

## Permethrin (5%) Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 30.09.2023
4.0	28.09.2024	1965396-00016	Date of first issue: 20.09.2017

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name

: Permethrin (5%) Formulation

Manufacturer or supplier's details					
Company name of supplier	:	MSD			
Address		126 E. Lincoln Avenue			
Telephone		Rahway, New Jersey U.S.A. 07065 908-740-4000			
Emergency telephone	÷	1-908-423-6000			
E-mail address	:	EHSDATASTEWARD@msd.com			
Recommended use of the chemical and restrictions on use					
Recommended use	:	Veterinary product			
Restrictions on use	:	Not applicable			

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

GHS Classification Skin sensitization	:	Category 1
Aspiration hazard	:	Category 1
GHS label elements		
Hazard pictograms	:	
Signal Word	:	Danger
Hazard Statements	:	H304 May be fatal if swallowed and enters airways. H317 May cause an allergic skin reaction.
Precautionary Statements	:	<b>Prevention:</b> P261 Avoid breathing mist or vapors. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves.
		Response: P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. P302 + P352 IF ON SKIN: Wash with plenty of water.
		<ul> <li>P331 Do NOT induce vomiting.</li> <li>P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.</li> <li>P362 + P364 Take off contaminated clothing and wash it before reuse.</li> </ul>

P405 Store locked up.





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### Disposal:

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

### Other hazards

Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Paraffin oils (petroleum), catalytic dewaxed light	64742-71-8	>= 70 -< 90
Permethrin (ISO)	52645-53-1	>= 5 -< 10

### SECTION 4. FIRST AID MEASURES

General advice	:	In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of skin contact	:	
In case of 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. If vomiting occurs have person lean forward. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	:	May be fatal if swallowed and enters airways. May cause an allergic skin reaction. This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.
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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				Dry chemical	
	Unsuita media	ble extinguishing	:	None known.	
	Specific fighting	c hazards during fire	:	Exposure to combustion products may be a hazard to health.	
	Hazard ucts	ous combustion prod-	:	Chlorine compounds Carbon oxides	
	Specific ods	c extinguishing meth-	:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to c so. Evacuate area.	
	Special for fire-	protective equipment fighters	:	In the event of fire Use personal prot	e, wear self-contained breathing apparatus. ective equipment.
SEC	TION 6	ACCIDENTAL RELE	ASI	EMEASURES	
	tive equ	al precautions, protec- upment and emer- procedures	:	Follow safe handl	ective equipment. ing advice (see section 7) and personal ent recommendations (see section 8).
	Environ	mental precautions	:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g., by containment of oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.	
		ls and materials for ment 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	t absorbent material. rovide diking or other appropriate ep material from spreading. If diked material store recovered material in appropriate ng 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



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Local/Total ventilation Advice on safe handling		<ul> <li>Use only</li> <li>Do not ge Avoid bre Do not sv Avoid cor Handle ir practice, assessme Keep cor Take care</li> </ul>	<ul> <li>CONTROLS/PERSONAL PROTECTION section.</li> <li>Use only with adequate ventilation.</li> <li>Do not get on skin or clothing. Avoid breathing mist or vapors. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment Keep container tightly closed. Take care to prevent spills, waste and minimize release to the environment.</li> </ul>			
Hygi	Hygiene measures		If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before re-use. The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.			
Con	ditions for safe storage					
Mate	erials to avoid					

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ingredients with workplace control parameters						
Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis		
Permethrin (ISO)	52645-53-1	TWA	80 µg/m3 (OEB 3)	Internal		
		Wipe limit	800 µg/100 cm <sup>2</sup>	Internal		

### Ingredients with workplace control parameters

Engineering measures	<ul> <li>Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., dripless quick connections).</li> <li>All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.</li> <li>Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices).</li> <li>Minimize open handling.</li> </ul>
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Pers	onal protective equipn	nent			
Respiratory protection Filter type Hand protection		exposure ass recommende	If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection. Combined particulates and organic vapor type		
N	laterial	: Chemical-res	istant gloves		
Eye	emarks protection and body protection	If the work en mists or aeros Wear a faces potential for o aerosols. Work uniform Additional boo task being pe disposable su	plasses with side shields or goggles. vironment or activity involves dusty conditions, sols, wear the appropriate goggles. hield or other full face protection if there is a lirect contact to the face with dusts, mists, or or laboratory coat. dy garments should be used based upon the rformed (e.g., sleevelets, apron, gauntlets, its) to avoid exposed skin surfaces. ate degowning techniques to remove potentially		

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	clear, amber
Odor	:	odorless
Odor Threshold	:	No data available
рН	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	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 flammability limit	:	No data available
Vapor pressure	:	< 2 mmHg (25 °C)



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R	elative vapor density	: No data available	
	elative density	: 0.876 (20 °C)	
	ensity	: No data available	
S	olubility(ies) Water solubility	: immiscible	
	artition coefficient: n- ctanol/water	: Not applicable	
	utoignition temperature	: No data available	
D	ecomposition temperature	: No data available	
Vi	iscosity Viscosity, dynamic	: 39 Pas	
	Viscosity, kinematic	: No data available	
E	xplosive properties	: Not explosive	
0	xidizing properties	: The substance or mixture is not classified as oxidiz	ing.
Μ	olecular weight	: No data available	
	article characteristics article size	: Not applicable	

### SECTION 10. STABILITY AND REACTIVITY

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

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Inhalation Skin contact Ingestion Eye contact

### Acute toxicity

Not classified based on available information.

#### Product:



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Acute	e oral toxicity		: Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method				
Acute	Acute inhalation toxicity		xicity estimate: > 10 mg/l e time: 4 h nosphere: dust/mist Calculation method				
<u>Com</u>	ponents:						
Paraf	fin oils (petroleum),	catalytic dewa	xed light:				
Acute	e oral toxicity		at): > 5,000 mg/kg OECD Test Guideline 401				
Acute	inhalation toxicity		at): > 5.53 mg/l				
			e time: 4 h nosphere: dust/mist				
			OECD Test Guideline 403				
Acute	e dermal toxicity		abbit): > 5,000 mg/kg OECD Test Guideline 402				
Perm	ethrin (ISO):						
Acute	e oral toxicity	: LD50 (R	at): 480 - 554 mg/kg				
Acute	inhalation toxicity	Exposur	at): 2.3 mg/l e time: 4 h nosphere: dust/mist				
Acute	e dermal toxicity	: LD50 (R	abbit): > 2,000 mg/kg				
Not c	<b>corrosion/irritation</b> lassified based on ava ponents:	ilable informatio	on.				
	ifin oils (petroleum),	catalytic dowa	ved light:				
Speci		: Rabbit					
Resu		: No skin	irritation				
Perm	ethrin (ISO):						
Speci	ies	: Rabbit					
Resu	lt	: No skin	irritation				
Serio	ous eye damage/eye i	rritation					
Not c	lassified based on ava	ilable information	on.				
Com	ponents:						
	fin oils (petroleum),	catalytic dewa	xed light:				
Speci Resu		: Rabbit	rritation				
Resu	IL	: No eye i	IIItatioII				



<section-header>Permethrin (ISO):Species:: RabbitResult:: No eye irritationAssignatory or skin sensitizationMay cause an allergic skin reaction.Respiratory ensitizationMay cause an allergic skin reaction.Respiratory ensitizationNot classified based on available information.Permetino is (petroleum), catalytic dewaxed light:Test Type:: Buehler TestRoutes of exposure:: Skin contactSpecies:: Guinea pigMethod:: CeCD Test Guideline 406Result:: negativePermethrin (ISO)::Test Type:: Buehler TestRoutes of exposure:: Skin contactSpecies:: Guinea pigMethod:: Debability or evidence of skin sensitization in humanMethod species:: Skin contactSpecies:: Debability or evidence of skin sensitization in humanMethod species:: Skin contactSpecies:: Debability or evidence of skin sensitization in humanMethod species:: Skin contactSpecies:: Skin contactSpecies:: Skin contactSpecies: Skin contact</section-header>	ersion .0	Revision Date: 28.09.2024	SDS Number: 1965396-00016	Date of last issue: 30.09.2023 Date of first issue: 20.09.2017
Species       ::       Rabbit         Result       ::       No eye irritation         Skin sensitization       Skin sensitization         May cause an allergic skin reaction.       Respiratory sensitization         Not classified based on available information.       Components:         Paraffin oils (petroleum), catalytic dewaxed light:       Test Type         Test Type       ::       Buchler Test         Routes of exposure       ::       Skin contact         Species       ::       OECD Test Guideline 406         Result       ::       negative         Permethrin (ISO):       Ifest Type       ::         Test Type       ::       Buchler Test         Routes of exposure       ::       Skin contact         Species       ::       Guinea pig         Routes of exposure       ::       Skin contact         Species       ::       Guinea pig         Result       ::       positive         Assessment       ::       positive         Assessment       ::       Probability or evidence of skin sensitization in humar         Geno cell mutagenicity				
Result       : No eye irritation         Respiratory or skin sensitization         Skin sensitization         May cause an allergic skin reaction.         Respiratory sensitization         Not classified based on available information.         Components:         Paraffin oils (petroleum), catalytic dewaxed light:         Test Type       : Buehler Test         Routes of exposure       :: Skin contact         Species       :: OECD Test Guideline 406         Result       : negative         Permethrin (ISO):	Perm	ethrin (ISO):		
Respiratory or skin sensitization         Skin sensitization         May cause an allergic skin reaction.         Respiratory sensitization         Not classified based on available information.         Components:         Paraffin oils (petroleum), catalytic dewaxed light:         Test Type : Buehler Test         Routes of exposure : Skin contact         Species : Guinea pig         Method: Not Classified based on available information.         Permethrin (ISO):         Test Type : Skin contact         Result : negative         Permethrin (ISO):         Test Type : Skin contact         Species : Guinea pig         Result : positive         Assessment : Probability or evidence of skin sensitization in humar         Gern cell mutagenicity         Not classified based on available information.         Components:         Paraffin oils (petroleum), catalytic dewaxed light:         Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro         Result: negative         Test Type: In vitro mammalian cell gene mutation test         Method: OECD Test Guideline 476         Result: negative         Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test         Cytogenetic assay)         Spec				tion.
Skin sensitization         May cause an allergic skin reaction.         Respiratory sensitization         Not classified based on available information.         Components:         Paraffin oils (petroleum), catalytic dewaxed light:         Test Type       ::         Buschler Test         Routes of exposure       ::         Species       ::         Guine of exposure       ::         Suth the thod       ::         Species       ::         Method       ::         Permethrin (ISO):         Test Type       ::         Test Type       ::         Result       :         Routes of exposure       :         Syncicies       ::         Gern cell mutagenicity         Not classified based on available information.         Components:         Paraffin oils (petroleum), catalytic dewaxed light:         Genotoxicity in vitro       :         Test Type: In vitro mammalian cell gene mutation test         Method: OECD Test Guideline 476         Result: negative         Genotoxicity in vivo       :         Test Type: Mammalian erythrocyte micronucleus test         Cytogenetic assay) <t< td=""><td>Resu</td><td>IT</td><td>: No eye Irrita</td><td>tion</td></t<>	Resu	IT	: No eye Irrita	tion
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Respiratory sensitization         Not classified based on available information.         Components:         Paraffin oils (petroleum), catalytic dewaxed light:         Test Type       ::::::::::::::::::::::::::::::::::::	Skin	sensitization		
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Method: OECD Test Guideline 474 Result: negative Permethrin (ISO):	Geno	toxicity in vivo	cytogenetic Species: Mo	assay) buse
• •			Method: OE	CD Test Guideline 474
Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)		• •		
	Geno	toxicity in vitro	: Test Type: E	Bacterial reverse mutation assay (AMES)
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sion	Revision Date: 28.09.2024	SDS Number: 1965396-00016	Date of last issue: 30.09.2023 Date of first issue: 20.09.2017
		Result: negative	9
		Test Type: In vi Result: negative	tro mammalian cell gene mutation test
		Test Type: Chro Result: negative	omosome aberration test in vitro
			A damage and repair, unscheduled DNA sy nalian cells (in vitro) e
		Test Type: Chro Result: positive	pmosome aberration test in vitro
Genotoxicity in vivo	: Test Type: Man cytogenetic ass Species: Mouse Result: negative		
		Test Type: Rod Species: Mouse Result: negative	
		cytogenetic ass Species: Rat	ite: Intraperitoneal injection
		Test Type: Mut	agenicity (in vivo mammalian bone-marrow ;, chromosomal analysis) e ite: Ingestion
	n cell mutagenicity - ssment	: Weight of evide cell mutagen.	nce does not support classification as a ge

Not classified based on available information.

### Components:

### Paraffin oils (petroleum), catalytic dewaxed light:

:	Mouse
:	Skin contact
:	78 weeks
:	negative
	:



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Perme	ethrin (ISO):			
Specie Result		:	Rat negative	
Specie Result		:	Mouse negative	
-	ductive toxicity assified based on availa	ble	information	
	onents:			
Perme	ethrin (ISO):			
Effects	s on fertility	:	Test Type: Two-g Species: Rat Application Route Result: negative	eneration reproduction toxicity study :: Ingestion
Effects	s on fetal development	:		ined repeated dose toxicity study with the elopmental toxicity screening test e: Ingestion
STOT	-single exposure			
	assified based on availa	ble	information.	
	-repeated exposure assified based on availation	ble	information.	
Repea	ated dose toxicity			
Comp	onents:			
Paraff	in oils (petroleum), ca	taly	tic dewaxed light	:
Specie NOAE		:	Rat >= 2,000 mg/kg	
Applic	ation Route	÷	Skin contact	
Expos Metho	ure time d	:	90 Days OECD Test Guide	eline 411
Perme	ethrin (ISO):			
Specie	. ,	:	Rat	
NOAE		:	0.2201 mg/l	
	ation Route ure time	:	Inhalation 90 Days	
Specie		:	Rat	
NOAE	L ation Route	:	175 mg/kg Ingestion	
	ure time	:	90 Days	



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### Aspiration toxicity

May be fatal if swallowed and enters airways.

### Components:

#### Paraffin oils (petroleum), catalytic dewaxed light:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

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

#### Ecotoxicity

### **Components:**

### Paraffin oils (petroleum), catalytic dewaxed light:

		-	-
	Toxicity to fish	:	LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction
			Method: OECD Test Guideline 203
	Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 48 h
			Test substance: Water Accommodated Fraction
	Toxicity to algae/aquatic plants	:	EL50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
			Exposure time: 72 h Test substance: Water Accommodated Fraction
			Method: OECD Test Guideline 201
			NOELR (Pseudokirchneriella subcapitata (green algae)): 100 mg/l
			Exposure time: 72 h
			Test substance: Water Accommodated Fraction Method: OECD Test Guideline 201
	Toxicity to daphnia and other	:	
	aquatic invertebrates (Chron- ic toxicity)		Exposure time: 21 d Test substance: Water Accommodated Fraction
	Toxicity to microorganisms	:	NOEC: > 2.17 mg/l Exposure time: 10 min
-	Permethrin (ISO):		
	Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.00079 mg/l Exposure time: 96 h
	Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.0001 mg/l Exposure time: 48 h
	Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1.13 mg/l



ersion D	Revision Date: 28.09.2024		0S Number: 65396-00016	Date of last issue: 30.09.2023 Date of first issue: 20.09.2017
II			Exposure time: 72	2 h
			EC10 (Pseudokiro mg/l Exposure time: 72	chneriella subcapitata (green algae)): 0.002 2 h
Toxici icity)	ty to fish (Chronic tox-	:	NOEC (Danio reri Exposure time: 35 Method: OECD T	
	ty to daphnia and other c invertebrates (Chron- city)	:	NOEC (Daphnia r Exposure time: 21 Method: OECD T	
Toxici	ty to microorganisms	:	EC50: > 1,000 mą Exposure time: 3	
Persis	stence and degradabili	ity		
<u>Comp</u>	onents:			
Paraf	in oils (petroleum), ca	taly	tic dewaxed light	:
Biode	gradability	:	Result: Not readil Biodegradation: 3 Exposure time: 28 Method: OECD T	31 %
Perm	ethrin (ISO):			
	gradability	:	Result: Not readil Method: OECD T	y biodegradable. est Guideline 301F
Bioac	cumulative potential			
<u>Comp</u>	onents:			
Perm	ethrin (ISO):			
Bioac	cumulation	:	Species: Lepomis Bioconcentration	macrochirus (Bluegill sunfish) factor (BCF): 570
	on coefficient: n- bl/water	:	log Pow: 4.67	
	<b>ity in soil</b> ta available			
Other	adverse effects			

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



ersion .0	Revision Date: 28.09.2024		S Number: 65396-00016	Date of last issue: 30.09.2023 Date of first issue: 20.09.2017			
Contaminated packaging			<ul> <li>Empty containers should be taken to an approved waste handling site for recycling or disposal.</li> <li>If not otherwise specified: Dispose of as unused product.</li> </ul>				
ECTION	14. TRANSPORT INFO	DRM	ATION				
Interr	national Regulations						
UNRT	E E E E E E E E E E E E E E E E E E E						
UN nu		:	UN 3082				
	er shipping name	:		ITALLY HAZARDOUS SUBSTANCE, LIQUID, SO))			
Class		:	9	//			
Packi	ng group	:	111				
Label		:	9				
Enviro	onmentally hazardous	:	yes				
ΙΑΤΑ-	-DGR						
UN/ID	-	:	UN 3082				
Prope	er shipping name	:	(Permethrin (IS	y hazardous substance, liquid, n.o.s. SO))			
Class		:	9				
	ng group	:					
Label	-	÷	Miscellaneous				
aircra	ng instruction (cargo ft)		964				
	ng instruction (passen-	:	964				
ger ai	rcraft)						
Enviro	onmentally hazardous	:	yes				
IMDG	-Code						
UN nı	umber	:	UN 3082				
Prope	er shipping name	:		TALLY HAZARDOUS SUBSTANCE, LIQUID			
			N.O.S.				
			(Permethrin (IS	SO))			
Class		÷	9				
Label	ng group	:	III 9				
EmS		:	5 F-A, S-F				
	e pollutant	÷	ves				
	•	g to	Annex II of MA	RPOL 73/78 and the IBC Code			
Not a	pplicable for product as	supp	olied.				
Dome	estic regulation						
NOM-	-002-SCT						
UN nı		:	UN 3082				
Prope	er shipping name	:		ITALLY HAZARDOUS SUBSTANCE, LIQUID,			
			N.O.S.	SON			
Class			(Permethrin (IS	50))			
		:	9 III				
		:					
	ng group	:	9 9				



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#### 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

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

Federal Law for the control of chemical precursors, : Not applicable essential chemical products and machinery for producing capsules, tablets and pills.

#### The ingredients of this product are reported in the following inventories:

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

### SECTION 16. OTHER INFORMATION

Revision Date	:	28.09.2024
Date format	:	dd.mm.yyyy

#### Full text of other abbreviations

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



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Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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/

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

The information is considered as correct, but not exhaustive, and will be used only as a guide, which is based in the current knowledge of the substance or mixture, and is applicable to proper safety precautions for the product.

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