



MAKHTESHIM
CHEMICAL WORKS LTD.

MATERIAL SAFETY DATA SHEET

Page : 1 of 4

Revised edition no : 2

Date : 29/5/2005

Supersedes : 13/12/2004

FOLPAN 80 WDG

R-6811.DPD

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Trade name : FOLPAN 80 WDG
Chemical formula : Folpet : C₉H₄Cl₃NO₂S
Use : Fungicide
Company identification : Makhteshim Chemical Works Ltd.
PO Box 60
Beer Sheva 84100 Israel.
Fax : +972-8-6296848
Emergency phone nr : +972-3-6106666 Subscription no. 36789 (Makhteshim)

2. COMPOSITION / INFORMATION ON INGREDIENTS

This product is considered to be hazardous and contains hazardous components.

Substance name	Value(s)	CAS No	EC No	Index No	Classification
Folpet	80 %	133-07-3	205-088-6	613-045-00-1	Carc. Cat. 3; R40 Xn; R20 Xi; R36 R43 N; R50
Condensed naphthalene sulfonate	> 1	----	----	----	Xi; R36/38
Dialkyl naphthalene sulphonate	> 1	1322-93-6	215-343-3	----	Xn; R20/22 Xi; R36/37

3. HAZARDS IDENTIFICATION

Human Health Hazards : Irritating to eyes.
Limited evidence of a carcinogenic effect.
May cause sensitization by skin contact.
Environmental hazard : Very toxic to aquatic organisms.

4. FIRST AID MEASURES

Undesirable human health effects

Skin contact : Repeated exposure may cause contact dermatitis.
Eye contact : Redness , tears .
First aid
Inhalation : Keep victim warm and at rest. Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.
Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with plenty of water. Consult a doctor.
Skin contact : Remove affected clothing and wash all exposed skin area with soap and water, followed by warm water rinse. Consult a doctor in the event of any complaints.
Eye contact : Wash off with plenty of water. If pain persists, consult an eye specialist.
Note to physician : No specific antidote known. Treat symptomatically and give supportive therapy. If ingested perform gastric lavage and administer activated charcoal.

5. FIRE-FIGHTING MEASURES

Extinguishing media : For small fire : foam , dry chemical , carbon dioxide .
For large fire: foam , water fog , water spray .
Special procedures : Fight fires from a protected location . Dike fire control water for later disposal.
Special exposure hazards : When heated to decomposition, emits toxic fumes : carbon dioxide , carbon monoxide , nitrogen oxides , sulfur oxide , hydrogen chloride , CSCl₂ .
Protection against fire : Wear suitable protective clothing . Use self-contained breathing apparatus when in

Makhteshim Chemical Works Ltd.

PO Box 60 Beer Sheva 84100 Israel.

Fax : +972-8-6296848

FOLPAN 80 WDG

R-6811.DPD

5. FIRE-FIGHTING MEASURES (continued)

close proximity to fire.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Use appropriate protection (see section 8).
- Environmental precautions** : Dispose of this material and its container at hazardous or special waste collection point. If the product has contaminated surface water, inform the appropriate authorities.
- After spillage and/or leakage** : Collect spilled material with shovel, place into a clean container and cover container loosely .

7. HANDLING AND STORAGE

- Handling** : Avoid dust production. Do not breathe dust. Avoid contact with skin and eyes. .
- Storage** : Keep locked up. Keep container tightly closed. Keep only in the original container in a cool, well ventilated place. Keep container dry .
- Packing** : Low density polyethylene open mouth bags .
Woven polypropylene big bags .

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Industrial hygiene** : Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower . Wash clothing before re-using. Wash hands thoroughly after handling.
- Occupational Exposure Limits** : Folpet : Not established
- **Respiratory protection** : During spraying wear suitable respiratory equipment.
- **Skin protection** : Wear protective clothing and chemical resistant boots .
- **Hand protection** : Wear suitable gloves.
- **Eye protection** : Chemical goggles or safety glasses.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state** : Granules
- Colour** : Off-white
- Odour** : Faint odour (characteristic)
- Molecular weight** : Folpet : 296.56
- Melting point [°C]** : Folpet : 177 (Pure)
- Bulk density** : 650 - 750 g/l
- Vapour pressure** : Folpet : $11.6 \times (10)^{-5}$ Pa (40°C - Pure)
- Solubility in water** : Insoluble
- Flammability** : Not flammable
- Explosion limits** : Not explosive
- Log P octanol** : Folpet : KOW = 1279

10. STABILITY AND REACTIVITY

- Physico-chemical stability** : Stable under normal dry conditions.
- Hazardous decomposition products** : Thermal decomposition generates : carbon dioxide , carbon monoxide , nitrogen oxides , sulfur oxide , hydrogen chloride , CSCl₂ .
- Hazardous Polymerization** : Will not occur.

FOLPAN 80 WDG
R-6811.DPD
10. STABILITY AND REACTIVITY (continued)

Hazardous properties : Alkali materials, such as lime and Bordeaux mixture will reduce fungicidal activity
Conditions to avoid : Protect from (sun)light , sources of heat , open flame , moisture .

11. TOXICOLOGICAL INFORMATION

Rat oral LD50 [mg/kg] : > 5000
Rabbit dermal LD50 [mg/kg] : > 2000
Rat inhalation LC50 [mg/l/4h] : Not applicable
Dermal irritation (rabbit) : Mildly irritating
Eyes irritation (rabbit) : Irritating to eyes.
Sensitization : Folpet Technical: Guinea pig maximization test: Extreme sensitizer
Carcinogenicity : Folpet : A two-year feeding study of Folpan indicated duodenal tumors in mice after repeated administration of high dose levels. The NOEL (No Observed Adverse Effect Level) was 450 ppm. No evidence of carcinogenicity was observed in long-term studies with rats. Information on the mechanism of tumor formation establishes a threshold for the duodenal tumors, and indicates that this tumor type is not relevant for human risk assessment at likely exposure levels.
Mutagenicity : Folpet : Not mutagenic (in-vivo tests)
Reproductive toxicity : Folpet : Not teratogenic in animal experiments

12. ECOLOGICAL INFORMATION

96 H-LC50 - Rainbow trout [µg/Kg] : 0.103
48 H-EC50 - Daphnia magna [mg/l] : 0.14
72 H-EbC50 - Algae [mg/l] : 23.4
72 H-ErC50 - Algae [mg/l] : 157.8
LD50 Birds [mg/kg] : Folpet : >2000
Persistence and degradability : Folpet : The product is readily biodegradable .
Mobility : Folpet : Product does not leach to ground water.
Bioaccumulative potential : Folpet does not bioaccumulate in aquatic organisms .
On ingredients : Folpet : Low toxicity in actual use, due to its hydrolytic instability .
 Toxic to aquatic organisms (fish and algae), in laboratory experiments .

13. DISPOSAL CONSIDERATIONS

Disposal : Avoid release to the environment.
 Dispose in a safe manner in accordance with local/national regulations.

14. TRANSPORT INFORMATION

- **UN No.** : 3077
 - **Proper shipping name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (80% Folpet)
 - **Packing group** : III
 - **Class** : 9
 - **H.I. nr :** : 90
 - **ADR/RID**
 - **ADR class** : 9
 - **ADR Packing group** : III
 - **ADR Symbols** : Label 9 : Miscellaneous dangerous substances and articles.

FOLPAN 80 WDG

R-6811.DPD

15. REGULATORY INFORMATION

EU Classification : This product is provisionally labelled by the supplier in accordance with the suppliers understanding of the EU regulations :

Symbol(s)



R Phrase(s)

Xn: Harmful.
N: Dangerous for the environment.

S Phrase(s)

R36 - Irritating to eyes.
R40 - Limited evidence of a carcinogenic effect.
R43 - May cause sensitization by skin contact.
R50 - Very toxic to aquatic organisms.

S02 - Keep out of the reach of children.
S13 - Keep away from food, drink and animal feedingstuffs.
S20/21 - When using, do not eat, drink or smoke.
S24/25 - Avoid contact with skin and eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S35 - This material and its container must be disposed of in a safe way.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.

16. OTHER INFORMATION

Recommended uses and restrictions : None.

Text of R-phrases in heading 2

R20 - Harmful by inhalation.
R20/22 - Harmful by inhalation and if swallowed.
R36 - Irritating to eyes.
R36/37 - Irritating to eyes and respiratory system.
R36/38 - Irritating to eyes and skin.
R40 - Limited evidence of a carcinogenic effect.
R43 - May cause sensitization by skin contact.
R50 - Very toxic to aquatic organisms.

Print date

: 30/5/2005

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

End of document