

REVISION

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY

Safety Data Sheet For: **MARAUD**

Common name of active ingredient: Chlorpyrifos
Intended use: For use only as a Horticultural Insecticide
Dilution: Dependent upon situation of use and application method
Refer to product label for full directions for use
Maximum individual dose: 1.5 litres product per hectare
Maximum number of treatments per hectare: 2 per annum

For further information contact: Scotts UK Professional, The Scotts Company (UK) Limited, Paper Mill Lane, Bramford, Ipswich England. IP8 4BZ. Telephone 01473 830492

24 Hour Emergency Telephone Line: 01865 407333
Date of Introduction: October 1998
Date of Withdrawal:
Date of Change: May 2000

2. COMPOSITION INFORMATION ON INGREDIENTS (Directive 91/155/EC & 93/112/EC)

Spec No. 007548

Ingredient(s)	Composition	CAS No.	Symbols	R Phrases
Chlorpyrifos	480 g/l (44.65% w/w)	002921-88-2	T; N	R24/25; R50-53
Solvent	Balance	-	Xn	R65

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3. HAZARDS IDENTIFICATION

Classification: **HARMFUL IF SWALLOWED AND IN CONTACT WITH SKIN**
(Supply: UK COPR) **MAY CAUSE LUNG DAMAGE IF SWALLOWED**
IRRITATING TO SKIN
FLAMMABLE

Symbol(s):



Ingestion: Harmful if swallowed. May cause lung damage if swallowed.

Eye contact: May cause moderate irritation.

Skin contact: Harmful in contact with skin, irritating to skin.

Inhalation: No adverse effects anticipated under normal conditions of use.

A cholinesterase inhibitor: **Do not use if under medical advice not to work with such compounds.**

PRECAUTIONS (From the label):

Chlorpyrifos is an anti-cholinesterase organophosphorus compound. DO NOT USE if under medical advice NOT to work with such compounds. IF SWALLOWED, do not induce vomiting: seek medical advice immediately and show this container or label. WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate. WHEN USING DO NOT EAT, DRINK OR SMOKE. WASH CONCENTRATE from skin or eyes immediately. DO NOT BREATHE SPRAY. WASH HANDS AND EXPOSED SKIN before meals and after work. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS. KEEP OUT OF REACH OF CHILDREN. DANGEROUS TO BEES. Do not apply to crops in flower or to those in which bees are actively foraging. Do not apply when flowering weeds are present. EXTREMELY DANGEROUS TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface waters or ditches with chemical or used containers. DO NOT ALLOW DIRECT SPRAY from broadcast air-assisted spraying equipment to fall within 18 metres of surface waters or ditches; direct away from water. DO NOT ALLOW DIRECT SPRAY from ground crop sprayers to fall within 5 metres of the top of the bank of any static or flowing water body, or 1 meter from the top of any ditch which is dry at the time of application. DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1 meter of the top of the bank of any static or flowing water-body. Direct spray away from water. THIS PRODUCT IS NOT ELIGIBLE FOR BUFFER ZONE REDUCTION UNDER THE LERAP SCHEME. KEEP IN ORIGINAL CONTAINER, lightly closed, in a safe place. WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank, and dispose of safely. DO NOT REUSE CONTAINER for any purpose. IF YOU FEEL UNWELL, seek medical advice (show label where possible).

4. FIRST AID MEASURES**SYMPTOMS OF POISONING**

These may include excessive sweating, headache, weakness, fainting and giddiness, nausea, stomach pains, vomiting, small pupils, blurred vision, muscle twitching.

If any of the above symptoms occur, particularly if there is known contamination:
STOP WORK, REST and call a doctor AT ONCE and show him the label.

FIRST AID

Ingestion: IF SWALLOWED, do not induce vomiting: seek medical advice immediately and show this container or label.

Eye contact: Immediately irrigate with eyewash solution or clean water, holding the eyelids apart for at least 15 minutes. Obtain immediate medical attention.

Skin contact: Take off immediately all contaminated clothing. Wash skin and hair immediately with water, followed by soap and water. Such action is necessary to minimise contact with skin. Contaminated clothing should be laundered before reuse. Seek medical attention if irritation persists.

Inhalation: Remove patient from exposure, keep warm and at rest. Obtain medical attention immediately.

GUIDE TO DOCTOR

'Mauraud' contains chlorpyrifos an anti-cholinesterase organophosphorus compound.

SPECIFIC TREATMENT:

1. IN ALL CASES AND AS EARLY AS POSSIBLE inject atropine sulphate 2 mg intravenously or pro rata for children and repeat (if necessary) until fully atropinised.
2. IF AVAILABLE administer pralidoxime intravenously, repeated 4-6 hourly for as long as atropine required.

OTHER MEASURES

1. Keep airway clear.
2. Watch respiration – intubation with endotracheal tube or tracheotomy may be necessary in conjunction with artificial respiration.
3. Put patient at complete rest in hospital for 24 hours at least.

CONFIRMATION OF DIAGNOSIS

By estimating cholinesterase activity (5 ml blood, unhaemolysed, collected in an anticoagulant).

5. FIRE FIGHTING MEASURES

Flammable product. Use foam, carbon dioxide water fog or fine spray extinguishant; avoid use of water-jet. Self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

Note: Rapid decomposition about 160° C. Closed containers may explode due to pressure build up when subjected to excessive heat or intensive fire. Keep containers cool by spraying with water. Contain run off to prevent entry into water or drainage systems.

Hazardous combustion products: hydrogen chloride, sulphur oxides, nitrogen oxides, dependent on intensity of fire.

6. ACCIDENTAL RELEASE MEASURES

Eliminate all ignition sources. Wear appropriate safety clothing and eye/face protection detailed in section 8.

Contain/absorb spillage with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number. Do not allow contamination of public drains or surface or ground waters. Collect up contaminated sand or earth, transfer to heavy duty plastic bags or drums and keep safe for disposal. Dispose of through a reputable waste disposal contractor. NB: Inform local water plc immediately if spillage enters drains and the National Rivers Authority or River Purification Boards if it enters surface or ground waters.



7. HANDLING AND STORAGE			
Product should be stored in compliance with local regulations. Store in a cool, dry, well ventilated place in the original container. Do not store near food, drink, animal feeding stuffs or fertilizers. Keep out of reach of children.			
Shelf life:	At least 2 years.		
Product packaging:	PET 1 litre; outers of 12.		
Special precautions:	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. Avoid eye and skin contact.		
8. EXPOSURE CONTROLS/PERSONAL PROTECTION			
Precautions (from the label) for normal use of the product: WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate. WHEN USING DO NOT EAT, DRINK OR SMOKE. DO NOT BREATHE SPRAY. WASH HANDS AND EXPOSED SKIN before meals and after work. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS. KEEP OUT OF REACH OF CHILDREN. KEEP IN ORIGINAL CONTAINER, tightly closed and in a safe place. WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely. DO NOT REUSE CONTAINER for any purpose. IF YOU FEEL UNWELL, seek medical advice (show label where possible).			
In case of accidental spillage :			
In addition to PPE listed above in gross spillage situations, it may be necessary to wear: Clean, long sleeved, body covering, full face respirator if there is any likelihood of splashing; Do not breathe vapour; Do not eat, drink or smoke; Wash thoroughly immediately after handling or at once if contaminated; Avoid skin and eye contact with product or contaminated surfaces; Keep people, animals and ignition sources away.			
If possible, decontaminate PPE before removal. (If after removal – wash separately.) Where this is not possible (before or after removal), dispose of as contaminated waste.			
Occupational Exposure Standard(s):			
Chlorpyrifos:			
OES: 0.2 mg/m ³ LTEL (8 hr TWA); 0.6 mg/m ³ STEL (15 min)			
Skin			
Solvent 100 ppm (manufacturer)			
9. PHYSICAL AND CHEMICAL PROPERTIES			
Physical nature:	Clear liquid	Flash point:	50-52° C (PMCC)
Appearance/odour:	Amber	Flammability:	Flammable
Water solubility:	Emulsifiable	Decomposition temperature:	160° C
Lipid solubility:	Not available	Explosion limits:	Not available
Specific gravity:	1.08 g/cm ³	pH:	Not available
Boiling point:	Not available	Other:	Freezing point range <-5° C
Oxidising properties:	None known		
10. STABILITY AND REACTIVITY			
Stability (normal conditions):	Stable		
Conditions to avoid:	Extremes of temperature, rapid decomposition occur above 160° C. Product undergoes exothermic decomposition which can lead to high temperatures and violent decomposition if heat developed is not removed.		
Incompatible with:	Strong basic, acidic or oxidising materials.		
Hazardous decomposition products:	See box 5		
11. TOXICOLOGICAL INFORMATION			
Acute Oral LD₅₀:	Product: (rats) 316 mg/kg		
Ingestion:	Product harmful if swallowed. May cause lung damage if swallowed.		
Acute Dermal LD₅₀:	Product: (rats) >2000 mg/kg		
Skin:	A single prolonged exposure to product is not likely to result in the material being absorbed through skin in harmful amounts. Short single exposure may cause skin irritation.		
Eyes:	Product may cause moderate eye irritation.		
Inhalation:	Product unlikely to cause harmful effects under normal conditions of handling and use		
Other:	Product is non sensitising to guinea pig skin.		
	Product single dose oral toxicity is considered to be moderate. Excessive exposure may cause organophosphate type cholinesterase inhibition.		

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12. ECOLOGICAL INFORMATION

All information below is for the active ingredient chlorpyrifos:

Daphnia LC₅₀ (48h):	1.7µg/l (highly toxic to aquatic organisms)
Fish LC₅₀:	<0.1 mg/l (highly toxic to fish on an acute basis)
Birds LD₅₀:	50-500 mg/kg (moderately toxic to birds on an acute basis)
Bees:	Toxic
Biodegradation:	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 60 days.
Other:	None known
Precautions (from the label):	DANGEROUS TO BEES. Do not apply to crops in flower or to those in which bees are actively foraging. Do not apply when flowering weeds are present. EXTREMELY DANGEROUS TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface waters or ditches with chemical or used containers.

13. DISPOSAL CONSIDERATIONS

User: Empty containers should not be used for any other purposes. Toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used containers. Dispose of product and empty containers according to the Code of Practice for the Use of approved Pesticides in Amenity and Industrial Area (NAAC/NTC). Disposal should be in accordance with local or national legislation.

Surplus Bulk Product/Spillage: Via local authority or authorised waste disposal contractor.

14. TRANSPORT INFORMATION

UN No:	3017	EmS:	6.1-01
Proper Shipping Name:	Organophosphorus Pesticide, Liquid, Toxic, Flammable (Chlorpyrifos 44.6% Petroleum Distillate)	MFAG:	505
Class:	6.1 subsidiary risk class 3	ADR Item No:	72° C
Packing Group:	III	Marine Pollutant:	Severe Marine Pollutant
		UK Road Category:	3

15. REGULATORY INFORMATION

Classification: HARMFUL IF SWALLOWED AND IN CONTACT WITH SKIN **Symbol(s):**

MAY CAUSE LUNG DAMAGE IF SWALLOWED

IRRITATING TO SKIN

FLAMMABLE



This product is classified under the Control of Pesticides Regulations 1986
The Control of Substances Hazardous to Health Regulations 1999 may apply to the use of this product at work.

PRECAUTIONS (From the label):

Chlorpyrifos is an anti-cholinesterase organophosphorus compound. DO NOT USE if under medical advice NOT to work with such compounds. IF SWALLOWED, do not induce vomiting; seek medical advice immediately and show this container or label. WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate. WHEN USING DO NOT EAT, DRINK OR SMOKE. WASH CONCENTRATE from skin or eyes immediately. DO NOT BREATHE SPRAY. WASH HANDS AND EXPOSED SKIN before meals and after work. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS. KEEP OUT OF REACH OF CHILDREN. DANGEROUS TO BEES. Do not apply to crops in flower or to those in which bees are actively foraging. Do not apply when flowering weeds are present. EXTREMELY DANGEROUS TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface waters or ditches with chemical or used containers. **DO NOT ALLOW DIRECT SPRAY** from broadcast air-assisted spraying equipment to fall within 18 metres of surface waters or ditches; direct away from water. **DO NOT ALLOW DIRECT SPRAY** from ground crop sprayers to fall within 5 metres of the top of the bank of any static or flowing water body, or 1 meter from the top of any ditch which is dry at the time of application. **DO NOT ALLOW DIRECT SPRAY** from hand-held sprayers to fall within 1 meter of the top of the bank of any static or flowing water-body. Direct spray away from water. THIS PRODUCT IS NOT ELIGIBLE FOR BUFFER ZONE REDUCTION UNDER THE LERAP SCHEME. KEEP IN ORIGINAL CONTAINER, lightly closed, in a safe place. WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank, and dispose of safely. DO NOT REUSE CONTAINER for any purpose. IF YOU FEEL UNWELL, seek medical advice (show label where possible).

Current Registration Number:	UK	Eire
	MAFF 09274	N92051
Previous Registration Number(s):	Not applicable	



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16. OTHER INFORMATION

For further advice authorised persons (Doctor/Veterinary Surgeon) may contact the National Poisons Information Service Centre:

Belfast: 01232 240503
Birmingham: 0121 507 5588 or 0121 507 5589
Cardiff: 029 2070 9901
Dublin: 00 353 1 837 9964 or 00 353 1 837 9966
Edinburgh: 0131 536 2300 or 0131 536 1000
Leeds: Veterinary only: 01132 450530
London: 020 763 59191
Newcastle: 01912 820300 or 01912 325131

Reference number: SDS No: 002
Version: 3
Date of Sheet: 14th July 2000

The appearance of a 'REVISION' stamp and or colour line in the left hand side border of any of the boxes indicates a change in the information to the previous issue.

The information on this sheet is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non standard uses of the product nor where instructions or recommendations are not followed.