MATERIAL SAFETY DATA SHEET

March 2015 Rev. 04

1 Identification of the substance/preparation and of the company/undertaking/
1.1 – Product details

Trade name: PERME PLUS

Recording Office of Health: N. 19904

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

Concentrated water-based microemulsion insecticide for professional use with knockdown and residual action. For domestic and civil use.
Not applicable in other uses than the uses identified.

1.3 – Details of the supplier of the safety data sheet

Manufacturer/Supplier: ORMA srl - Via Saba, 4 - 10028 Trofarello TO
Tel. +39/011.64.99.064 Fax +39/011.68.04.102
Qualified technician on drafting the MSDS: aircontrol@ormatorino.it

1.4 – Emergency telephone number:

+39/011.6499064 (ORMA, office hours)
For urgent information, **call a Poison Centre** opened 24 hours a day (ex. Centro Antiveleni Ospedale Niguarda, Milano +39/02.66101029)

2 Hazards identification

Hazard labelling of the preparation according to the directives 67/548/EEC and 1999/45/EC and subsequent modifications and adjustments.

Xi, N; R 43, 50/53

Classification according the CLP Regulation N. 1272/2008 and subsequent modifications and adjustments.

Aerosol. Liq. 1, H222

Aquatic Chronic 1, H410

2.2 – Label elements

Hazard labelling of the preparation according to the directives 67/548/EEC and 1999/45/EC and subsequent modifications and adjustments.

Danger symbols:

Risk phrases:
R43 May cause sensitisation by skin contact.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety phrases:
2 Keep out of the reach of children
13 Keep away from food, drink and animal foodstuffs
20/21 When using do not eat, drink or smoke
24/25 Avoid contact with skin and eyes.
29/35 Do not empty into drains; dispose of this material and its container a safe way.
46 If swallowed, seek medical advice immediately and show this container or label
61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Hazard labelling of the preparation according to CLP Regulation N. 1272/2008 and subsequent modifications and adjustments

GHS07 **GHS09**

Hazard statements (H):

H317 May cause an allergic skin reaction
H410 Very toxic to aquatic life with long lasting effects

Precautionary statements (P):
P102 Keep out of reach of children.
P261 Avoid breathing vapours and spray.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment
P280 Wear protective gloves, protective clothing, eye protection, face protection.
P302+352: IF ON SKIN: Wash with plenty of water and soap.
P313 Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
P501 Dispose of contents/container in accordance with the regulations on hazardous waste.
2.3 – Other hazards

Not available information

3. Composition/information on ingredients

3.1 – Substances: Not pertinent information.

3.2 – Mixture: It contains

CHEMICAL NAME	CONC.	CLASSIFICATION 67/548/CEE	CLASSIFICATION 1272/2008 (CLP)
PERMETHRIN CAS 52645-53-1 EINECS 258-067-9 EU INDEX 613-058-00-2 Reg n° : non soggetto	15,2%	Xn, Xi, N; R20/22, R43, R50/53	Acute Tox. 4 H302 Acute Tox. 4 H332 Skin Sens. 1 H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
TETRAMETRHIN CAS 7696-12-0 EINECS 231-711-6 EU INDEX // Reg n° : 05-2116382403-48-0000	2,5 %	N; R50/53	Aquatic Acute 1 H400 Aquatic Chronic 1 H410
PIPERONYL BUTOXIDE CAS 51-03-6 EINECS 200-076-7 EU INDEX // Reg n° : //	5,2%	N; R50/53	Aquatic Acute 1 H400 Aquatic Chronic 1 H410
SOITEM ME 275/C CAS 577-11-7 EINECS 209-406-4 EU INDEX // N° REG. REACH: //	< 20%	Xi: R41	Eye Dam. 1 H318 Skin Irrit. 2 H315

T+ = Extremely Toxic (T+), T = Toxic (T), Xn = Harmful (Xn), C = Corrosive (C), Xi = Irritant (Xi), O = Oxidant (O), E = Explosive (E), F+ = Extremely Flammable (F+), F = Flammable (F), N = Environmentally hazardous (N).

The full text of Risk phrases (R) and Hazards (H) is specified in section 16.

Application of Note C, H, P, U (Enclosed 1 of the 67/548/EEC Directive and/or VI EC 1272/2008 Regulation). See section 16.

4 First-aid measures

4.1 – Description of first-aid measures

General information: if symptoms persist, seek medical care, giving the information contained in the label and in this sheet. In case of accident, the first-aid measure should be performed by trained personnel, in order to avoid the injured further complication or damages.

After eye contact: Rinse opened eye for at least 10 minutes plentifully under running water therefore protect dry eyes with sterile gauze or a clean handkerchief. SEEK MEDICAL ADVICE . Do not use eye drops or ointment of any kind before asking advice to an ophthalmologist .

After skin contact: Take off immediately all contaminated clothing, wash with plentiful running water all contaminated body areas which came in contact with the product.

After inhalation: remove the patient to fresh air; get medical advice if necessary.

After swallowing: get medical advice, showing the safety sheet. Do not induce vomiting to avoid the risk of aspiration into the respiratory tract.

4.2 – Main symptoms and effects, both acute and retarded

For symptoms and effects caused by the substances see section 11.

4.3 – Indications about the possible need to get medical advice and special treatments

Symptomatic treatment and control of vital functions.

5 Fire-fighting measures

5.1 – Extinguishing agents:

Suitable extinguishing agents: CO2, dry chemical extinguisher, sand.

Unsuitable extinguishing agents: Water with full jet. Water is not effective for fire-extinguishing, however it can be used to cool down containers exposed to flames, in order to prevent bursts and explosions.

5.2 – Special hazards arising from the substance or mixture

Particular fire dangers: In case of fire, toxic gas and irritating vapours emission. Overpressure may be created in the containers exposed to fire with possible danger of explosion.

5.3 – Advice for firefighters

Protective equipment: Wear suitable rebreather (especially in indoor locals) and complete protection outfit.

Special procedures: Contain the spread. Stay upwind. Avoid to breathe vapours. Cool down the containers

exposed to fire with nebulized water. Avoid extinguishing water to release to the environment.

6 Accidental release measures

6.1 –Personal precautions, protective equipment and emergency procedures

Use suitable personal protective equipment (see section 8). Ensure adequate ventilation.

6.2 Environmental precautions

Keep the product away from sewers, fluvial and marine water to avoid environmental pollution (in that case, inform respective authorities).

6.3 – Methods and material for containment and cleaning up

In case of spreading on the ground, stem with sand or soil and collect with absorbing material.

Dispose the collected material in disposal container (see Section 13).

6.4 – Reference to other sections

Further information regarding individual protection and disposal are reported in section 8 and 13.

7 Handling and storage

7.1 - Precautions for safe handling

Avoid eating, drinking and smoking. Use suitable protective clothes (see Section 8). Wash with water and soap after handling: ensure good ventilation of the workplace.

7.2 - Conditions for safe storage, including any incompatibilities

Store in the original tightly sealed receptacle, away from food and beverages and away from the reach of children and domestic animals. Possibly, store at a temperature between 5°C and30°C.

7.3 - Specific end use(s)

No further relevant information available.

8 Exposure controls/personal protection

8.1 – Control parameters

Pyrethrum (cleansed from sensitizing lactone): 1 mg/m³ (TLV-TWA). Ref. D. 81/2008, Enclosed XXXVIII

Pyrethrin: 5 mg/m3 (TLV-TWA). Ref. ACGIH (see section 16)

8.2 – Exposure controls

General protective measures:	Use the preparation according the indication contained in this safety sheet. Use individual protective devices recommended in this section.
Respiratory protection:	In not so ventilated environments, where high percentage of product could be present, protect adequately the respiratory tract (mask with suitable filter against gas and solvents).
Protection of hands:	Use impermeable and chemical substances resistant gloves (EN 374).
Eye protection:	Use safety glasses with side protection, in case of possible contact to eyes.
Body protection:	Use protective coats.

9 Physical and chemical properties

9.1 - Information on basic physical and chemical properties

Form:	liquid
Color:	pale yellow
Odor:	characteristic
pH	N.A. (not applicable)
Flash point	>100°C
Density	1,05 g/l

10 Stability and reactivity

10.1 – Reactivity

Not particular reactivity danger with other substances under normal operating conditions.

10.2 – Chemical Stability

Stable under normal operating and storage conditions.

10.3 – Possibility of hazardous reactions

No dangerous reactions known.

10.4 - Conditions to avoid

Avoid overheating, electrostatic charge, electrostatic charges and any lighting source.

10.5 - Incompatible materials

No further relevant information available.

10.6 – Hazardous decomposition products

The thermal decomposition causes the formation of hazardous compounds.

11 Toxical information

11.1 – Information on toxicological effects

Mechanism of action of a.s.	The permethrin and tetramethrin (pyrethroids) act on the central and peripheral nervous system at the level of neuronal membranes causing a closure of sodium channels.
Inhalation	For prolonged exposure, respiratory irritation and headaches, nausea, drowsiness and dizziness
Ingestion	May cause irritation of the mucous membrane of digestive apparatus, hypersalivation, nausea, vomiting, diarrhea,abdominal pain, depression of the central nervous system, muscle spasms, convulsions, shortness of breath; ingestion of the liquid may ingestion of the liquid may cause formation of droplets which by going into the lungs can cause chemical pneumonitis .
Skin contact	For frequent and prolonged contact, irritation and dermatitis persistent, cracking and dryness of the skin
Eye contact	Redness and irritation of the conjunctiva
Toxycological data	Active ingredients: Permethrin: Acute LD50 rat 4570 mg / kg (oral); LD50 rat> 2000 mg / kg (dermal toxicity); LC50 rat (4h, inhalation) 0.45 mg / l. Isobutyl alcohol: LD50 (Oral): 2460 mg / kg Rat; LC50 (Inhalation): 19.2 mg/l/4h Rat LD50 (Dermal): 2460 mg / kg Rabbit. Tetramethrin: LD50 (oral):> 2000 mg / kg rat; LD50 (Dermal):> 2000 mg / kg rat; LC50 (Inhalation):> 5.63 mg / kg rat (4 hours). Piperonyl butoxide: LD50 (Oral): 6150 mg / kg rat; LD50 (Dermal):> 7950 mg / kg rat.

12 Ecological information

The mixture is very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.1 – Toxicity

Active ingredients: Permethrin: fish LC50 2.5 mg / l (96h); EC50 Daphnia magna> 0.0006 mg / l (48h). Tetramethrin: LC50 Fish 0.0033 mg / l (96h); Daphnia magna EC50 0.47 mg / l (48h). Piperonyl butoxide (synergist): Fish LC50 5.37 mg / l (96h);Daphnia magna EC50> 0.51 mg / l (48h).

12.2 - Persistence and degradability

No further information available.

12.3 – Bioaccumulative potential
No further information available.

12.4 – Mobility in soil
No further information available.

12.5 – Results of PBT and vPvB assessment
No further information available.

12.6 – Other adverse effects
No further information available.

13 Disposal consideration

13.1 – Waste treatment methods

General recommendation: Recover if possible. Operate according to local and national dispositions in force. Containers, even if completely emptied, must not be released to the environment. If they contain residues, they must be classified, stored and sent to an appropriate waste management plant. For a non-professional use the completely empty container can be disposed with household garbage, according to the local dispositions for waste separation.

Classification: The classification of waste is an obligation of the producer. Possible EWC codes: 07 04 13 (solid wastes containing dangerous substances) 16 03 05 (waste containing dangerous substances).

14 Transport information

ADR/RID (street) 	Class 9, UN No. 3082, Packing Group III hazardous material to the environment, liquid. N.O.S. (Permethrin, Piperonyl butoxide)
IMDG (maritime) 	Class 9, UN No. 3082, Packing Group III hazardous material to the environment, liquid. N.O.S. (Permethrin, Piperonyl butoxide) The mixture is classified as a marine pollutant.
ICAO/IATA (air) 	Class 9, UN No. 3082, Packing Group III hazardous material to the environment, liquid. N.O.S. (Permethrin, Piperonyl butoxide)

15 Regulatory information

Standards and legislation on health, safety and environment specific for the substance or mixture
Seveso category: 9 i)
Restrictions relating to the product or contained substances pursuant to Annex XVII to Regulation (EC) 1907/2006
Product: Step 3
Substances in Candidate List (Art. 59 REACH)
None
Substances subject to authorization (Annex XIV REACH)
none
Healthcare controls
Chemical safety assessment
Has not been processed a chemical safety assessment for the mixture and the substances it contains

16 Other information

Revision Number: 4.0

Compilation date: March 2015. This safety data sheet cancels and replaces the previous version 3 dated March 2014. All the sheet sections has been subjected to modifications.

General information: The information provided on this Safety Data Sheet corresponds to the present state of our knowledge and our experience of the product and is not exhaustive. Save indications to the contrary applies to the product as such and complies with the specifications. In case of combinations or mixtures, make sure that no new dangers can arise.It is user's responsibility to ensure the suitability and completeness of the information in relation to the particular use to which it is needed . For more information about the mixture see the label affixed to the package.

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

Acute Tox.4	Acute Toxicity, Cat 4
Acquatic Chronic 1	Hazardous for the aquatic enviroment, Chronic toxicity cat 1
Acquatic Chronic 3	Hazardous for the aquatic enviroment, Chronic toxicity cat 3
Acquatic Acute 1	Hazardous for the aquatic enviroment, Acute toxicity cat 1
Skin Irrit 2	Dermal irritation
Skin sens 1	Dermal sensitization
H302	Harmful if swallowed
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
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.
R20/22	Harmful by inhalation and if swallowed.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.

R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Regulation

Are complied with the directions given by the following European regulations:
- Directive 99/45/EC (classification and labeling of dangerous preparations) transposed by Legislative Decree

No. 65/2003;

- Directive 67/548/EEC (classification and labeling of dangerous substances);
- Regulation (EC) No 1272/2008 of the European Parliament (CLP);
- Directive 98/24/EC (Protection of the health and safety of workers from the risks from chemicals) transposed

Notes

TLV-TWA (Threshold Limit Value-Time Weighted Average): the limit values in the weighted 8 hours.
TLVSTEL
(Threshold Limit Value - Short Time Exposure Limit), the maximum value allowed for short exposures.
Section 8 is quoted ACGIH (American Conference of Governmental Industries
Hygienists). The data relating to threshold limit values (TLV-TWA) are taken from the supplement to Vol 3, No.
1 issue of the Journal of Industrial Hygienists (AIDII) published in 2012 and refer to the ACGIH values of 2012.