

MATERIAL SAFETY DATA SHEET

* Occupational Health and Safety Act and Regulations (85/1993)

* General Administrative Regulations

COMPANY DETAILS: : OCT 2010

NAME

ADDRESS

TEL:

FAX

1 PRODUCT AND COMPANY IDENTIFICATION

TRADE/COMMERCIAL NAME : MIL-FOG
CHEMICAL NAME : Pyrethrins 92.5% w/w
Minimum.
Hazard Symbols: Xn,
N R-phrases
22-36/38-50
CHEMICAL FAMILY : Pyrethrins Insecticides
SYNONYMS : N/A
CHEMICAL ABSTRACT NO : 68359-37-5
UN No : 2902
NIOSH NO : N/A

2 COMPOSITION

Hazardous components :Piperonyl Butoxide
20 g/l
EEC CLASSIFICATION : Xn, N
R PHRASES : R22-36/38-50

3 HAZARDS IDENTIFICATION

MAIN HAZARD : Low hazard. Material can
form flammable mixtures or
can burn only upon heating
to temperatures at or above
flash point.
Static discharge, product can

accumulate static charges
which can cause an incendiary
electrical discharge.

FLAMMABILITY : Material can form flammable

mixtures or can burn only upon heating to temperatures at or above flash point.

BIOLOGICAL HAZARD	: No data available.
REPRODUCTION HAZARD	: No data available.
EYE EFFECTS	: Slightly irritant.
HEALTH EFFECTS - SKIN	: Slightly irritant.
HEALTH EFFECTS - INGESTION	: Slightly irritant when ingested.
HEALTH EFFECTS - INHALATION	: Irritant to the mucous membranes.
CARCINOGENICITY	: No data available.
MUTAGENECITY	: No data available.
NEUROTOXITY	: No data available.
CHEMICAL HAZARD	: No data available.

4 **FIRST AID MEASURES**

PRODUCT IN THE EYES	: Rinse eyes thoroughly with water then consult an eye specialist.
PRODUCT ON THE SKIN	: Remove soiled or soaked clothing immediately. Wash skin immediately with large amounts of water and soap.
PRODUCT INGESTED	: Call emergency doctor immediately!
PRODUCT INHALED	: Remove victim from the danger zone. If there is a risk of unconsciousness, position and transport in stable lateral position.
NOTE TO PHYSICIAN	: The active ingredient belongs to the following chemical group - Pyrethroid. Therapeutic measures: Basic aid, decontamination, symptomatic treatment.

5 **FIRE FIGHTING MEASURES**

EXTINGUISHING MEDIA	: Sprayed water jet, foam, extinguishing power. CO ² , and sand. Fight fire in early stages if it is safe to do so. Contain firefighting water.
SPECIAL HAZARDS	: In the event of fire, the formation of hydrogen chloride, hydrogen

cyanide, hydrogen fluoride, carbon monoxide and nitrogen oxides must be anticipated.

PROTECTIVE CLOTHING

: Wear respiratory protection.
Well ventilated areas, full face masks with combination filter e.g.ABEK-P2 (offers no protection monoxide!)
Enclose premises.
Respirator with independent air supply.

6 ACCIDENTAL RELEASE MEASURE

PERSONAL PRECAUTION : Use protective clothing.

ENVIRONMENTAL PRECAUTION : Prevent entry into drains, water and soil.

SMALL SPILLS & LARGE SPILLS : Take up spilled product with absorbent materials (e.g. sawdust, peat, chemical binder)
These materials must be taken up into closable containers.

To clean the floor and all the objects contaminated by this material, use damp cloth. Also place used cleaning materials into closable receptacles.

To clean the floor and all the objects contaminated by this material, use damp cloth. Also place used cleaning

7 HANDLING AND STORAGE

SUITABLE MATERIAL : N/A

HANDLING/STORAGE

PRECAUTIONS : Observe the rules contained in the VIC concept for separate/common storage. To maintain quality, store in a dry place and protected from temperatures below and above 50°C. Keep away from food, drink and animal feeding stuff.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS: TWA CEL-RL

<u>Short term</u>	<u>CEL-RL</u>
<u>PPMa MG/M30</u>	<u>PPMaMG/M30</u>
- 5	- 10

ENGINEERING CONTROL MEASURES : No data available

PERSONAL PROTECTION

RESPIRATORY : Wear respiratory protection.
Well ventilated areas - full face mask with a combination filter e.g. ABEK-P2 (offers no protection from carbon monoxide!)
Enclosed premises - respirator with independent air supply.

HANDS : Protective gloves for chemicals

EYES : Goggles

SKIN : No data available

OTHER PROTECTION : Avoid contact with product.

change badly soiled or soaked clothing. Wash hands before breaks and at end of work.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Clear liquid

ODOUR : N/A

pH : N/A

BOILING POINT : N/A

MELTING POINT : N/A

FLASH POINT : 101°C

EXPLOSIVE PROPERTIES : None

OXIDIZING PROPERTIES : None

VAPOUR PRESSURE : 0.002kPa at 20°C
0.008kPa at 38°C
0.028kPa at 55°C

DENSITY : Approx. 0.815 g/cm³ at 15°C

SOLUBILITY - WATER : <0.10 Wt% at 20°C

SOLUBILITY - SOLVENT : N/A

FLAMMABILITY : N/A

AUTOFLAMMABILITY : N/A

10 STABILITY AND REACTIVITY

CONDITIONS TO AVOID : None

INCOMPATIBLE MATERIALS : None

HAZARDOUS DECOMPOSITION PRODUCTS : None

11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY : LD50 oral-rat: approx 2100mg/kg
LD50 dermal, rat: >5000mg/kg
Irritation of the skin/rabbit: slight irritation.
Irritant to the mucous membranes/rabbit: slight irritation.

CHRONIC TOXICITY : No data available

CARCINOGENICITY : No data available

MUTAGENICITY : No data available

REPRODUCTIVE HAZARD : No data available

12 ECOLOGICAL INFORMATION

AQUATIC TOXICITY - FISH : Active ingredient LC50:3,2 ug/l (96h) Golden Orfe (*Leuciscus idus*)
LC50:0,68 ug/l (96h) Rainbow Trout (*Onchorhynchus mykiss*)
LC50:1,5ug/l (96h) (*Lepomis macrochirus*)

AQUATIC TOXICITY - DAPHNIA : Active ingredient EC50:0,16 ug/l (48h) Water Flea (*Daphnia magna*)

AQUATIC TOXICITY - ALGAE : Active ingredient
Growth rate IC50:>10mg/l
Green algae (*Scenedesmus subspicatus*)

BIODEGRADABILITY : No data available

BIO ACCUMULATION : No data available

MOBILITY : No data available

GERMAN wgk : N/A

13 DISPOSAL CONSIDERATION

DISPOSAL METHODS : Disposal considerations in cases where larger amount of the product have become unusable, it should be established whether material utilization is possible (if necessary, consult the manufactures/suppliers). Small amount of the product and un-cleaned empty packaging should be packaged and sealed, labeled and transferred to a suitable in-

DISPOSAL PACKAGING : Disposal in accordance with
cinerator in accordance with the
local regulations.
local legal provisions.

14 TRANSPORT INFORMATION

UN NO : 2902
ADR/RID SUBSTANCE IDENTITY I: N/A
ADR/RID CLASS : 6.1
ADR/RID ITEM NO : N/A
ADR/RID HAZARD IDENTITY NO : N/A
IMDG SHIPPING NAME : N/A
IMDG CLASS : 6.1
IMDG PACKAGING GROUP : N/A
IMDG MARINE POLLUTANT : Yes
IMDG - EMS NO : N/A
IMDG - MFAG TABLE ON : N/A
IATA - CLASS : 6.1
IATA - SUSIDIARY RISK(S) : N/A
UK - DESCRIPTION : No data available
UK EMERGENCY ACTION CLASS : No data available
UK CLASSIFICATION : No data available
TREM CARD NO : N/A

15 REGULATORY INFORMATION

EEC HAZARD CLASSIFICATION : 6.1
RISK PHRASES : Harmful by inhalation, in contact
with skin and if swallowed.
SAFETY PHRASES : Keep out of reach of children.
Keep away for food, drink and
animal feeding stuffs.
NATIONAL LEGISLATION : OSN Act, National Road Traffic
Act (when promulgated)

16 OTHER INFORMATION

SELECTED BIBLIOGRAPHY

1. Data sheets as supplied by various Suppliers and Manufacturers.
2. Emergency Response Handbook - Annex A of SABS 0232-3
3. Handling Chemicals Safety 2nd Ed. Dutch Association of Safety

- experts, Dutch Chemical Industry Association, Dutch Safety Institute, 1980.
4. NIOSH Pocket Guide to Chemical Hazards, NIOSH, June 1990
 5. Micromedex, Inc. TOMES CPStm System Vol.39.
 6. Patty's Industrial Hygiene Toxicology, 4th edition, Vol. 11, Part A, George D Clayton, Florence E. Clayton.
 7. Supplement to NIOSH Manual of Analytic Methods, 3rd Edition, NIOSH Publication , No 84-100, 1985.
 8. Toxic & Hazardous Industrial Safety Manual - Industrial Chemicals Safety Manual for Handling and disposal with toxicity and hazard data.
 9. Winspirs 2.1 as supplied by the Canadian Centre of Occupational Health and Safety.

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