

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name **STING**
Surgical medical device n° **19243**
UFI : **AN10-J0QN-D002-7WFM**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Insecticide in emulsifiable concentrate with rapid killing effect. For civil use.**

Identified Uses	Industrial	Professional	Consumer
Insecticides	-	✓	✓

Uses Advised Against

All uses other than those recommended

1.3. Details of the supplier of the safety data sheet

Name **COLKIM S.r.l.**
Full address **Via Piemonte, 50**
District and Country **40064 OZZANO EMILIA (BO)**
Italia
Tel. 051 / 799445
Fax 051 / 797555

e-mail address of the competent person

responsible for the Safety Data Sheet
Supplier:

info@colkim.it
COLKIM S.r.l. - Via Piemonte, 50 - 40064 OZZANO E. (BO)

1.4. Emergency telephone number

For urgent inquiries refer to **118**
Contact a poison control center:

Nane	City	Address	Zip code	Phone
CAV "Osp. Pediatrico Bambino Gesù"	Roma	P.zza Sant'Onofrio, 4	00165	06 68593726
Az. Osp. Univ. Foggia	Foggia	V.le Luigi pinto, 1	71122	0881 732326
Az. Osp. "A. Cardarelli"	Napoli	Via A. Cardarelli, 9	80131	081 7472870
CAV Policlinico "Umberto I"	Roma	V.le del policlinico, 155	00161	06 49978000
CAV Policlinico "A. Gemelli"	Roma	Largo Agostino Gemelli, 8	00168	06 3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica	Firenze	Largo Brambilla, 3	50134	055 7947819
CAV Centro Nazionale di Informazione Tossicologica	Pavia	Via Salvatore Maugeri, 10	27100	0382 24444
Osp. Niguarda Ca' Granda	Milano	P.zza Ospedale Maggiore,3	20162	02 66101029
Azienda Ospedaliera Papa Giovanni XXII	Bergamo	P.zza OMS, 1	24127	800883300
CAV centro antiveleni Verona	Verona	Piazzale Aristide Stefani,1	37126	800011858

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, acute toxicity, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 1	H410	Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words:

Warning

Hazard statements:

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P102	Keep out of reach of children.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P391	Collect spillage.
P501	Dispose of contents / container to . . .

Contains:

PERMETHRIN

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration $\geq 0.1\%$.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
DIPROPYLENE GLYCOL MONOMETHYL ETHER INDEX - EC 252-104-2 CAS 34590-94-8 REACH Reg. 01-2119450011-60	$58 \leq x < 62$	Substance with a community workplace exposure limit.
PIPERONYL BUTOXIDE INDEX - EC 200-076-7 CAS 51-03-6 REACH Reg. 01-2119537431-46-0000	$13,5 \leq x < 15$	Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
PERMETHRIN INDEX 613-058-00-2 EC 258-067-9 CAS 52645-53-1	$13,5 \leq x < 15$	Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1000, Aquatic Chronic 1 H410 M=1000 LD50 Oral: 664 mg/kg, LC50 Inhalation mists/powders: 4,638 mg/l/4h
POLIARILFENOLO ETOSSILATO INDEX EC - CAS 99734-09-5	$4,5 \leq x < 5$	Aquatic Chronic 3 H412
BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., CALCIUM SALT INDEX - EC 932-231-6 CAS - REACH Reg. 01-2119560592-37-0018	$2 \leq x < 2,5$	Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Chronic 3 H412
2-ETHYLHEXANOL INDEX - EC 203-234-3 CAS 104-76-7 REACH Reg. 01-2119487289-20-0030	$2 \leq x < 2,5$	Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335 STA Inhalation vapours: 11 mg/l
PRALLETHRIN INDEX 607-431-00-9 EC 245-387-9 CAS 23031-36-9 REACH Reg. 05-2116475244-44-0000	$1,5 \leq x < 2$	Acute Tox. 3 H331, Acute Tox. 4 H302, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10 LD50 Oral: 460 mg/kg, STA Inhalation vapours: 3 mg/l

BUTYLHYDROXYTOLUENE

INDEX - 0,1 ≤ x < 0,15 Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1

EC 204-881-4

CAS 128-37-0

REACH Reg. 01-2119565113-46-0000

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures**4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures**5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture**HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

Do not breathe combustion products.

5.3. Advice for firefighters**GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

PIPERONYL BUTOXIDE

It have not been set official limits of exposure for the product

8.1. Control parameters

Regulatory References:

ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	ITA	308	50			SKIN
WEL	GBR	308	50			SKIN
OEL	EU	308	50			SKIN
TLV-ACGIH			50			

Predicted no-effect concentration - PNEC

Normal value in fresh water	19	mg/l
Normal value in marine water	1,9	mg/l
Normal value for fresh water sediment	70,2	mg/kg/d
Normal value for marine water sediment	7,02	mg/kg/d
Normal value for water, intermittent release	190	mg/l

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Chronic systemic	Effects on workers			Chronic systemic
	Acute local	Acute systemic	Chronic local		Acute local	Acute systemic	Chronic local	
Oral			VND	36 mg/kg bw/d				
Inhalation			VND	37.2 mg/m3			VND	308 mg/kg
Skin			VND	121 mg/kg bw/d			VND	283 mg/kg bw/d

PIPERONYL BUTOXIDE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00148	mg/l
Normal value in marine water	0,000148	mg/l
Normal value for fresh water sediment	0,043	mg/kg
Normal value for marine water sediment	0,0043	mg/kg
Normal value of STP microorganisms	2,89	mg/l
Normal value for the terrestrial compartment	0,111	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Chronic systemic	Effects on workers			Chronic systemic
	Acute local	Acute systemic	Chronic local		Acute local	Acute systemic	Chronic local	
Oral				0,221 mg/kg bw/d				
Inhalation				0.388 mg/m3				1,6 mg/m3
Skin				0,221 mg/kg bw/d				0,443 mg/kg bw/d

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., CALCIUM SALT

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,023	mg/l
Normal value in marine water	0,0023	mg/l
Normal value for fresh water sediment	0,174	mg/kg
Normal value for marine water sediment	0,0174	mg/kg
Normal value of STP microorganisms	3	mg/l

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Skin				85 mg/kg/d				1,7 mg/kg/d

2-ETHYLHEXANOL

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	

OEL EU 5,4 1

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,017	mg/l
Normal value in marine water	0,0017	mg/l
Normal value for fresh water sediment	0,28	mg/kg
Normal value for marine water sediment	0,028	mg/kg
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,047	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,1 mg/kg bw/d				
Inhalation	53,2 mg/m3	2,3 mg/m3		11,4 mg/kg	106,4 mg/m3	53,2 mg/m3		23 mg/kg
Skin				11,4 mg/kg/d				23 mg/kg/d

BUTYLHYDROXYTOLUENE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,000199	mg/l
Normal value in marine water	0,0000199	mg/l
Normal value for fresh water sediment	0,0996	mg/kg
Normal value for marine water sediment	0,00996	mg/kg
Normal value for water, intermittent release	0,000199	mg/l
Normal value for the food chain (secondary poisoning)	8,33	mg/kg
Normal value for the terrestrial compartment	0,04769	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		0,25		0,25 mg/kg/d				
Inhalation				0,86 mg/m3				3,5 mg/m3
Skin				0,25 mg/kg/d				0,5 mg/kg/d


Legend:


(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED =

medium hazard ; HIGH = high hazard.

8.2. Exposure controls

8.2.1 APPROPRIATE ENGINEERING CONTROLS	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.</p>	
	Type of Contaminant:	Air Speed:
	solvent, vapours, degreasing etc., evaporating from tank (in still air)	0.25-0.5 m/s (50-100 f/min)
	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min)
	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)
	Within each range the appropriate value depends on:	
	Lower end of the range	Upper end of the range
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
	2: Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity
8.2.2 PERSONAL PROTECTION	3: Intermittent, low production.	3: High production, heavy use
	4: Large hood or large air mass in motion	4: Small hood - local control only
	<p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p>	
		
	<p>Eye and face protection</p> <p>Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</p>	
Skin protection	See Hand protection below	
Hands/feet protection	<p>Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p>	

	COLKIM S.r.l.	Revision nr. 4 Dated 21/11/2022 Printed on 21/11/2022
	STING	Page n. 9/20 Replaced revision:5

	<p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> - frequency and duration of contact - chemical resistance of glove material - glove thickness - dexterity. <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> - When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. -When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. - Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. -Contaminated gloves should be replaced. <p>As defined in ASTM F-739-96 in any application, gloves are rated as:</p> <ul style="list-style-type: none"> - Excellent when breakthrough time > 480 min. - Good when breakthrough time > 20 min. - Fair when breakthrough time < 20 min. - Poor when glove material degrades <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times. Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> -Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of. -Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential. <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p>
Body protection	See Other protection below
Other protection	Overalls.P.V.C apron. Barrier cream. Skin cleansing cream. Eye wash unit.
Environmental exposure controls	Emissions from manufacturing processes, including those from ventilation equipment, should be controlled for compliance with environmental protection legislation. Product residues must not be discharged without control into wastewater or water courses.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	Method:OPPTS 830.6303
Colour	lightly yellow	Method:OPPTS 830.6302
Odour	characteristic	Method:OPPTS 830.6304
Melting point / freezing point	not determined	Reason for missing data: Determination not required for safe use of the product
Initial boiling point	not available	Method:OECD test 103
Flammability	not determined	Reason for missing data: Determination not required for safe use of the product
Lower explosive limit	not determined	Reason for missing data: Determination not required for safe use of the product
Upper explosive limit	not determined	Reason for missing data: Determination not required for safe use of the product
Flash point	not determined	Reason for missing data: Determination not required for safe use of the product
Auto-ignition temperature	not determined	Reason for missing data: Determination not required for safe use of the product
Decomposition temperature	not applicable	Reason for missing data:The mixture is not

pH	5 - 6	selfreative
Kinematic viscosity	not determined	Method:OECD test 122
Solubility	emulsionable	Reason for missing data: Determination not required for safe use of the product
Partition coefficient: n-octanol/water	not applicable	Remark:The product was designed to be mixed with water
Vapour pressure	not available	Reason for missing data:Not determinable for mixture
Density and/or relative density	0,95 - 1,05 g/ml	Reason for missing data: Determination not required for safe use of the product
Relative vapour density	not determined	Method:OECD test 109
Particle characteristics		Reason for missing data: Determination not required for safe use of the product
		Not necessary because the product is liquid

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU) 72,60 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Forms peroxides with: air.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

PERMETHRIN

Stable in normal conditions of use and storage °C.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

DIPROPYLENE GLYCOL MONOMETHYL ETHER

May react violently with: strong oxidising agents.

PERMETHRIN

Reacts with: oxidising agents.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Avoid exposure to: sources of heat.Possibility of explosion.

PIPERONYL BUTOXIDE

Tenere lontano da: luce

PERMETHRIN

Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials**PERMETHRIN**

Keep away from: alkalis.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

PIPERONYL BUTOXIDE

Oral toxicity: acute LD50 (rat): 4570 mg/Kg (males) 7220 mg/Kg (females)

Dermal acute toxicity (rabbit): LD50 > 2000 mg/Kg

Acute inhalation toxicity: LC50 (rat) > 5,9 mg/L (4 h)

Irritability: non irritant

Cutaneous sensitization: not sensitizing .

PERMETHRIN

Oral toxicity: acute LD50 (rat): 1476 mg/Kg (WHO > 500 mg/Kg)

Dermal acute toxicity (rabbit): LD50 > 4000 mg/Kg

Acute inhalation toxicity: LC50 (rat) > 23,5 mg/L (4 h)

Adverse effects: the substance is a low toxic pyrethroid insecticide.

POLIARILFENOLO ETOSSILATO

LD50 oral (rat) > 5000 mg/Kg

LD50 dermal (rat) > 2000 mg/Kg.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	> 5 mg/l
ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Inhalation - gas) of the mixture:	0,0 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

DIPROPYLENE GLYCOL MONOMETHYL ETHER

LD50 (Dermal):	9510 mg/kg Coniglio
LD50 (Oral):	5000 mg/kg Ratto
LC50 (Inhalation vapours):	3,35 mg/l/4h Ratto

PIPERONYL BUTOXIDE

LD50 (Dermal):	> 2000 mg/kg Coniglio
LD50 (Oral):	4570 mg/kg ratto maschio
LC50 (Inhalation vapours):	> 5,9 mg/l/4h ratto

PERMETHRIN

LD50 (Dermal):	> 2000 mg/kg Ratto
LD50 (Oral):	664 mg/kg Ratto
LC50 (Inhalation mists/powders):	4,638 mg/l/4h Ratto

POLIARILFENOLO ETOSSILATO

LD50 (Dermal):	> 2000 mg/kg
LD50 (Oral):	> 5000 mg/kg

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., CALCIUM SALT

LD50 (Dermal):	> 2000 mg/kg Specie: ratto
LD50 (Oral):	4445 mg/kg Specie: ratto

2-ETHYLHEXANOL

LD50 (Dermal):	> 3000 mg/kg Specie:ratto
LD50 (Oral):	3290 mg/kg Specie: ratto
LC50 (Inhalation vapours):	5,3 mg/kg Specie: ratto
STA (Inhalation vapours):	11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

PRALLETHRIN

LD50 (Dermal):	> 2000 mg/kg
LD50 (Oral):	460 mg/kg
LC50 (Inhalation vapours):	> 0,47 mg/l
STA (Inhalation vapours):	3 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

BUTYLHYDROXYTOLUENE

LD50 (Dermal):	> 2000 mg/kg
LD50 (Oral):	> 2930 mg/kg

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

2-ETHYLHEXANOL

LC50 - for Fish	28,2 mg/l/96h PESCE
EC50 - for Crustacea	39 mg/l/48h SPECIE DAPHNIA
EC50 - for Algae / Aquatic Plants	11,5 mg/l/72h

PERMETHRIN

LC50 - for Fish	0,145 mg/l/96h PESCI Carpa (Cyprinus carpio)
EC50 - for Crustacea	0,32 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 0,022 mg/l/72h ALGHE(Scenedesmus subspicatus)

PRALLETHRIN

LC50 - for Fish	0,0176 mg/l/96h SPECIE BRACHYDANIO RERIO
EC50 - for Crustacea	0,019 mg/l/48h SPECIE DAPHNIA MAGNA
EC50 - for Algae / Aquatic Plants	4,9 mg/l/72h SPECIE SCENEDESMUS SUBSPICATUS
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l Scenedesmus subspicatus

BUTYLHYDROXYTOLUENE

LC50 - for Fish	> 57 mg/l/96h Danio Rerio
EC50 - for Crustacea	61 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 4 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	316 mg/l

PIPERONYL BUTOXIDE

LC50 - for Fish	3,94 mg/l/96h SPECIE CYPRINODON VARIEGATUS
EC50 - for Crustacea	0,51 mg/l/48h SPECIE DAPHNIA MAGNA
EC50 - for Algae / Aquatic Plants	3,89 mg/l/72h SPECIE SELENASTRUM CAPRICORNUTUM
Chronic NOEC for Fish	0,18 mg/l (Pimephales promelas)
Chronic NOEC for Crustacea	0,03 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	0,824 mg/l

DIPROPYLENE GLYCOL MONOMETHYL ETHER

LC50 - for Fish	10000 mg/l/96h
EC50 - for Crustacea	1919 mg/l/48h
EC50 - for Algae / Aquatic Plants	6999 mg/l/72h
Chronic NOEC for Crustacea	0,5 mg/l

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., CALCIUM SALT

LC50 - for Fish	10 mg/l/96h
EC50 - for Crustacea	2,9 mg/l/48h Specie: Dafnie
EC50 - for Algae / Aquatic Plants	29 mg/l/72h

12.2. Persistence and degradability

PRALLETHRIN

Solubility in water 4,98 mg/l

BUTYLHYDROXYTOLUENE

NOT rapidly degradable

PIPERONYL BUTOXIDE

Solubility in water 28,9 mg/l

NOT rapidly degradable

**DIPROPYLENE GLYCOL MONOMETHYL
ETHER**

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

12.3. Bioaccumulative potential**PRALLETHRIN**

BCF 46 L*kg

PIPERONYL BUTOXIDE

Partition coefficient: n-octanol/water 4,8

**DIPROPYLENE GLYCOL MONOMETHYL
ETHER**

Partition coefficient: n-octanol/water 1,01

12.4. Mobility in soil**PRALLETHRIN**

Partition coefficient: soil/water 3,12

BUTYLHYDROXYTOLUENE

Partition coefficient: soil/water 4,362 l/kg

**DIPROPYLENE GLYCOL MONOMETHYL
ETHER**

Partition coefficient: soil/water 0,28

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity \leq 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity \leq 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity \leq 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PIPERONYL BUTOXIDE; PERMETHRIN)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PIPERONYL BUTOXIDE; PERMETHRIN)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PIPERONYL BUTOXIDE; PERMETHRIN)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant



IATA: Environmentally
Hazardous



14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90	Limited Quantities: 5 L	Tunnel restriction code: (-)
IMDG:	Special provision: - EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Pass.:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: E1

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3

Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

PERMETHRIN

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

This safety data sheet contains one or more Exposure Scenarios in an integrated form. Contents have been included in sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
 4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
 13. Regulation (EU) 2017/776 (X Atp. CLP)
 14. Regulation (EU) 2018/669 (XI Atp. CLP)
 15. Regulation (EU) 2019/521 (XII Atp. CLP)
 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
 17. Regulation (EU) 2019/1148
 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - IFA GESTIS website
 - ECHA website
 - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 05 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.