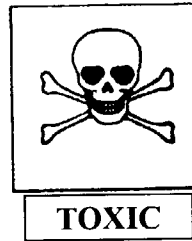


Product Safety Data Sheet

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

Product name: **'Gamma-col' TURF**
 MAFF No: 07868

Company: Miracle Professional
 Salisbury House
 Weyside Park
 Catteshall Lanc
 Godalming
 Surrey GU7 1XE



Phone number: 01483 410210
 Emergency phone: 01865 407333

2. COMPOSITION/INFORMATION ON INGREDIENTS

An insecticidal formulation. An aqueous suspension containing 800 g/l lindane with dispersing, stabilising and colouring agents.
 EEC-No: 200-401-2 Lindane EEC-No: 231-555-9 Sodium nitrite
 EEC-No: 203-473-3 Ethylene glycol

Hazardous ingredient(s)	CAS No.	g/l	Symbol	R Phrases
Lindane	000058-89-9	800	T, N	R23/24/25-R36/38-R50/53
Ethylene glycol	000107-21-1	< 100	Xn	R22
Sodium nitrite	007632-00-0	< 10	O, T	R8-R25

3. HAZARDS IDENTIFICATION

Toxic if swallowed.
Harmful in contact with skin.
Very toxic to fish.

4. FIRST-AID MEASURES

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation Remove patient from exposure, keep warm and at rest.
 Obtain medical attention as a precaution.

Skin Contact Take off immediately all contaminated clothing. Wash skin immediately with water, followed by soap and water. Such action is essential to minimise contact with skin. Contaminated clothing should be laundered before re-issue.

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

Ingestion If swallowed seek medical advice immediately and show the container, label or this Data Sheet, if possible. *Induce vomiting*, if this has not already occurred, by tickling the back of the throat with a clean, blunt instrument (e.g., spoon handle)

Medical Advice: Symptomatic. Do not give vasopressor drugs (e.g., epinephrine, adrenaline, ephedrine, etc.) as there may be danger of producing cardiac arrhythmia.

5. FIRE-FIGHTING MEASURES

Keep fire exposed containers cool by spraying with water.

Extinguishing media

Small fires: use foam, carbon dioxide or dry powder extinguishant.
Large fires: use foam or water-fog; avoid use of water jet. Contain run-off water with, for example, temporary earth barriers.

Protective Equipment:

Self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and coveralls.

Clean up methods: Cover spillage with moist sand, soil or sawdust. Transfer to a container for disposal. Wash the spillage area with water. Washings must be prevented from entering surface water drains.

Spillages or uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

7. HANDLING AND STORAGE

7.1 Handling

Read the label before use.

Avoid contact with skin and eyes. Do not breathe spray.

When using do not eat, drink or smoke. Wash face and hands before eating drinking or smoking.

7.2 Storage

Keep in original container, tightly closed, out of reach of children. Keep away from food, drink and animal feeding stuffs.

Protect from frost.

Storage Life: Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection: When using this product refer to the label for details.

Occupational Exposure Limits:

Hazardous ingredient:	Ethylene glycol	OES/HSE	
	(Particulate)		
	8 hr TWA	10 mg/m ³	
	(Vapour)		
8 hr TWA	60 mg/m ³		
15 min STEL	125 mg/m ³		
Hazardous ingredient:	Lindane	OES/HSE	
	8 hr TWA	0.5 mg/m ³	
	15 min STEL	1.5 mg/m ³	

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	liquid	Colour:	pale blue
Odour:	not available	pH (Value)	not available
Boiling point (°C):	not available	Melting point (°C):	not available
Auto Ignition Temp (°C):	not available	Flash Point (°C):	not available
Explosive Properties:	not applicable	Oxidising Properties:	not applicable
Vapour Pressure (mm Hg):	not available	Solubility (Water):	miscible in/with water
Viscosity (mPas):	20 - 35 (Casson)	Density (g/ml):	1.4

10. STABILITY AND REACTIVITY

Hazardous Decomposition Product(s): Combustion or thermal decomposition will evolve toxic and irritant vapours.

11. TOXICOLOGICAL INFORMATION

Inhalation: Unlikely to cause harmful effects under normal conditions of handling and use.

Skin Contact: *Harmful in contact with skin.*

May cause skin irritation.

Dermal Median Lethal Dose rat approx 1500 mg/kg (by calculation).

Eye Contact: May cause eye irritation.

Ingestion: *Toxic if swallowed.*

Oral Median Lethal Dose rat approx 150 -500 mg/kg (by calculation)

Chronic Toxicological Effects / Long term exposure No long term risks to man are associated with the normal handling and use of this material.

12. ECOLOGICAL INFORMATION

This ecological assessment is calculated from data available on the components of the formulation.

Ecotoxicity: *Very toxic to fish.* LC₅₀ rainbow trout 96 hours approx 40 ug/l.

Dangerous to bees. do not use at flowering stage.

13. DISPOSAL CONSIDERATIONS

Do not contaminate ponds, waterways, or ditches with chemical or used containers. Surplus product and packaging must be disposed of as detailed in the Code of Practice for the Use of Approved Pesticides in Amenity and Industrial Areas (NAAC/NTC publication).

Empty containers should be rinsed. Empty containers should not be used for other purposes.

Disposal should be in accordance with local or national legislation.

14. TRANSPORT INFORMATION

Road transport ADR/RID	UN No:	UN2996
	Class-primary:	6.1 Toxic substance
	Number/letter:	71 / (c)
	Proper shipping name:	2996 ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, LINDANE MIXTURE
Maritime transport IMDG	UN No:	UN2996
	Class-primary:	6.1 Toxic substance
	UN Pack Group:	III
	Proper shipping name:	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, (contains lindane 80%)
	Marine pollutant:	Yes
Air transport ICAO/IATA	UN/ID No:	UN2996
	Class-primary:	6.1 Toxic substance
	UN Pack Group:	III
	Proper shipping name:	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, (contains lindane 80%)

15. REGULATORY INFORMATION

Classification:	TOXIC	Hazard Symbol:	T
Risk Phrases:	R23/24/25 R36/38	Toxic by inhalation, in contact with skin and if swallowed. Irritating to eyes and skin.	
Safety Phrases	S2 S13 S20/21 S26 S45	Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).	

This product is covered by, and labelled in accordance with, the Control of Pesticides Regulations, 1986.
Users should ensure that they comply with any relevant local or national legislation.

16. OTHER INFORMATION

This product was previously marketed by Zeneca (MAFF 06826) and by ICI (MAFF 05450).
Product packed in 1 litre polyethylene terephthalate (PET) bottle.
Use: To control a wide range of insect pests in amenity turf.
'Gamma-col' is the property of a ZENECA Group company.

This data sheet was prepared in accordance with Directives 91/155/EC and 93/112/EC.

The information on this sheet is not a specification and 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 use of the product nor where instructions or recommendations are not followed.