

SAFETY DATA SHEET

4/5/04

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

Dow AgroSciences Limited
Latchmore Court
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Herts SG5 1NH

Emergency Telephone Number: UK: 0870 600 2999
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Product Name: **LORSBAN* WG INSECTICIDE : MAPP 10139**

LV70: 77650 Issue Date: April 00 Ref: KAA17
Revised: May 04 (Section(s) 3-5, 8, 11, 12, 15 & 16)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Dangerous components (see section 16 for complete R-phrases):

			CAS	EC No
Chlorpyrifos	75 %	T; R25, N; R50/53	002921	-88-2 220-864-4
Inert ingredients	Balance			
Composition Code	EF1315			

3. HAZARDS IDENTIFICATION

Harmful if swallowed. Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Ingestion

Do not induce vomiting. Call a physician and/or transport to emergency facility immediately. The decision of whether to induce vomiting or not should be made by a physician.

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Eye Contact

Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact

Wash off in flowing water or shower, use soap if available.

Inhalation

Remove to fresh air. Consult a physician.

Note to Physician

This material contains a cholinesterase inhibitor. Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PA M/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

5. FIRE-FIGHTING MEASURES**Extinguishing Media**

Water fog or fine spray. Carbon dioxide. Dry chemical powder. Foam.

Hazardous Combustion Products

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/ or irritating. Combustion products include: Hydrogen chloride. Sulphur oxides. Nitrogen oxides.

Protection of Firefighters

Wear protective clothing and use self-contained breathing apparatus.

Additional Information

Contain runoff to prevent entry into water or drainage systems.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Wear appropriate safety clothing and eye/face protection (see Section 8).

Environmental Precautions

Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

Methods of Cleaning Up

Contain and sweep up the material. Collect all waste material and place in closable marked containers. If further assistance is required, telephone the emergency contact number.

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7. HANDLING AND STORAGE

Handling

Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work.

Storage

Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chlorpyrifos: Dow AgroSciences IHG is 0.1 mg/m³ (skin).

Engineering Controls

Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

Respiratory Protection

For most conditions, no respiratory protection should be needed. However, when airborne exposure guidelines and/or comfort levels may be exceeded use an approved air-purifying respirator. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Hand/Skin Protection

For brief contact, no precautions other than clean body-covering clothing and chemical resistant gloves should be needed. Use chemical resistant gloves classified under standard EN 374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Nitrile. Polyvinyl chloride ("PVC" or "vinyl"). Neoprene.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material. For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

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Eye/Face Protection

Use safety glasses. Where contact with this material is likely, chemical goggles are recommended because eye contact may cause discomfort even though it is unlikely to cause injury.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: granules
Colour	: tan
Odour	: mild mercaptan
Bulk density	: 0.58 g/cm ³ (tapped)
Flash point	: not applicable to solids
Auto-ignition temp.	: >400 deg.C
Explosive properties	: not explosive
Oxidising properties	: non-oxidising
pH	: 7.84 approx. (1% aqueous suspension)
Water solubility	: disperses
Flammability-LFL	: not flammable
Flammability-UFL	: not flammable

10. STABILITY AND REACTIVITY**Chemical Stability**

Is stable under normal storage conditions.

Conditions to Avoid

None determined.

Materials to Avoid

Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION**Ingestion**

Moderate toxicity if swallowed. The oral LD50 for rats is 519 mg/kg.

Skin Contact

The dermal LD50 for rats is >5000 mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Prolonged or repeated exposure may cause slight skin irritation.

Sensitisation

Non-sensitising to guinea pig skin.

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Eye Contact

May cause slight temporary eye irritation.

Inhalation

No adverse effects anticipated by this route of exposure incidental to proper handling.

Other Information

Excessive exposure may cause organophosphate type cholinesterase inhibition. Not carcinogenic. Not mutagenic. Not toxic for reproduction.

12. ECOLOGICAL INFORMATION**Persistence and Degradability**

Assessment largely or completely based on data for active ingredient.

Does not leach in soils and is therefore unlikely to contaminate ground water. Half-life in soils is dependent on soil type and conditions and is approximately 2-34 days.

Aquatic Toxicity

Based on data for the formulation.

Material is very toxic to fish on an acute basis (LC50<1mg/L).

Material is very toxic to aquatic invertebrates on an acute basis (EC50<1mg/L).

Material is toxic to algae (1mg/l< IC50 <10 mg/l).

Avian Toxicity

Based on data for the formulation.

Material is moderately toxic to birds on an acute basis (50mg/kg <LD50 <500mg/kg).

Other Information

LD50 for bees is 1.1 microgram/bee.

LD50 for earthworms is 681mg/kg.

13. DISPOSAL CONSIDERATIONS

Very toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. Do not re-use container for any purpose.

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14. TRANSPORT INFORMATION**Road & Rail**

Proper shipping name: 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S. (Contains Chlorpyrifos 75%)
Truck/Rail ADR/RID : 9 Label : < >
Classification Code : M7
Packing Group : III
Kemler Code : 90 UN Number : 3077
Tremcard Nr. CEFIC : 90GM7-III

Sea

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Contains Chlorpyrifos 75%)
Sea - IMO/IMDG Class: 9 UN Nr : 3077 Label: 9
Packing Group : III EMS : -
Marine Pollutant : Y (Y/N)

Air

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S
(Contains Chlorpyrifos)
Air-ICAO/IATA Class : 9 UN Nr : 3077 Label: 9
Sub Class :
Packing Group : III Pack Instr. Passenger : 911
Pack Instr. Cargo : 911

Remarks : Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

Hazard Symbol : Xn - Harmful
N - Dangerous for the Environment

Risk Phrases : Harmful if swallowed (R22).
Very toxic to aquatic organisms, may cause long-term
adverse effects in the aquatic environment (R50/53).

Safety Phrases : Keep out of reach of children (S2).
This material and its container must be disposed of
in a safe way (S35).
Use appropriate containment to avoid environmental
contamination (S57).

16. OTHER INFORMATION**Risk-phrases in Section 2**

R25 - Toxic if swallowed.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse
effects in the aquatic environment.

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The information herein is given in good faith and to the best of our knowledge but no warranty, express or implied, is made.