	92 - 96 %
Bioac	cumulative potential			
<u>Comp</u>	oonents:			
Partiti	<b>ndazole:</b> on coefficient: n- ol/water	:	log Pow: 3.32	
Partiti	<b>/l alcohol:</b> on coefficient: n- ol/water	:	log Pow: 1.05	
Mobil	ity in soil			
Comp	oonents:			
Distrib	ndazole: oution among environ- al compartments	:	log Koc: 3.8 - 4.7 Method: FDA 3.0	
	adverse effects ta available			

Disposal methods		
Waste from residues	:	Dispose of in accordance with local regulations. Do not dispose of waste into sewer.
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.

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#### SECTION 14. TRANSPORT INFORMATION

#### **International Regulations**

U	N	R	ΓD	)G	

UN number Proper shipping name	:	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (fenbendazole)
Class	:	9
Packing group	:	III
Labels	:	9
Environmentally hazardous	:	yes
IATA-DGR		
UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (fenbendazole)
Class	:	9
Packing group	:	
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	964
Packing instruction (passen- ger aircraft)	:	964
Environmentally hazardous	:	yes
IMDG-Code		
UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
		(fenbendazole)
Class	:	9
Packing group	÷	
Labels EmS Code	÷	9
Marine pollutant	:	F-A, S-F
	•	yes

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

Not applicable for product as supplied.

#### **Domestic regulation**

49 CFR		
UN/ID/NA number	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (fenbendazole)
Class	:	9
Packing group	:	III
Labels	:	CLASS 9
ERG Code	:	171
Marine pollutant	:	yes(fenbendazole)
Remarks	:	Above applies only to containers over 119 gallons or 450 liters.
		Shipment by ground under DOT is non-regulated; however it

according to the OSHA Hazard Communication Standard

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may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

#### 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.

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

#### **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

#### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards	:	Reproductive toxicity Specific target organ toxicity (single or	repeated exposure)
SARA 313	:	This material does not contain any che known CAS numbers that exceed the reporting levels established by SARA	threshold (De Minimis)
US State Regulations			
Pennsylvania Right To Kno	w		
Water fenbendazole			7732-18-5 43210-67-9
	osu	re Limits for Chemical Contaminants	10210 01 0
Silicon, amorphous			112945-52-5
The ingredients of this proc	duc	t are reported in the following invento	ries:
AICS	:	not determined	
DSL	:	not determined	
IECSC	:	not determined	

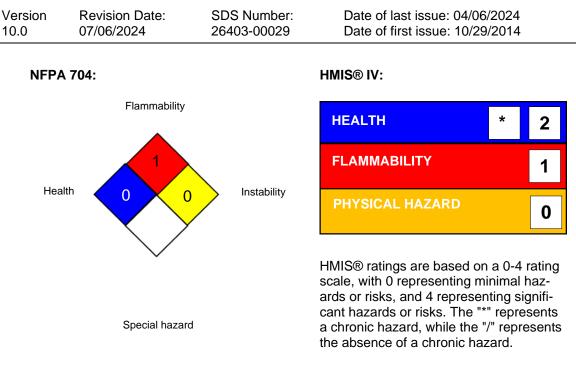
#### **SECTION 16. OTHER INFORMATION**

Further information



according to the OSHA Hazard Communication Standard

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#### Full text of other abbreviations

NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA Z-3 / TWA	:	8-hour time weighted average
US WEEL / TWA	:	8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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 sub-



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stance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; 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

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/

Revision Date : 07/06/2024

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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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