

Version	Revision Date:	SDS Number:	Date of last issue: 09.07.2024
8.1	28.09.2024	27888-00029	Date of first issue: 04.11.2014

### **SECTION 1:** Identification of the substance/mixture and of the company/undertaking

1.1	Product identifier					
	Trade name	:	Indoxacarb / Permethrin Formulation			
1.2	Relevant identified uses of the set of the s	he s	ubstance or mixture and uses advised against			
	Use of the Sub- stance/Mixture	:	Veterinary product			
	Recommended restrictions on use	:	Not applicable			
1.3	1.3 Details of the supplier of the safety data sheet					
	Company	:	MSD			
			Kilsheelan			
			Clonmel Tipperary, IE			
	Telephone	:	353-51-601000			
	E-mail address of person responsible for the SDS	:	EHSDATASTEWARD@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)

Flammable liquids, Category 3 Acute toxicity, Category 4	H226: Flammable liquid and vapour. H302: Harmful if swallowed.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure, Category 1	H372: Causes damage to organs through pro- longed or repeated exposure.
Short-term (acute) aquatic hazard, Cate- gory 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Cat- egory 1	H410: Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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H	azard	pictograms	:		
Si	ignal	word	:	Danger	• • •
H	azard	statements	:	H226 H302 + H33 H317 H336 H372 H410	Flammable liquid and vapour. Harmful if swallowed or if inhaled. May cause an allergic skin reaction. May cause drowsiness or dizziness. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.
Pı	recau	tionary statements	:	Prevention	:
				P210 P273 P280	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.
				Response:	
				P304 + P34 P314 P391	0 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Get medical advice/ attention if you feel unwell. Collect spillage.

### Hazardous components which must be listed on the label:

Permethrin (ISO) 1-Methoxy-2-propanol Indoxacarb (ISO)

### 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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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). Vapours may form explosive mixture with air.



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

### 3.2 Mixtures

Components Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Permethrin (ISO)	52645-53-1 258-067-9 613-058-00-2	Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 30 - < 50
		M-Factor (Acute aquatic toxicity): 10,000 M-Factor (Chronic aquatic toxicity): 10,000	
		Acute toxicity esti- mate	
		Acute oral toxicity: 500 mg/kg Acute inhalation tox- icity (dust/mist): 2.3 mg/l	
1-Methoxy-2-propanol	107-98-2 203-539-1 603-064-00-3	Flam. Liq. 3; H226 STOT SE 3; H336	>= 30 - < 50
Indoxacarb (ISO)	173584-44-6 607-700-00-0	Acute Tox. 3; H301 Acute Tox. 4; H332 Skin Sens. 1B; H317 STOT RE 1; H372 (Blood, Nervous sys- tem, Heart) Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 10 - < 20
		M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	

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			Acute toxicity esti- mate Acute oral toxicity: 179 mg/kg Acute inhalation tox- icity (dust/mist): 4.2 mg/l
For o	value of abbravi	ations app partian 16	179 mg/kg Acute inhalation tox-

For explanation of abbreviations see section 16.

### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

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. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.	
In case of skin contact	:	In case of contact, immediately flush skin with 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	:	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. Never give anything by mouth to an unconscious person.	
4.2 Most important symptoms a	nd e	effects, both acute and delayed	
Risks	:	Harmful if swallowed or if inhaled. May cause an allergic skin reaction. May cause drowsiness or dizziness. Causes damage to organs through prolonged or repeated exposure.	
		This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate	



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				or organophospha	ate poisoning.
4.3 In	dicatio	on of any immediate	mec	lical attention and	I special treatment needed
	Freatm	-	:		cally and supportively.
SECI	TION	5: Firefighting meas	sure	es	
5.1 Ex	xtingu	ishing media			
S	Suitable	e extinguishing media	:	Water spray Alcohol-resistant Carbon dioxide (C Dry chemical	
	Jnsuita nedia	ble extinguishing	:	High volume wate	er jet
5.2 Sp	pecial	hazards arising from	the	substance or mi	xture
	Specific ighting	e hazards during fire-	:	fire. Flash back possik Vapours may form	I water stream as it may scatter and spread ole over considerable distance. In explosive mixtures with air. Dustion products may be a hazard to health.
	Hazard ucts	ous combustion prod-	:	Carbon oxides Chlorine compour	nds
5.3 Ac	dvice	for firefighters			
		protective equipment ghters	:		e, wear self-contained breathing apparatus. rective equipment.
	Specific ods	c extinguishing meth-	:	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 d

### **SECTION 6: Accidental release measures**

# 6.1 Personal precautions, protective equipment and emergency procedures Personal precautions Remove all sources of ignition

Personal precautions	:	Remove all sources of ignition.
		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.



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		barriers). Retain and dis Local authoritie	Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.	
6.3 Metho	ds and material for c	ontainment and clea	aning up	
Methods for cleaning up		Soak up with in Suppress (kno spray jet. For large spills ment to keep r be pumped, st Clean up rema bent. Local or nation posal of this m employed in th mine which reg Sections 13 ar	tools should be used. hert absorbent material. ck down) gases/vapours/mists with a water s, provide dyking or other appropriate contain- naterial from spreading. If dyked material can ore recovered material in appropriate container. anining materials from spill with suitable absor- hal regulations may apply to releases and dis- aterial, as well as those materials and items the cleanup of releases. You will need to deter- gulations are applicable. hd 15 of this SDS provide information regarding r national requirements.	

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

### **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Technical measures	: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	<ul> <li>If sufficient ventilation is unavailable, use with local exhaust ventilation.</li> <li>Use explosion-proof electrical, ventilating and lighting equip- ment.</li> </ul>
Advice on safe handling	<ul> <li>Do not get on skin or clothing. Do not breathe mist or vapours. Do not swallow. Avoid contact with eyes. Wash skin thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment Non-sparking tools should be used. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product. Take care to prevent spills, waste and minimize release to the environment.</li> </ul>



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Hygiene measures		flushing place. \ work cle	sure to chemical is likely during typical use, provide eye systems and safety showers close to the working When using do not eat, drink or smoke. Contaminated othing should not be allowed out of the workplace. ontaminated clothing before re-use.	
7.2 Conditi	ions for safe storage,	including a	ny incompatibilities	
Requirements for storage areas and containers		tightly o accorda	Keep in properly labelled containers. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.	
Advice on common storage		Strong Self-rea Organic Flamma Pyroph Self-he Substa flamma Explosi Gases	store with the following product types: oxidizing agents active substances and mixtures e peroxides able solids oric liquids oric solids ating substances and mixtures nees and mixtures, which in contact with water, emit ble gases ves	
7.3 Specific end use(s)				

#### Specific use(s)

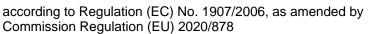
: No data available

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

### 8.1 Control parameters

### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Permethrin (ISO)	52645-53-1	TWA	80 µg/m3 (OEB 3)	Internal
		Wipe limit	800 µg/100 cm²	Internal
1-Methoxy-2- propanol	107-98-2	STEL	150 ppm 568 mg/m3	2000/39/EC
	Further inform skin, Indicativ		possibility of significant uptak	te through the
		TWA	100 ppm 375 mg/m3	2000/39/EC
	Further inform skin, Indicativ		possibility of significant uptal	through the
		OELV - 8 hrs (TWA)	100 ppm 375 mg/m3	IE OEL
		OELV - 15 min (STEL)	150 ppm 568 mg/m3	IE OEL





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	Indoxacarb (ISO)	173584-44- 6	TWA	50 µg/m3 (OEB 3)	Internal
	Further information: DSEN			•	
	Wipe limit		100 µg/100 cm2	Internal	

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

	· · ·	0 0	· · ·	
Substance name	End Use	Exposure routes	Potential health ef- fects	Value
1-Methoxy-2-propanol	Workers	Inhalation	Long-term systemic effects	369 mg/m3
	Workers	Inhalation	Acute systemic ef- fects	553.5 mg/m3
	Workers	Inhalation	Acute local effects	553.5 mg/m3
	Workers	Skin contact	Long-term systemic effects	183 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	43.9 mg/m3
	Consumers	Skin contact	Long-term systemic effects	78 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	33 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
1-Methoxy-2-propanol	Fresh water	10 mg/l
	Marine water	1 mg/l
	Freshwater - intermittent	100 mg/l
	Sewage treatment plant	100 mg/l
	Fresh water sediment	52.3 mg/kg dry
		weight (d.w.)
	Marine sediment	5.2 mg/kg dry
		weight (d.w.)
	Soil	4.59 mg/kg dry
		weight (d.w.)

### 8.2 Exposure controls

### **Engineering measures**

Minimize workplace exposure concentrations. If sufficient ventilation is unavailable, use with local exhaust ventilation. Use explosion-proof electrical, ventilating and lighting equipment.

Personal	protective	equipment
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Eye/face protection	: Wear the following personal protective equipment: Safety glasses Equipment should conform to I.S. EN 166
Hand protection	
Material	: Chemical-resistant gloves
Remarks	: Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous sub-



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Skin and body protection		determined fo applications, v chemicals of t glove manufac which may im hands before : Select approp resistance dat potential. Wear the follo If assessment	ecific to place of work. Breakthrough time is not r the product. Change gloves often! For special we recommend clarifying the resistance to he aforementioned protective gloves with the cturer. Take note that the product is flammable, pact the selection of hand protection. Wash breaks and at the end of workday. riate protective clothing based on chemical a and an assessment of the local exposure wing personal protective equipment: demonstrates that there is a risk of explosive or flash fires, use flame retardant antistatic
Respiratory protection Filter type		protective clot Skin contact n clothing (glove If adequate lo sure assessm ommended gu Equipment sh	

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

### 9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	Clear white to yellow.
Odour	:	ether-like
Odour Threshold	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	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
Flash point	:	33.5 °C

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	Auto-ię	gnition temperature	:	No data availabl	e
	Decon	nposition temperature	:	No data availabl	9
	рН		:	No data availabl	e
	Viscos Vis	ity cosity, kinematic	:	No data availabl	9
		lity(ies) ter solubility	:	No data availabl	9
		on coefficient: n- l/water	:	Not applicable	
	Vapou	r pressure	:	No data availabl	9
	Relativ	ve density	:	1.096	
	Densit	У	:	No data availabl	9
	Relativ	ve vapour density	:	No data availabl	9
		e characteristics ticle size	:	Not applicable	
9.2	9.2 Other information				
	Explos	sives	:	Not explosive	
	Oxidiz	ing properties	:	The substance of	r mixture is not classified as oxidizing.
	Evapo	ration rate	:	No data availabl	9
	Molec	ular weight	:	No data availabl	e

### **SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b> Not classified as a reactivity	hazard.
<b>10.2 Chemical stability</b> Stable under normal condition	ons.
10.3 Possibility of hazardous re	eactions
Hazardous reactions	<ul> <li>Flammable liquid and vapour.</li> <li>Vapours may form explosive mixture with air.</li> <li>Can react with strong oxidizing agents.</li> </ul>
10.4 Conditions to avoid	
Conditions to avoid	: Heat, flames and sparks.



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#### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents

### **10.6 Hazardous decomposition products**

No hazardous decomposition products are known.

### **SECTION 11: Toxicological information**

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure	:	Inhalation Skin contact Ingestion Eye contact
Acute toxicity Harmful if swallowed or if inhal	ام ما	
	ea.	
Product: Acute oral toxicity	:	Acute toxicity estimate: 609.38 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: 4.48 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Components:		
Permethrin (ISO):		
Acute oral toxicity	:	LD50 (Rat): 480 - 554 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 2.3 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg
1-Methoxy-2-propanol:		
Acute oral toxicity	:	LD50 (Rat): 4,016 mg/kg
Acute inhalation toxicity	:	LC50 (Mouse): < 22.2 mg/l Exposure time: 6 h Test atmosphere: vapour
Acute dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity



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Indox	acarb (ISO):			
	oral toxicity	:		nale): 179 mg/kg ss of reflexes, Breathing difficulties, Tremors
			LD50 (Rat, ma	ale): 843 mg/kg
Acute inhalation toxicity		:	LC50 (Rat, fer Exposure time Test atmosphe	: 4 h
Acute	dermal toxicity	:	LD50 (Rat, ma	ale and female): > 5,000 mg/kg
	corrosion/irritation assified based on ava	ailable	information.	
Comp	onents:			
Perme	ethrin (ISO):			
Specie Result		:	Rabbit No skin irritatio	on
1-Met	hoxy-2-propanol:			
Specie Result		:	Rabbit No skin irritatio	on
Indox	acarb (ISO):			
Result	t	:	No skin irritatio	n
	us eye damage/eye i assified based on ava	<b>ye irritation</b> available information.		
<u>Comp</u>	onents:			
Perme	ethrin (ISO):			
Specie Result		:	Rabbit No eye irritatio	n
1-Met	hoxy-2-propanol:			
Specie Result		:	Rabbit No eye irritatio	pn
	acarb (ISO):			
Result	t	:	No eye irritatio	n
Respi	ratory or skin sensi	tisatio	n	
Skin s	sensitisation			

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Resp	iratory sensitisation		
Not c	lassified based on ava	ailable information.	
Com	ponents:		
Perm	ethrin (ISO):		
Speci Resu	sure routes ies	: Buehler Tes : Skin contact : Guinea pig : positive : Probability c	
1-Mo	thowy 2 propagal		
Test <sup>-</sup>	sure routes ies	: Maximisatio : Skin contact : Guinea pig : negative	
Indox	(ISO):		
Test Speci Resu	ies	: Maximisatio : Guinea pig : positive	n Test
Not c <u>Com</u>	n cell mutagenicity lassified based on ava ponents:	ailable information.	
	ethrin (ISO): toxicity in vitro	: Test Type: E Result: nega	Bacterial reverse mutation assay (AMES) ative
		Test Type: I Result: nega	n vitro mammalian cell gene mutation test ative
		Test Type: 0 Result: nega	Chromosome aberration test in vitro ative
			DNA damage and repair, unscheduled DNA syn- mmalian cells (in vitro) ative
		Test Type: 0 Result: posi	Chromosome aberration test in vitro tive
Geno	toxicity in vivo	: Test Type: M cytogenetic Species: Mo Result: nega	buse

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		Test Typ Species: Result: n	
		cytogene Species:	on Route: Intraperitoneal injection
		cytogene Species:	on Route: Ingestion
	rm cell mutagenicity- As- ssment	: Weight o cell muta	f evidence does not support classification as a germ gen.
1-N	1-Methoxy-2-propanol:		
Ge	notoxicity in vitro	: Test Typ Result: n	e: Bacterial reverse mutation assay (AMES) egative
		Test Typ Result: n	e: Chromosome aberration test in vitro egative
		Test Typ Result: n	e: In vitro mammalian cell gene mutation test egative
		Test Typ malian ce Result: e	
		thesis in	e: DNA damage and repair, unscheduled DNA syn- mammalian cells (in vitro) OECD Test Guideline 482 egative
Ge	notoxicity in vivo	cytogene Species:	on Route: Intraperitoneal injection
Inc	loxacarb (ISO):		
	notoxicity in vitro	: Test Typ Result: n	e: Bacterial reverse mutation assay (AMES) egative



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			e: Chromosomal aberration em: mammalian cells egative
			e: In vitro mammalian cell gene mutation test em: Chinese hamster ovary cells egative
Geno	toxicity in vivo	Species:	Bone marrow
	nogenicity		
	assified based on ava	ilable information	٦.
	oonents:		
	ethrin (ISO):		
Speci Resul		: Rat : negative	
Speci Resul		: Mouse : negative	
1-Met	hoxy-2-propanol:		
Speci		: Rat	
	ation Route	: inhalation	(vapour)
Expos	sure time		est Guideline 453
Resul		: negative	
Indox	acarb (ISO):		
Speci			and female
	ation Route	: oral (feed : 2 Years	)
	sure time ency of Treatment	: daily	
Resul		: negative	
Speci			ale and female
	ation Route	: oral (feed	
	sure time ency of Treatment	: 18 Month : daily	8
Resul		: negative	
	oductive toxicity		



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	<u>Compo</u>	nents:			
		ermethrin (ISO): ffects on fertility		Test Type: Two-go Species: Rat Application Route Result: negative	eneration reproduction toxicity study
	Effects of ment	on foetal develop-	:		ned repeated dose toxicity study with the lopmental toxicity screening test : Ingestion
		oxy-2-propanol: on fertility	:	Species: Rat	eneration reproduction toxicity study : inhalation (vapour) est Guideline 416
	Effects of ment	on foetal develop-	:	Species: Rat	o-foetal development : inhalation (vapour)
	Indoxad	carb (ISO):			
		on fertility	:	Test Type: Two-ge Species: Rat Application Route General Toxicity F Result: negative	
				General Toxicity F	: Oral Parent: NOAEL: 1.3 mg/kg body weight 1: NOAEL: > 6.7 mg/kg body weight kic effects and adverse effects on the off-
	Effects of ment	on foetal develop-	:	Test Type: Develo Species: Rat Developmental To Result: No teratog	xicity: NOAEL: 2 mg/kg body weight
				Test Type: Develo Species: Rabbit Application Route Developmental To Result: No advers	: Oral pxicity: NOAEL: 500 mg/kg body weight

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		Species: Ra Application	
		Species: Ra Application	
	<b>- single exposure</b> cause drowsiness or d	izziness.	
<u>Com</u>	oonents:		
1-Met	thoxy-2-propanol:		
Asses	ssment	: May cause	drowsiness or dizziness.
STO	- repeated exposure	9	
			or repeated exposure.
<u>Com</u>	oonents:		
Indox	(acarb (ISO):		
-	et Organs ssment		ous system, Heart nage to organs through prolonged or repeated
Repe	ated dose toxicity		
Com	oonents:		
-	ethrin (ISO):		
		: Rat : 0.2201 mg/l : Inhalation : 90 Days	
		: Rat : 175 mg/kg : Ingestion : 90 Days	
1-Met	thoxy-2-propanol:		
		: Rat : 919 mg/kg : Ingestion : 35 Days	
Speci NOAI		: Rat : 1.1 mg/l	

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Ex	plication Route posure time thod	: inhalation (vap : 2 yr : OECD Test Gu	
NC Ap	ecies DAEL plication Route posure time	: Rabbit : 1,838 mg/kg : Skin contact : 90 Days	
Inc	loxacarb (ISO):		
Sp NC LO Ap Ex	ecies DAEL AEL plication Route posure time rget Organs	: Rat, male and : 1.7 mg/kg : 4.1 mg/kg : Oral : 90 d : Blood, Central	female nervous system
NC LO Ap Ex	ecies DAEL AEL plication Route posure time rget Organs	: Rat, male and : 50 mg/kg : 500 mg/kg : Dermal : 28 d : Blood	female
NC LO Ap Ex	ecies DAEL AEL plication Route posure time rget Organs	: Rat : 4.6 mg/m3 : 23 mg/m3 : Inhalation : 4 Weeks : Blood, Lungs	
NC LO Ap Ex	ecies DAEL AEL plication Route posure time rget Organs	: Rat, male and : 1 mg/kg : 2 mg/kg : Oral : 1 yr : Blood	female
NC LO Ap Ex	ecies DAEL AEL plication Route posure time rget Organs	: Dog : 1 mg/kg : 2 mg/kg : Oral : 1 yr : Blood	
NC LO Ap Ex	ecies DAEL AEL plication Route posure time rget Organs	: Mouse : 3 mg/kg : 14 mg/kg : oral (feed) : 18 Months : Nervous syste	m, Heart



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#### Aspiration toxicity

Not classified based on available information.

### 11.2 Information on other hazards

#### Endocrine disrupting properties

#### Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### Experience with human exposure

#### Components:

### Indoxacarb (ISO):

**General Information** 

: No human information is available.

### **SECTION 12: Ecological information**

### 12.1 Toxicity

### **Components:**

### Permethrin (ISO):

Permethrin (150):		
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 Exposure time: 72 h
		EC10 (Pseudokirchneriella subcapitata (green algae)): 0.0023 mg/l Exposure time: 72 h
M-Factor (Acute aquatic tox- icity)	:	10,000
Toxicity to microorganisms	:	EC50 : > 1,000 mg/l Exposure time: 3 h
Toxicity to fish (Chronic tox- icity)	:	NOEC: 0.00041 mg/l Exposure time: 35 d Species: Danio rerio (zebra fish) Method: OECD Test Guideline 210



according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878

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		y to daphnia and other invertebrates (Chron- ity)	:	NOEC: 0.0047 µg Exposure time: 21 Species: Daphnia Method: OECD Te	l d magna (Water flea)
	M-Fact toxicity	or (Chronic aquatic )	:	10,000	
		<b>oxy-2-propanol:</b> y to fish	:	LC50 (Leuciscus i Exposure time: 96 Method: DIN 3841	
		y to daphnia and other invertebrates	:	EC50 (Daphnia m Exposure time: 48	agna (Water flea)): 23,300 mg/l 3 h
	Toxicity plants	y to algae/aquatic	:	ErC50 (Skeletone Exposure time: 72 Method: ISO 1025	
	Toxicity	y to microorganisms	:	IC50 : > 1,000 mg Exposure time: 3 Method: OECD Te	h
	Indoxa	icarb (ISO):			
		y to fish	:	LC50 (Oncorhync Exposure time: 96 Method: OECD Te	
				LC50 (Lepomis m Exposure time: 96 Method: OECD Te	
		/ to daphnia and other invertebrates	:	EC50 (Daphnia m Exposure time: 48 Method: OECD Te	
	Toxicity plants	y to algae/aquatic	:	EC50 (Pseudokiro mg/l Exposure time: 72	chneriella subcapitata (green algae)): > 0.6 2 h
				NOEC (Pseudokir mg/l Exposure time: 72	rchneriella subcapitata (green algae)): 0.46 2 h
	M-Fact icity)	or (Acute aquatic tox-	:	1	
		y to daphnia and other invertebrates (Chron- ity)	:	Exposure time: 21	d magna (Water flea)
	M-Fact	or (Chronic aquatic	:	1	



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	toxicity	<b>'</b> )								
12.2	12.2 Persistence and degradability									
Components:										
	Perme	thrin (ISO):								
Biodegradability		:	Result: Not readil Method: OECD T	ly biodegradable. est Guideline 301F						
	1-Meth	oxy-2-propanol:								
	Biodeg	gradability	:	Result: Readily b Biodegradation: Exposure time: 2 Method: OECD T	96 %					
12.:	3 Bioac	cumulative potential								
	Comp	onents:								
	Perme	thrin (ISO):								
	Bioaco	umulation	:		s macrochirus (Bluegill sunfish) factor (BCF): 570					
		on coefficient: n- I/water	:	log Pow: 4.67						
	Partitic	n <b>oxy-2-propanol:</b> on coefficient: n- I/water	:	log Pow: < 1						
	Indoxa	acarb (ISO):								
		on coefficient: n- I/water	:	log Pow: 4.65						
12.4	4 Mobili	ty in soil								
	<u>Comp</u>	onents:								
	Distrib	acarb (ISO): ution among environ- compartments	:	log Koc: 3.9						
12.	12.5 Results of PBT and vPvB assessment									
	<u>Produ</u> Assess		:	to be either persis	nixture contains no components considered stent, bioaccumulative and toxic (PBT), or nd very bioaccumulative (vPvB) at levels of					



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#### **12.6 Endocrine disrupting properties**

### Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### 12.7 Other adverse effects

No data available

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

#### 13.1 Waste treatment methods

Product	:	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.
Contaminated packaging	:	Empty containers should be taken to an approved waste han- dling site for recycling or disposal. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or ex- pose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product.

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

### 14.1 UN number or ID number

ADN	:	UN 3092
ADR	:	UN 3092
RID	:	UN 3092
IMDG	:	UN 3092
ΙΑΤΑ	:	UN 3092
14.2 UN proper shipping name		
ADN	:	1-METHOXY-2-PROPANOL, SOLUTION
ADR	:	1-METHOXY-2-PROPANOL, SOLUTION
RID	:	1-METHOXY-2-PROPANOL, SOLUTION
IMDG	:	1-METHOXY-2-PROPANOL, SOLUTION (Permethrin (ISO), Indoxacarb (ISO))
ΙΑΤΑ	:	1-Methoxy-2-propanol, solution

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



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14.3 Tran	sport hazard class(es)			
			Class	Subsidiary risks
ADN		:	3	
ADR		:	3	
RID		:	3	
IMDO	<b>i</b>	:	3	
ΙΑΤΑ		:	3	
14.4 Pack	ing group			
Class	ng group ification Code rd Identification Number s	:	III F1 30 3	
Class Haza Label	ng group ification Code rd Identification Number s el restriction code	:	III F1 30 3 (D/E)	
Class	ng group ification Code rd Identification Number s	:	III F1 30 3	
Labe	ng group	:	III 3 F-E, S-D	
Packi aircra	<b>(Cargo)</b> ng instruction (cargo lft) ng instruction (LQ)	:	366 Y344	
	ng group	:	III Flammable Liquid	ds
Packi ger a	(Passenger) ng instruction (passen- ircraft)	:	355	
	ng instruction (LQ) ng group s	:	Y344 III Flammable Liquid	ds
14.5 Envi	ronmental hazards			
ADN Envir ADR	onmentally hazardous	:	yes	



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	Enviror	nmentally hazardous	:	yes	
	<b>RID</b> Environmentally hazardous			yes	
	<b>IMDG</b> Marine	pollutant	:	yes	
14.6 Special precautions for use					

#### opecial precautions for use

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 Maritime transport in bulk according to IMO instruments

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

REACH - Restrictions on the manufacture, placing on : Conditions of restriction for the folthe market and use of certain dangerous substances, lowing entries should be considered: mixtures and articles (Annex XVII) Number on list 3 Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor. Substance(s) or mixture(s) are listed here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the restriction. Please refer to the conditions in corresponding Regulation to determine whether an entry is applicable to the placing on the market or not. REACH - Candidate List of Substances of Very High Not applicable : Concern for Authorisation (Article 59). Regulation (EC) on substances that deplete the ozone Not applicable : layer Regulation (EU) 2019/1021 on persistent organic pollu-Not applicable : tants (recast) Regulation (EU) No 649/2012 of the European Parlia-Indoxacarb (ISO) : ment and the Council concerning the export and import Permethrin (ISO) of dangerous chemicals REACH - List of substances subject to authorisation : Not applicable (Annex XIV) Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.



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E1		ENVIRONMEN	ΓAL	Quantity 1 100 t	Quantity 2 200 t
P5c		HAZARDS FLAMMABLE L	IQUIDS	5,000 t	50,000 t

### Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

#### 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 inform	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-Statemen	ts						
H226	: Flammable liquid and vapour.						
H301	: Toxic if swallowed.						
H302	: Harmful if swallowed.						
H317	: May cause an allergic skin reaction.						
H332	: Harmful if inhaled.						
H336	: May cause drowsiness or dizziness.						
H372	<ul> <li>Causes damage to organs through prolonged or repeated exposure.</li> </ul>						
H400	: Very toxic to aquatic life.						
H410	: Very toxic to aquatic life with long lasting effects.						
Full text of other abbre	viations						
Acute Tox.	: Acute toxicity						
Aquatic Acute	: Short-term (acute) aquatic hazard						
Aquatic Chronic	: Long-term (chronic) aquatic hazard						
Flam. Liq.	: Flammable liquids						
Skin Sens.	: Skin sensitisation						
STOT RE	: Specific target organ toxicity - repeated exposure						
STOT SE	: Specific target organ toxicity - single exposure						
2000/39/EC	: Europe. Commission Directive 2000/39/EC establishing a first						
IE OEL	list of indicative occupational exposure limit values : Ireland. List of Chemical Agents and Carcinogens with Occu-						
	. Ireland. List of Chemical Agents and Carcinogens with Occu-						

according to Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2020/878



### Indoxacarb / Permethrin Formulation

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2000/ IE OE	39/EC / TWA 39/EC / STEL L / OELV - 8 hrs (TWA) L / OELV - 15 min _)	and 2 : Limit Value - eig : Short term expo : Occupational eig	

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 associated 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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Sources of key data used to :	Internal technical data, data from raw material SDSs, OECD
compile the Safety Data	eChem Portal search results and European Chemicals Agen-
Sheet	cy, http://echa.europa.eu/

Classification of the mixture:		Classification procedure:
Flam. Liq. 3	H226	Based on product data or assessment
Acute Tox. 4	H302	Calculation method
Acute Tox. 4	H332	Calculation method
Skin Sens. 1	H317	Calculation method



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### Indoxacarb / Permethrin Formulation

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STOT	SE 3	H336	Calculation method	
STOT	RE 1	H372	Calculation method	
Aquat	ic Acute 1	H400	Calculation method	
Aquat	ic Chronic 1	H410	Calculation method	

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.

IE / EN