



**AIR
CONTROL**

MASTERCID MICRO

Revision 1.0 of September, 22 2015

MATERIAL SAFETY DATA SHEET *according to the regulation 453/2010 Annex II*

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 - Product details

Trade name: MASTERCID MICRO

Recording Office of Health: N. 20154

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

Insecticide - acaricide, concentrated microencapsulated

1.3 - Details of the supplier of the safety data sheet

Manufacturer/Supplier: ORMA S.r.l. - 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)

SECTION 2: HAZARDS IDENTIFICATION

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

Aquatic Acute 1 H400

Aquatic Chronic 2 H411

2.2 - Label elements

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

GHS09



WARNING

Hazard statements (H):

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements (P):

P102: Keep out of reach of children.

P270: Do not eat, drink or smoke when using this product.

P273: Avoid release to the environment.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.



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P308+P313: IF exposed or concerned: Get medical advice/attention.

P391: Collect spillage.

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

2.3 – Other hazards

n.a.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 – Substances: Not pertinent information.

3.2 – Mixture: It contains

Name	Conc.	Classification 1272/2008 (CLP)
CYPERMETHRIN (CIS/TRANS 40/60) CAS 52315-07-8 EINECS 257-842-9 EU INDEX 607-421-00-4	8,00%	ACUTE TOX. 4 H302 ACUTE TOX. 4 H332 STOT SE 3 H335 AQUATIC ACUTE 1 H400 AQUATIC CHRONIC 1 H410
PBO EINECS 200-076-7 CAS 51-03-6	6,0%	Aquatic Acute 1 H400 Aquatic Chronic 1 H410
TETRAMETHRIN CAS: 7696-12-0 CE: 231-711-6 N. REG. 05-2116382403-48-XXXX	2,0%	Aquatic Acute 1 H400 Aquatic Chronic 1 H410
ACETOPHENONE CAS 98-86-2 CE 202-708-7 INDEX 606-042-00-1	< 5,0%	ACUTE TOX. 4 H302 Eya dam./irrit. 2A H319
CITRIC ACID CAS 5949-29-1 CE 201-069-1	< 1,0%	EYA DAM./IRRIT. 2A H319
1,2-BENZOISOTIAZOLIN-3-ONE CAS 2634-33-5 CE 220-120-9 INDEX 613-088-00-6	< 1,0%	ACUTE TOX. 4 H302 SKIN CORR./IRRIT. 2 H315 Sens. Skin 1 H317 Eye dam./irrit. 1 H318 Aquatic Acute 1 H400

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

SECTION 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 with water for several minutes and get medical advice. Do not use eye drops and ointments before medical advice.

After skin contact: Immediately wash with plentiful running water.

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

After swallowing: get medical advice, showing the safety sheet. Do not induce vomiting.



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4.2 - Main symptoms and effects, both acute and retarded

See section 11.

SECTION 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.

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.

SECTION 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.

SECTION 7: HANDLING AND STORAGE

7.1 - Precautions for safe handling

Ensure good ventilation. 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. Do not smoke and do not use on naked flame.

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. Store in a cool location. Protect from direct sunlight. Where applicable, observe official regulations on storing packaging with pressurized containers.

7.3 - Specific end use(s)

No further relevant information available.



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 - Control parameters

For further explanation, see section 16 (notes). In case of occupational exposure to the mixture wear personal protective equipment specified below.

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: If need use protective coats.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 - Information on basic physical and chemical properties

Form:	dense liquid
Color:	clear
Odor:	characteristic
pH :	5.0
flash point:	> 100°C
Boiling point	> 100°C
Density:	1.0-1.1 mg/ml

SECTION 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, direct exposition to sun 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.

SECTION 11: TOXICAL INFORMATION

11.1 – Information on toxicological effects

Mechanism of action: The cypermethrin and tetramethrin (pyrethroid) act on the central and peripheral nervous system at the level of neuronal membranes resulting in a closure of sodium channels.

Inhalation	For prolonged exposure, respiratory irritation and headaches, nausea, drowsiness and dizziness.
Swallowing	May cause irritation of the digestive mucosa, salivation, nausea, vomiting, diarrhea, abdominal pain, depression of the central nervous system, muscle spasms, convulsions, dyspnea; swallowing the liquid may cause the formation of droplets, entering into the lungs, may cause chemical pneumonitis.
Skin contact	For frequent and prolonged contact, persistent irritation and dermatitis, chapping and dryness of the skin.
Eyes contact	Conjunctival redness and irritation, corneal damage

Toxicological data :

Cypermethrin: LD₅₀ acute rat 250-4123 mg/kg (oral); LD₅₀ >1600 rat; 2460 rabbit mg/kg (dermale acuta). It can be irritant for eyes and skin.

Tetramethrin : LD₅₀ (oral) : > 5000 mg / kg rat ; LD₅₀ (Dermal) : > 2000 mg / kg rat ; LC₅₀ (Inhalation) : > 5.63 mg / kg rat (4 hours) . Acute dermal irritation rabbit : non-irritant ; Acute ocular irritation rabbit : non-irritant ; skin sensitization : not sensitizing .

Piperonyl butoxide : LD₅₀ Rat : 4570 mg / kg (oral) ; LD₅₀ rabbit > 2000 mg / kg (dermal) ; Rat LC₅₀ (4h)

5.9 mg / l inhalation. Not irritating to skin and eyes . Not sensitizing to skin.

Acetophenone : LD₅₀ oral rat : 815 mg / kg ; Dermal LD₅₀ rabbit : 16,329 mg / kg . Slight irritation skin. Severe eye irritation .

Citric acid monohydrate: LD₅₀ oral rat: 375 mg/kg. Irritating to eyes and skin .

1,2- Benzoisotiazolin - 3-one : LD₅₀ oral rat : 1020 mg / kg . May cause allergic skin reaction .

SECTION 12: ECOLOGICAL INFORMATION

The mixture is very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Set out below the toxicological information relating to the main substances in the preparation (section 3):

12.1 – Toxicity

Cypermethrin:

EC₅₀ 0.00027 mg/l daphnia magna (48h);

LC₅₀ 0.00317 mg/l fish (96h);

LC₅₀ 1.2-12 ug/l salmo salar (96h).

Tetramethrin :

fish LC₅₀ 0.004 mg / l (96h) ;

EC₅₀ Daphnia magna 0,11mg / l (48h) .



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Piperonyl butoxide :

fish LC50 3.94 mg / l (96h) ;

EC50 Daphnia magna : 0.51 mg / l (48h) ;

Crustaceans EC50 : 3.89 mg / l (72h) .

Acetophenone :

LC50 Fish : 162 mg / l (96h)

1,2- Benzoisotiazolin - 3-one :

fish LC50 : 0.8 mg / l (96h) ;

EC50 Daphnia magna : 4.4 mg / l (48h) LC50 > 100 mg/l fish

12.2 - Persistence and degradability

Piperonyl butoxide: not readily biodegradable.

12.3 - Bioaccumulative potential

Piperonyl butoxide: BCF 91-260-380

12.4 - Mobility in soil

N.A.

12.5 - Results of PBT and vPvB assessment

No data available

12.6 - Other adverse effects

No further information available.

SECTION 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 waste classification is an obligation of the manufacturer of the same. Waste codes number recommended: EWC 07 04 13 (solid waste containing dangerous substances), 16 03 05 (organic waste containing dangerous substances).

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

3082

14.2. UN proper shipping name

MATERIAL ENVIRONMENTALLY HAZARDOUS SUBSTANCE, liquid, (Cypermethrin and Tetramethrin)

14.3. Transport hazard class(es)

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14.4. Packing group

III

14.5. Environmental hazards

Marine pollutant

14.6. Special precautions for user

N.A.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

N.A.

SECTION 15: REGULATORY INFORMATION

15.1 – Specific standards and legislation on health, safety and environment for the preparation/substance

Substances in Candidate List (Art. 59 REACH): None

Restrictions on the product or the substances contained according to EC-Regulation 1907/2006 Enclose XVII: section 3. Substances subject to authorization (REACH Enclose XIV): None. Seveso: 9 i)

Standard references: the instructions given by the following European legislation are respect:

- Directive 99/45/CE D.Lgs n° 65/2003;
- Directive 67/548/CE
- Regulation (CE) 1272/2008 (CLP);
- Directive 98/24/CE D.Lgs 81/2008;
- Regulation (CE) 1907/2006 (REACH);
- Regulation (CE) 790/2009 (I Atp. CLP);
- Regulation (CE) 453/2010;
- GESTIS – IFA (Institute für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung).

15.2 – Chemical safety assessment

A chemical safety assessment for the product has been not elaborated.

SECTION 16: OTHER INFORMATION

This information is based on our present knowledge and experience and it is not exhaustive. Unless contrary indications this information should be applied to the product as conform to its specifications. In case of mixing or combinations, assure, that a new danger could not appear. However the user have the responsibility for assuring the suitability and the completeness of the information, in particular referring to its proper use. It does not except in any case the user from observing all the laws and the regulations relating to the product, hygiene, workers safety and environmental protection. For further information regarding the preparation, consult the label on the packaging.

Hazard indication text (H) mentioned on sheet section 2-3

Aquatic Acute 1:	Hazardous to the aquatic environment, acute toxicity Category 1
Aquatic Chronic 1:	Hazardous to the aquatic environment, chronic toxicity Category 1
Eye Damage 1:	eye irritant; Category 1



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STOT SE 3:	organ toxicity, Category 3
Asp. Toxicity 1:	Asp hazard, Category 1.
Eye damage 2A:	Eyes irritant,, Category 2A.
Sens. Skin 1:	Skin irritant, Category 1.
Skin corr./irrit 2:	Skin irritant,, Category 2.

H302: Harmful if swallowed.
H315: Causes skin irritation.
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.

Notes (paragraph 8):

TLV-TWA (Threshold Limit Value -Time Weighted Average): limit values weighted in 8 hours. TLV-STEL (Threshold Limit Value - Short Time Exposure Limit), the maximum value allowed for brief exposure.

Section 8 is mentioned the ACGIH (American Conference of Governmental Hygienists Industries). Data for the threshold limit values (TLV-TWA) are taken from the supplement to Vol. 3, No. 1 of the Journal of Industrial Hygienists (AIDII) published in 2012 and refer to the values ACGIH 2012.