

MSDS Number: 320

Agrichem (International) Limited

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Material Safety Data Sheet

SECTION 1 Identification of Product Name and Company	
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Product Name:	Hykeep
Synonyms:	Tecto Dust, H204
Intended Use:	Fungicide on stored ware potatoes.

SECTION 2 Hazards Identification	
Health hazards:	Slight. No specific irritation to eyes, skin or respiratory system are anticipated, but like any nuisance dust, mechanical irritation may result from particulates, in eyes or throat.
Environmental hazards (in case of accident):	Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

SECTION 3 Composition/Information on Ingredients		
Formulation:	Dust containing 2% w/w thiabendazole	
<u>IUPAC Names:</u>	<u>CAS Numbers:</u>	<u>Concentration:</u>
2-(4-thiazolyl) -1H- benzimidazole/thiabendazole	148 - 79 - 8	2% w/w
Class: N; R50/53		
See Section 16, Other Information for text of R Phrases.		

SECTION 4 First Aid Measures	
<u>First Aid</u>	
Inhalation:	Remove patient to fresh air. If discomfort continues seek medical attention.
Ingestion:	If large quantities are ingested drink plenty of water and seek immediate medical attention. DO NOT induce vomiting.
Skin Contact:	Remove contaminated clothing. Wash thoroughly with soap and water.
Eye Contact:	Flush with plenty of water for at least 5 minutes. Seek medical attention if irritation occurs or persists.
Guide to Doctor:	Accidental ingestion of large amounts of thiabendazole may cause the following adverse reactions: gastrointestinal disorders, dizziness, hypersensitivity reactions. Peak plasma concentration is reached in 1 - 2 hours and 90% is excreted in 24 hours. Underlying kidney disease may be aggravated by exposure. No specific antidote is known. No case of human poisoning on record.

SECTION 5 Fire Fighting Measures	
Combustability	Non flammable.
Suitable extinguishing media:	Extinguish preferably with water, foam, carbon dioxide or all purpose dry chemical. Fire fighters should wear breathing apparatus and full protective equipment. Do not use direct jet of water.
Special hazards during fire fighting :	Combustion products are toxic and/or irritant. Prevent contaminated extinguishing media from seeping into ground or spreading uncontrollably. As with all organic dusts, may generate an explosive mixture when dispersed in air in large quantities. Avoid creating dusty conditions
Hazardous combustion products:	Toxic gases: carbon monoxide, carbon dioxide, nitrogen oxides, sulphur dioxide and hydrogen chloride.
PPE for fire fighting:	Use self-contained breathing apparatus. Wear protective equipment.

SECTION 6 Accidental Release Measures	
Personal protection:	Avoid contact with skin, eyes or clothing. Do not breathe dust. Avoid contact with naked flame or other sources of ignition. Wear suitable PPE.
Environmental precautions:	Harmful to fish or aquatic life. Avoid contamination of soil or surface waters by product, or run off from emergency activities.
Spillage and Decontamination:	Contain spillage and carefully sweep, vacuum or shovel up material, avoiding the creation of dusty conditions. Place spilled material in a marked container for disposal. NB. Inform local Water PLC immediately if spillage enters drains, and report any contamination of surface water or ground waters to the National Rivers Authority or River Purification Board.

SECTION 7 Handling and Storage	
Handling:	A Toxic dust respirator is recommended in high dust concentrations. Protective gloves (e.g. Nitrile) recommended when handling product, treated potatoes or contaminated equipment. Protective faceshield recommended to avoid mechanical irritation. Coveralls required when handling product, treated potatoes or contaminated equipment. Maintain good ventilation at all times. Avoid high dust concentrations. Use local exhaust ventilation where appropriate.
Storage:	Avoid creating dust, eliminate all sources of ignition in dusty conditions. Store in a cool dry place, out of reach of children/animals and away from unauthorised persons. Storage life 2 years in unopened container
Packaging:	20 kg multiply paper sacks with LDPE liner.

SECTION 8 Exposure Controls/Personal Protection**National Occupational Exposure Limits.**

None assigned in current edition of UK health and Safety Executive (HSE) publication EH 40. Current occupational exposure Limit for dry powder alone is 5mg/m³ (8 hour) or 10mg/m³ (10 minute).

General: Change work clothes daily. When using do not eat, drink or smoke. Wash hands and exposed skin before meals and after work. Avoid ingestion. Clean all protective equipment thoroughly after each day's use.

Engineering measures to reduce exposure.

Breathing protection: Dust mask

Eye protection: Wear chemical splash goggles.

Hand protection: Wear chemical resistant gloves.

Body protection: Wear heavy duty work clothes e.g. coveralls.

SECTION 9 Physical and Chemical Properties

Appearance: Fine brown powder

Odour: Virtually odourless

Melting Point: not applicable

Auto Ignition Temperature:

Boiling Point: not applicable

Solubility in Water: not established

pH:

Solubility in Organic Solvents:

Flash Point: not established

Vapour Density: Not applicable

Explosion Limits:

Density: Bulk 28.5 g/ tapped

Vapour Pressure: Not applicable.

SECTION 10 Stability and Reactivity

Conditions to avoid: Stable under normal conditions of storage and use

Materials to avoid: Not known.

Hazardous decomposition product: carbon monoxide, carbon dioxide, nitrogen and sulphur compound

SECTION 11 Toxicological Information

Inhalation: TBZ (a.i.) subacute (mouse) 70 mg/m³ 6 hr/day for 5 days /week for 4 weeks - no clinical sign of drug effect.

Inhalation LC₅₀:

Oral LD₅₀: TBZ (a.i.)(rat) 3100 mg/kg (mouse) 3600 mg/kg

Skin Contact: (rabbit) non-irritating to intact or non-abraded skin

Dermal LD₅₀: not established

Eye Contact: (rabbit) essentially non-irritating, non-sensitising

Mutagenic Data: non-mutagenic, carcinogenic, teratogenic.

SECTION 12 Ecological Information	
Mobility, persistence, degradability:	Not known.
Bioaccumulation:	In studies with bluegill sunfish and catfish Thiabendazole depurated rapidly within 14 days to less than 95% of the applied level. For active ingredient: Acute LD ₅₀ (Salmo trutta, Trout) 0.55mg/l; (96 hr).
Ecotoxicity:	Growth inhibition, algae EC ₅₀ , 8.88mg/l. Toxicity to aquatic invertebrates: (Daphnia magna, 48hr) EC ₅₀ 0.81 mg/l. LC ₅₀ 0.34mg/l.

SECTION 13 Disposal Considerations	
Waste Disposal: (including containers)	By incineration in accordance with the current UK legislation. For minor incidents or unwanted product follow the guidance of the disposal of pesticides and containers as given in part 5 of the MAFF/HSE Pesticide Code of Practice for the safe usage of Pesticides on Farms and Holdings. Empty sacks may be burnt at high temperatures. Avoid contamination by smoke.

SECTION 14 Transport Information	
	Not classified as dangerous in the meaning of the transport regulations. UN Number: Packing Group:
Sea	
IMDG Class-primary:	Not classified
Road/Rail	
CDGCPL 2 (1996):	Not classified
Air	
IACO:	Not classified

SECTION 15 Regulatory Information	
MAPP No:	12704
Classification according to the current UK Chemicals (Hazard Information and Packaging g for Supply) Regulations	
Contains:	2-(4-thiazolyl) -1H- benzimidazole/thiabendazole
Risk Phrases:	R52/53 HARMFUL TO AQUATIC ORGANISMS. MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
Safety phrases:	S35 This material and its container must be disposed of in a safe way. S61 Avoid release to the environment. Refer to special instructions/safety data sheet.

SECTION 16 Other Information	
N; R50/53	This data sheet was prepared in accordance with Directive 93/112/EC Dangerous for the environment. Very toxic to aquatic organisms. May cause long –term adverse effects in the aquatic environment.
<p>The data given in this sheet is based on current knowledge and experience and is given in good faith but without guarantee of accuracy and no liability is accepted whatsoever for any insufficiency or inaccuracy in such data in any case whatsoever.</p> <p>The purpose of the Material Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regards to materials, properties or use.</p>	