

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date 04-Jun-2023

Revision Number 1

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

1.1. Product identifier

Product Name PERMETHROL PLUS

Product Code(s) TP.7007.V.1___ISR

Chemical name Permethrin 100 Piperonyl butoxide 400 SC

Pure substance/mixture Mixture

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

Recommended use Insecticide; For professional users only

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Tapazol Chemical Works Ltd.
1st HaSolela st.
West. Ind. Zone
Beit Shemesh, Israel 9905415
Tel: +972-2-992-6040
Fax: +972-2-9926050
For further information, please contact sds@tapazol.co.il

1.4. Emergency telephone number

Emergency Telephone +972 4 777 1900
National Institute for Information on Poisoning
Rambam Health Care Campus, Haifa, Israel

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Specific target organ toxicity (single exposure)	Category 3 - (H335)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements

Piperonyl butoxide; Permethrin



Signal word

Warning

Hazard statements

H335 - May cause respiratory irritation

H410 - Very toxic to aquatic life with long lasting effects

EUH066 - Repeated exposure may cause skin dryness or cracking

EUH208 - Contains (Permethrin). May produce an allergic reaction

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Precautionary Statements - EU (§28, 1272/2008)

P102 - Keep out of reach of children

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

P391 - Collect spillage

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

Additional information

SP1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards

Chemical name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disrupters - Evaluated Substances
Permethrin (ISO)	Group III Chemical	-

SECTION 3: Composition/information on ingredients
3.1 Substances

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Piperonyl butoxide	-	51-03-6	40	Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Acute 1 (H400) M=1 Aquatic Chronic 1 (H410) M=1 EUH066
Permethrin (ISO)	258-067-9	52645-53-1	10	Acute tox. 4 (H302) Acute tox. 4 (H332) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) M = 10000
Hydrocarbons, C10-C12, isoalkanes, <2% aromatics	923-037-2	NA	38-43	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) EUH066
C11 alcohol, branched ethoxylated	-	127036-24-2	6-9	Acute Tox 4(H302) Acute Tox 4(H332) Eye dam 1 (H318)

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

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

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/attention.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

4.2. Most important symptoms and effects, both acute and delayed**4.3. Indication of any immediate medical attention and special treatment needed**

Note to physicians	Treat symptomatically.
---------------------------	------------------------

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
-------------------------------------	---

Small Fire	Dry chemical, CO ₂ , water spray or regular foam.
Large Fire	Water spray, fog or regular foam Dike fire-control water for later disposal Move containers from fire area if you can do it without risk

Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
---------------------------------------	---

5.2. Special hazards arising from the substance or mixture**5.3. Advice for firefighters**

Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
---	--

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions	Ensure adequate ventilation.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
----------------------------------	---

6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
------------------------------------	--

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling	Ensure adequate ventilation.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed in a dry and well-ventilated place.
---------------------------	---

7.3. Specific end use(s)

Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.
--------------------------------------	--

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
------------------------	---

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

8.2. Exposure controls**Personal protective equipment**

Eye/face protection	No special protective equipment required.
Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state Liquid
Color Clear yellow

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	4.0 - 7.0	
pH (as aqueous solution)		
Melting point / freezing point		
Boiling point / boiling range		
Flash point	No data available.	
Evaporation rate	No data available.	
Flammability (solid, gas)	No data available.	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available.	
Lower flammability or explosive limits	No data available.	
Vapor pressure	No data available.	
Vapor density	No data available.	
Relative density	0.9 - 1.0	
Water solubility	No data available.	
Solubility(ies)	No data available.	
Partition coefficient	No data available.	
Autoignition temperature	No data available.	
Decomposition temperature		
Kinematic viscosity	No data available.	
Dynamic viscosity	No data available.	

9.2. Other information**SECTION 10: Stability and reactivity****10.1. Reactivity****10.2. Chemical stability**

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Oral LD50	>2000 mg/kg. Based on available data, the classification criteria are not met.
Dermal LD50	> 2000 mg/kg. Based on available data, the classification criteria are not met.
Inhalation LC50	Not classified. Based on calculation method, the classification criteria are not met.
Skin corrosion/irritation	Non-irritating to the skin. Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Non-irritating to the eyes. Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	Not a skin sensitizer. Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Not classified. Based on calculation method classification criteria are not met.

Chemical name	European Union
Piperonyl butoxide	Not classified
Permethrin (ISO)	Not classified

Carcinogenicity Not classified. Based on calculation method classification criteria are not met.

Chemical name	European Union
Piperonyl butoxide	Not classified
Permethrin (ISO)	Not classified

Reproductive toxicity Not classified. Based on calculation method classification criteria are not met.

Chemical name	European Union
Piperonyl butoxide	Not classified
Permethrin (ISO)	Not classified

STOT - single exposure H335 - May cause respiratory irritation. Classification based on calculation method.

STOT - repeated exposure Not classified. Based on calculation method classification criteria are not met.

Aspiration hazard Not classified. Based on calculation method classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.
Classification based on calculation method.
Classification based on calculation method.
Toxic to honeybees.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Piperonyl butoxide	Acute toxicity: EC50 = 0.24 mg/l; Chronic toxicity: NOEC = NA	Acute toxicity: LC50 = 5.3 mg/l; Chronic toxicity: NOEC = NA	-	Acute toxicity: EC50 = 0.51 mg/l; Chronic toxicity: NOEC = 0.12 mg/l
Permethrin (ISO)	Acute toxicity: EC50 =	Acute toxicity: LC50	-	Acute toxicity: LC50 =

	0.0125 mg/l; Chronic toxicity: NOEC = 0.0009 mg/l	=0.0125 mg/l;Chronic toxicity: NOEC =0.000093 mg/l		0.00002 mg/l; Chronic toxicity: NOEC = 0.0029 mg/l
--	---	--	--	--

12.2. Persistence and degradability

Persistence and degradability Not be expected to persist in soil or water systems [Permethrin]. Not be expected to persist in soil [Piperonyl butoxide].

12.3. Bioaccumulative potential

Bioaccumulation Threshold for concern [Permethrin], [Piperonyl butoxide].

Bioconcentration factor (BCF) 300 L/Kg [Permethrin]; 260 L/Kg [Piperonyl butoxide]

Chemical name	Partition coefficient
Piperonyl butoxide	Log P = 4.75 (at pH7, 20 °C)
Permethrin (ISO)	Log P = 6.1 (at pH 7, 20 °C)

12.4. Mobility in soil

Mobility in soil Non-mobile in soil [Permethrin].

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The components in formulation do not meet the criteria for classification as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Piperonyl butoxide	The substance is not PBT / vPvB
Permethrin (ISO)	The substance is not PBT / vPvB

12.6. Other adverse effects

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances
Permethrin (ISO)	Group III Chemical	-

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IMDG

14.1 UN number 3082
 14.2 UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. [Permethrin], [Piperonyl butoxide]
 14.3 Transport hazard class(es) 9
 14.4 Packing group III
 14.5 Marine pollutant Yes
 Environmental hazards Yes
 14.6 Special precautions for user
 Special Provisions None
 14.7. Transport in bulk according to
 Annex II of MARPOL and the IBC
 Code

RID

14.1 UN number	3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [Permethrin], [Piperonyl butoxide]
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number	3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [Permethrin], [Piperonyl butoxide]
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None

IATA

14.1 UN number	3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [Permethrin], [Piperonyl butoxide]
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Chemical name	European Export/Import Restrictions per (EC) 689/2008 - Annex Number
Permethrin (ISO) - 52645-53-1	I.1

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AICS	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H226 - Flammable liquid and vapor
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects
EUH066 - Repeated exposure may cause skin dryness or cracking

Legend

SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure

H335 - Classification based on calculation method
H400 - Classification based on calculation method
H410 - Classification based on calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 04-Jun-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet