



MAKHTESHIM
CHEMICAL WORKS LTD.

MATERIAL SAFETY DATA SHEET

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Revised edition no : 1

Date : 11/4/2005

Supersedes : 0/0/0

KESHET 2.5 EC

R-9855.DPD

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

Trade name : KESHET 2.5 EC
Chemical formula : C22H19Br2NO3
Common name of active ingredients : Deltamethrin
Use : Insecticide
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
Deltamethrin (ISO)	: 2.5 %	52918-63-5	258-256-6	-----	T; R23/25 N; R50-53
Aromatic C-10 solvent	: ca 73 %	64742-94-5	265-198-5	-----	Xn; R65
Alkylpolyglycoether	: ca 13 %	-----	-----	-----	Xi; R41
Alkylaryl sulfonates	: ca 2 %	-----	-----	-----	Xi; R36/38

3. HAZARDS IDENTIFICATION

Human Health Hazards : Harmful by inhalation and if swallowed.
Irritating to eyes and skin.
Harmful: may cause lung damage if swallowed.
Environmental hazard : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Eye contact : Redness , tears .
First aid
Inhalation : Remove victim to fresh air. Keep victim warm and at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.
Ingestion : Do not induce vomiting. Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Seek medical advice (show the label where possible).
Skin contact : Consult a doctor in the event of any complaints.
Remove affected clothing and wash all exposed skin area with soap and water, followed by warm water rinse.
Eye contact : In case of eye contact, immediately rinse with clean water for 10-15 minutes. Seek medical attention immediately.
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 : Not flammable . Combustible .
In case of fire, use : water spray , water fog , foam .
Special procedures : Fight fires from a protected location . Move containers away from fire without risk .
Dike fire control water for later disposal. Cool exposed containers with water spray.

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5. FIRE-FIGHTING MEASURES (continued)

- Special exposure hazards** : Thermal decomposition generates : carbon dioxide , carbon monoxide , nitrogen oxides , bromides , hydrogen bromide .
- Protection against fire** : Wear proper protective equipment. Wear self-contained breathing apparatus, rubber boots and thick rubber gloves.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Use appropriate protection (see section 8).
During cleaning activity, shut off ignition sources .
- 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. Contaminated soil layers have to be dug out.
- After spillage and/or leakage** : In the event of minor spillage: Absorb in sand or other inert material . Use appropriate container to avoid environmental contamination.
In the event of major spillage: Collect and contain as much free liquid as possible. Dike spills using absorbent or impervious materials such as sand or clay for later disposal.

7. HANDLING AND STORAGE

- Handling** : Do not breathe fumes . Avoid contact with skin and eyes.
- Storage** : Keep container tightly closed. Keep locked up. Keep only in the original container in a cool, well ventilated place. Keep at temperature not exceeding 50 °C . Keep container dry .

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Industrial hygiene** : Ventilation required. 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**
- TLV** : Deltamethrin : Not established
- Respiratory protection** : During spraying wear suitable respiratory equipment.
- Skin protection** : Wear suitable 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** : Liquid
- Colour** : Yellow - clear
- Odour** : characteristic
- Specific gravity** : 0.923
- Molecular weight** : Deltamethrin : 505.22
- Melting point [°C]** : Deltamethrin : 98 - 102
- Solubility in water** : Deltamethrin : 2 ppb
- Flash point [°C]** : Closed cup : 65.5
- Explosion limits - lower [%]** : 0.8 Aromatic solvent (C-10)
- Explosion limits - upper [%]** : 6.5 Aromatic solvent (C-10)

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10. STABILITY AND REACTIVITY

- Physico-chemical stability** : Stable under normal conditions.
Hazardous decomposition products : Thermal decomposition generates : carbon dioxide , carbon monoxide , nitrogen oxides , bromides , hydrogen bromide .
Hazardous reactions : Avoid contact with : strong acid , strong base .
Hazardous Polymerization : Will not occur.
Conditions to avoid : Protect from (sun)light , open flame and sources of heat .
Decomposes upon heating.

11. TOXICOLOGICAL INFORMATION

- Rat oral LD50 [mg/kg]** : 430
Rat dermal LD50 [mg/kg] : > 2000
Rat inhalation LC50 [mg/l/4h] : 1.25
Dermal irritation (rabbit) : Irritating to skin.
Eyes irritation (rabbit) : Irritating to eyes.
Sensitization : Guinea pig maximization test: Non sensitizer
Carcinogenicity : Deltamethrin : Not carcinogenic

12. ECOLOGICAL INFORMATION

- Ecological effects information** : The data below are for Deltamethrin .
LD50 Birds [mg/kg] : > 5000 (Mallard duck)
Birds LC50 [mg/kg] : 10000 (Bobwhite quail)
LC50 - fish [mg/l] : 0.001 - 0.01

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.** : 3352
- **Proper shipping name** : PYRETHROID PESTICIDE, LIQUID, TOXIC (2.5% Deltametrin)
- **Packing group** : III
- **Class** : 6.1
- **H.I. nr :** : 60
- **ADR class** : 6.1
- **ADR Packing group** : III

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)





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15. REGULATORY INFORMATION (continued)

- R Phrase(s)** : Xn: Harmful.
N: Dangerous for the environment.
: R20/22 - Harmful by inhalation and if swallowed.
R36/38 - Irritating to eyes and skin.
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 - Harmful : may cause lung damage if swallowed.
- S Phrase(s)** : 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.
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.
S62 - If swallowed, do not induce vomiting : seek medical advice immediately and show this container or label.

16. OTHER INFORMATION

Recommended uses and restrictions : None.

Text of R-phrases in heading 2 : R23/25 - Toxic by inhalation and if swallowed.
R36/38 - Irritating to eyes and skin.
R41 - Risk of serious damage to eyes.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 - Harmful : may cause lung damage if swallowed.

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