



Material Safety Data Sheet

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

Product Name GREEN MUSCLE TC / OF
Technical Material or Oil Formulation for microbial pest control agent

Supplier Technical Material / ULV Oil Formulation
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Product characterisation Spore concentrate of insect pathogenic fungus *Metarhizium anisopliae* var. *Acridum*, approx. 5×10^{10} conidia/g powder

3. HAZARDS IDENTIFICATION

Health effects

Skin	Non-irritant.
Eyes	Non-irritant.
Inhalation	Not an inhalation hazard under normal conditions of use. Certain individuals may become sensitised to this material, as with any other proteinaceous dust.
Ingestion	Low toxicity product. It is extremely unlikely that a sufficient quantity would be accidentally swallowed to cause any harm.
Physical/chemical effects	None known

4. FIRST AID MEASURES

Skin contact Wash with water and soap as a precaution.
Eye contact Irrigate the eye with water for 15 minutes. If any irritation persists obtain medical attention.
Inhalation Clear any blocked airways. Remove affected person to fresh air. Seek medical advice if any signs of sensitisation (pain in chest, headache, flu like symptoms), anaphylactic shock for the hypersensitive or recovery is delayed.

5. FIRE-FIGHTING MEASURES

Extinguishing media Foam, dry powder, carbon dioxide, or water spray.
Extinguishing media which must not be used for safety reasons Not applicable.
Special exposure hazards This product does not burn readily, but as with many organic powders, flammable dust clouds may be formed in air. Avoid creating dust and keep away from sources of ignition.
Special protective equipment Chemical protections suit, suitable gloves and boots, and self-contained for fire-fighters breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use respiratory protection and protective clothing. Ensure adequate ventilation.
Environmental precautions	Do not flush into surface water or sanitary sewer system.
Methods for cleaning up	Use a suitable vacuum cleaner, to avoid the generation of airborne dust. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Dampen air by spraying a fine mist of water - spores heavier; less air borne dust.

7. HANDLING AND STORAGE

Handling precautions	Do not eat, drink or smoke whilst handling the product. Avoid formation of respirable particles.
Storage conditions	The product swells on contact with water - Do not wear contact lenses. Avoid wet and humid conditions. Store away from light in a cool, dry and dark place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters	UK HSE EH40 Dust: 10mg/m ³ 8 - hour TWA total inhalable dust. 4 mg/m ³ 38 - hour TWA respirable dust.
Engineering measures	Local exhaust ventilation required if dust is created.
Personal protection equipment.	
Respiratory protection	Effective dust mask (e.g. 3M Dust Respirator: 8810).
Hand protection	Rubber or plastic gloves.
Eye protection	Goggles.
Skin and body protection	Lightweight protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour	Grey / Green
Form	Powder
Odour	None.
pH as supplied	Not applicable.
Boiling point/range	Not applicable.
Melting point/range	Not applicable.
Flash point	Not applicable.
Flammability (solid, gas)	Not determined.
Autoignition temperature	Not determined.
Explosive properties	This product has no explosive properties, except in the event of dust formation.
Oxidising properties	Not an oxidiser.
Vapour pressure	Not applicable.
Solubility (Water solubility)	Insoluble.
Partition coefficient (n-octanol/water)	Not applicable.

10. STABILITY AND REACTIVITY

Stability	Stable at ambient temperatures.
Conditions to avoid	Avoid extremes of temperature and wet and humid conditions.
Materials to avoid	No special precautions other than good housekeeping of chemicals.
Hazardous decomposition products	No decomposition if stored normally.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	LD ₅₀ /ORAL/RAT (Limit test) > 2000 mg/kg.
Eye irritation:	Non-irritant (rabbit).
Skin irritation:	Non-irritant (rabbit).
Acute pulmonary toxicity/infectivity:	LC ₅₀ > 4850 mg/m ³ , Non-infective to mammals (rat).
Acute intra - peritoneal injection:	Non-infective to mammals (rat).
Mutagenicity:	(Not mutagenic in AMES Test).

12. ECOLOGICAL INFORMATION

Non pathogenic to: fish, *Daphnia*, algae.

13. DISPOSAL CONSIDERATIONS

Unwanted material should be incinerated or sterilised in an autoclave for 40 minutes at 120°C and then disposed of as non-hazardous waste in accordance with local regulations.

14. TRANSPORT INFORMATION

UK road/rail	Not classified as dangerous in the meaning of transport regulations
IMDG	Not classified as dangerous in the meaning of transport regulations
ICAO	Not classified as dangerous in the meaning of transport regulations
ADR	Not classified as dangerous in the meaning of transport regulations

15. REGULATORY INFORMATION

Supply classification	
Hazard symbol(s)	None
Risk phrases	May cause sensitisation by inhalation
Safety phrases	When handling or spraying wear suitable respiratory equipment

16. OTHER INFORMATION

Recommended use Active ingredient for microbial control agent.

Further information

Product classified and safety data sheet produced according to EEC directives as implemented in the UK by the Chemicals (Hazards Information and Packaging) Regulations.

The information contained in this safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and represents the most up to date information. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risk as required by other health and safety legislation
