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# COOPERS ENVIRONMENTAL SCIENCE (PTY) LTD.



## Material Safety Data Sheet

Revised on: 1 June 2014

Revision number 2

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### 1. Substance/preparation and company identification

#### MOSFOG

Use: Public Health, Insecticide

Company:

Coopers Environmental Science (Pty) Ltd.

Reg. No. 2000/023667/07

P.O. Box 14374

BREDELL 1623

SOUTH AFRICA

TEL: (011) 979-4246/7

Emergency contact numbers

Tygerberg Poison Center: +2721 931 6129

Griffon Poison Information Centre - 082 446 8946

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### 2. Composition/information on ingredients

Chemical nature

Hazardous ingredients

Pyrethrin (pyrethroid)	5 g/l
CAS Number: [8003-34-7]	
Piperonyl butoxide	40g/l
CAS Number: [51-03-6]	

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### 3. Hazard identification

Chemical nature: Oil solution (FN/KN)

Pyrethrins 5 g/l

Piperonyl butoxide 40 g/l

Hazardous components:

Chemical Name CAS-No. / EINECS-No. Symbol(s) R-phrase(s) Concentration [%]

Pyrethrins 8003-34-7

232-319-8

Xn, N R20/21/22,

R50/53

0,5

Piperonyl butoxide

51-03-6

200-076-7

N R50/53 4,0

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For the full text of the R-phrases mentioned in this Section, see Section 16.

#### 4. First-aid measures

Skin contact:	Remove contaminated clothing, rinse the affected skin area with plenty of soap and cool water or shower. DO NOT rub skin hard.
Eye contact:	Immediately wash eyes with copious amounts of clean water for at least 15 minutes, cover with a sterile pad, contact a doctor.
Ingestion:	Keep patient calm and reassured, rinse mouth with clean water. Never give anything by mouth to an unconscious person. DO NOT apply direct mouth to mouth respiration, use a disposable protective mouthpiece.
Inhalation:	Remove patient from source of poisoning to well-ventilated area and keep him quiet and reassured. If necessary, administer artificial respiration and oxygen or closed chest cardiac massage.
Note to physician:	Treat symptomatically. No specific antidote known. The product contains a synergist which may make a person temporarily vulnerable to a variety of toxic insults which would normally be tolerated with ease.

SEEK MEDICAL ADVICE PROMPTLY AND SHOW THIS MSDS TO A MEDICAL PRACTITIONER

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#### 5. Fire-fighting measures

Personnel involved in a fire situation with this material should wear self-contained breathing apparatus as acrid smoke and irritating fumes may be given off.  
No unprotected person should be allowed in the vicinity.  
Decomposes in a fire to emit acrid smoke and irritating fumes.  
Fire extinguishing agents to be used: Foam.  
Contain run-off with temporary earth barriers.

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#### 6. Accidental release measures

Soak up spillage with sand, sweep up and dispose of as for toxic waste in accordance with local/national regulations.  
Protective clothing to be worn when clearing spillage.

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#### 7. Handling and storage

Storage:	Store away from children and pets. Store in a cool, dry place away from sources of heat. Store away from farm feeds, foodstuffs and eating utensils. Store away from alkaline materials.
Cleaning of equipment after use:	Clean protective clothing, used protective clothing and the workers' personal clothing shall be kept apart. At the end of each day, all protective clothing and respirators shall be decontaminated, washed, rinsed and dried. Extra care must be taken when cleaning equipment after use.

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Handling precautions:

Do not apply directly onto food or tobacco. Wash with soap and water after use. Avoid excessive wetting of plastic, rubber or asphalt surfaces. During application and when cleaning equipment contamination of all sources of drinking water, rivers, dams, crops or grazing shall be prevented. The material is toxic to fish and bees.

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## 8. Exposure controls and personal protection

Chemical resistant gloves, safety goggles or face shield, adequate ventilation or effective respiratory protection, full length protective clothing and boots should be worn when handling this material in an emergency.

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## 9. Physical and chemical properties

Description: A clear, honey-coloured, liquid  
Solubility: Not soluble in water  
Flash point: About 142 °C  
Degradation: In the environment, degradation promoted by sunlight and UV light.  
In mammals, rapidly degraded in the stomach by hydrolysis of the ester bond to harmless metabolites.

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## 10. Stability and reactivity

Conditions to avoid: Extremes of temperature and direct sunlight.

Non-hazardous reactions when stored and handled according to prescribed instructions.

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## 11. Toxicological information (active ingredient)

The product is moderately hazardous if inhaled, swallowed and on skin contact.  
(pyrethrins)

LD<sub>50</sub> acute oral, rats: 710 to 1 400 mg/kg

LD<sub>50</sub> acute dermal, rats: > 1 500 mg/kg

(piperonyl butoxide)

LD<sub>50</sub> acute oral, rats: 7 960 mg/kg

LD<sub>50</sub> acute dermal, rats: > 8 000 mg/kg

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## 12. Ecological information

### Ecotoxicity

Toxicity to fish:

Rainbow trout/LC<sub>50</sub> (96 h): 0.009 mg/l

Bluegill LC<sub>50</sub> (96 h): 10 µg/l

Aquatic invertebrates:

Daphnia magna/LC<sub>50</sub> (48 h): 12 µg/l

Toxicity to birds:

Mallard duck LD<sub>50</sub> : >10000 mg/kg

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**Persistence and degradability**

Rapidly oxidizes in presence of sunlight DT<sub>50</sub> 10-12 days

**Additional information**

Other ecotoxicological advice:  
Do not discharge product into the environment.

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**13. Disposal considerations**

Disposal of residue:	Residue may be disposed of as for toxic waste in accordance with local/national regulations.
Disposal of used packaging material:	Empty containers to be disposed of as toxic waste in accordance with local/national regulations.
DO NOT re-use for any other purpose.	

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**14. Transport information**

UN No:	3082
Class:	9
IMDG:	-
Ems:	-
MFAG:	-
Subsidiary risk:	•
Packing group:	III

Declaration for land shipment: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(pyrethrin solution)

Declaration for sea shipment: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(pyrethrin solution)

Declaration for shipment by air: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(pyrethrin solution)

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**15. Regulatory information****Regulations of the European union (Labelling) / National legislation/Regulations**

WHO classification III

R-phrase(s)

R 20, 21, 22, 50, 51

S-phrase(s)

S 2, 23, 24

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**16. Other information**

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of

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the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

