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Agrichem (International) Limited**Material Safety Data Sheet**

SECTION 1 Identification of Product Name and Company	
Agrichem (International) Limited	Industrial Estate, Station Road, Whittlesey, PETERBOROUGH, Cambridgeshire PE7 2EY . Tel: (01733) 204019 Fax: (01733) 204162.
e-mail contact	admin@agrichem.co.uk
Product Name:	HY-TL
Synonyms:	H142, H144, H145, H150
Intended Use:	Fungicidal seed treatment

SECTION 2 Hazards Identification	
Main Hazard:	Very toxic to aquatic organisms. Harmful by inhalation and if swallowed. Consumption of alcohol increases toxic effect (antabuse effect). Irritating to Eyes and Skin. May cause sensitization by skin contact.
Inhalation:	Unlikely to be inhaled, due to its physical properties, except if anspration occurs. Thiram component is irritating to respiratory tract when dry. Remove patient to fresh air. If dispersion is strongly heated it may release acidic fumes which are corrosive to the respiratory tract.
Ingestion:	Thiram component along with alcohol causes severe toxic symptoms and skin flushes especially in dry powder form. Thiabendazole is relatively non toxic by this route. Max daily dose in humans: 3gs active.
Eye contact:	Irritating to eyes.
Skin contact:	Prolonged contact may sensitise skin by defatting.

SECTION 3 Composition/Information on Ingredients		
Formulation:	Aqueous suspension concentrate	
<u>IUPAC Names:</u>	<u>CAS Numbers:</u>	<u>Concentration:</u>
Tetramethyl Thiuram Disulphide/Thiram	137 - 26 - 8	300 g/l, 25.64% w/w
Class: [Xn] R20/22; [Xi] R36/38, R43,R48/22 ; [Xn] R50/53		
2-(4-thiazolyl)-1H-benzimidazole/Thiabendazole	148 - 79 - 8	225 g/l, 19.23% w/w
Class: [N] R50, R53		
Glycol Class: [Xn] R22		<10%
See 16 Additional Information for text of R phrases.		

SECTION 4 First Aid Measures	
<u>First Aid</u>	If a person feels unwell after coming into contact with this product then seek medical advice. Remove contaminated clothing and wash thoroughly with clean water.
Inhalation:	Clear mouth, nose and throat, seek medical attention.
Ingestion:	DO NOT induce vomiting. Wash out mouth with water and give 200-300 mls warm water to drink. Seek medical attention immediately.
Skin Contact:	Remove contaminated clothing and wash affected areas thoroughly with soap and water. Seek medical advice if irritation persists.
Eye Contact:	Irrigate with water for at least 15 minutes and seek medical advice.
Guide to doctor:	Show this sheet where possible. No specific antidote, treat symptomatically. Thiabendazole is a therapeutically active compound. It is rapidly absorbed when ingested with peak plasma level occurring within 1 - 2 hours. Essentially eliminated within 24 hours. Thiram is a dithiocarbamate fungicide. Symptoms of poisoning include vomiting, diarrhoea, nausea, weakness, fatigue.

SECTION 5 Fire Fighting Measures	
Extinguishing media:	Keep containers cool, by spraying with water. Alcohol or polymer foam, Carbon dioxide or dry chemical powder. Do NOT use water jet.
Exposure hazards:	Virtually non flammable as supplied, residue after evaporation of water may support combustion. Thermal decomposition of burning may release oxides of carbon, sulphur, phosphorous and other toxic gases or vapours.
Protection of firefighters:	Respiratory protective equipment MUST be worn. Do not contaminate drains, soil or source waters with chemically contaminated water. Retain for safe disposal.

SECTION 6 Accidental Release Measures	
Personal precautions:	Avoid contact with skin or eyes. Do not inhale mists. Avoid ingestion.
Environmental precautions:	Harmful to fish and aquatic life. Do not allow chemicals or used container to contaminate ponds, ditches or other water courses. Prevent product from entering drains.
Spillage and Decontamination:	Use appropriate personal protective equipment. Absorb and contain spillages with sand, earth, etc and collect for storage in a safe place prior to disposal. DO NOT flush with water. NB. If contamination occurs inform local water PLC immediately. Report any contamination of surface water or ground waters to the National Rivers Authority or River Purification Board

SECTION 7 Handling and Storage	
Handling:	Liquid formulation is not normally associated with the production of dust. Avoid contact with skin or eyes. Wear protective gloves when handling the concentrate. Wash concentrate from skin or eyes immediately. Do not inhale spray mist or vapours, wear a spray mask. Avoid ingestion. When using do not eat, drink or smoke.
Storage:	Store away from heat, in tightly closed, original container. Protect from frost. Keep separate from animal feeding stuffs and fertilizers, segregate from other agrochemicals in specified agrochemical store. Maximum shelf life 2 years at room temperature in unopened container.
Packaging:	25L HDPE jerrican.

SECTION 8 Exposure Controls/Personal Protection	
	When using do not eat drink or smoke. Wash hands and exposed skin before meals and after work.
Engineering measures:	Ensure there is sufficient ventilation of the area. Use local exhaust ventilation where dust may enter the workroom air.
Hand protection:	Wear suitable protective gloves (Nitrile), faceshield and water repellent barrier cream when handling the concentrate.
Respiratory protection:	Do not breathe spray mist. To avoid exposure to mist, wear a dust mask (conforming to BS2191 or BS6016).
Eye protection:	Safety goggles, face shield. Ensure eye bath is to hand.
Skin protection:	Wear suitable protective clothing, eg coveralls.



SECTION 9 Physical and Chemical Properties			
Appearance:	Pink viscous liquid		
Odour:	Slight		
Melting Point:	Not applicable	Auto Ignition Temperature:	No Data
Boiling Point:	Approx 100°C	Solubility in Water:	Practically insoluble in water.
pH:	8 - 10.5 at 20 °C	Solubility in Organic Solvents:	Soluble in aromatic hydrocarbons.
Flash Point:	Not applicable	Vapour Density:	No data
Explosive properties:	No data	Vapour Pressure:	No data
Density:	1.16 g/ml at 20 °C		

SECTION 10 Stability and Reactivity	
Stability :	Stable under normal conditions. Protect from frost and temperatures >100°C
Conditions to avoid:	Extremes of temperature. Protect from frost.
Materials to avoid:	Strong acids, strong bases, oxidising agents.
Hazardous combustion or decomposition product:	Oxides of carbon, nitrogen and sulphur. Burning produces irritant fumes.

SECTION 11 Toxicological Information	
	Formulation of low toxicity (acute)
Inhalation:	Thiram: Irritating to respiratory tract, when dry. Thiabendazole: no clinical signs of drug effect in subacute studies. Thiabendazole;Subacute – mouse 3100/3648mg/kg (14day) rabbit >3800 mg/kg (14 day)
Inhalation LC50:	Thiram (a.i.): acute (rat) 4.4 mg/l (4 hour)
Oral LD50:	(rat) >2000 mg/kg body weight
Skin Contact:	Thiram (a.i.): (guinea pig) dermal sensitizing agent. Non-irritating to rabbit skin. Thiabendazole: prolonged skin contact may cause allergy by defatting.
Dermal LD50:	Thiram (a.i.): acute toxicity (rabbit): above 2000 mg.kg Thiabendazole: not established
Eye Contact:	Thiram (a.i.): irritating to eyes Thiabendazole: essentially non irritating
Mutagenicity, carcinogenicity, reproductive toxicity:	Thiram: Did not show effects in animal experiments. Thiabendazole: none demonstrated
T. L. V:	Thiram: Current HSE Occ Limit for dry powder 5 mg/m ³ (8 hr), or 10 mg/m ³ (10 min). Thiabendazole: An ECL of 5mg/m ³ as an 8 hour TWA was established for respirable nuisance dust.

SECTION 12 Ecological Information	
Ecotoxicity:	Very toxic to fish and harmful to other aquatic life. Do not contaminate surface waters or ditches with chemical or used container. Should contamination occur, inform local water PLC immediately. Report any contamination of surface or ground waters to the National Rivers Authority or River Purification Board. All the information below refers to the active ingredient. Thiram (a.i.): Very toxic to aquatic organisms. LC50 : 0.046 to 1.20 mg/l EC ₅₀ /48hr/Daphnia: 0.011mg/l, EC ₅₀ /120hr/algae: 0.24mg/l. IC ₅₀ /3hr/Bacteria: 3.11mg/l. N-octanol/water partition coefficient: log P O/W =1.73
Bioaccumulative potential:	Thiabendazole: Not toxic to bees. HY-TL has minimal potential to bioaccumulate in the aquatic species.

SECTION 13 Disposal Considerations	
Waste Disposal:	Dispose of by incineration in accordance with local regulations or at an authorised waste disposal site (consult Local Authority). For small quantities of product or packaging follow the guidance given in part 5 of the MAFF/HSE Pesticide Code of Practice for the safe use of Pesticides on Farms and Holdings.
Disposal of packaging:	Triple rinse empty containers and dispose of washings through authorised waste disposal contractor. Empty containers should be treated as industrial waste according to local regulations.

SECTION 14 Transport Information	
Hazard Symbols: N, Xn.	
	
Dangerous for the Environment	Harmful
UN Number: 3082	Environmentally Hazardous Substance
Packing Group: III	
Sea	
IMDG Class-primary:	9 Miscellaneous Dangerous Substance
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Thiram 25.64% w/w and Thiabendazole 19.23% w/w)
EMS Number:	None
MFAG Table Number:	None
Road/Rail	Air UN 3082
:	Class 9 Packing Group III Class 9 Packing Group III
	Environmentally Hazardous Substance, liquid, n.o.s. Environmentally Hazardous Substance, liquid, n.o.s. (contains Thiram 25.64% w/w and Thiabendazole 19.23% w/w) (contains Thiram 25.64% w/w and Thiabendazole 19.23% w/w)

SECTION 15 Regulatory Information	
Classified by the current CHIP 4 Regulations:	R20/22:Harmful by inhalation and if swallowed. R36/38: Irritating to eyes and skin.. R43: May cause sensitisation by skin contact. R48: Danger of serious damage to health by prolonged exposure. R50/53: Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. .
MAFF no:	06246
WHO Toxicity Class:	(thiram ai)111 (thiabendazole ai) 111 (table 5)

SECTION 16 Other Information	
Additional Risk/Safety phrases:	Product contains Monoazo dye: Classification 6.3g/l 1975 Colour Index No 18050, Food Red 10. This is essentially non-hazardous. Contains 1,2,benzisothiazoline-3-one sodium salt. May produce an allergic reaction. S2 Keep out of reach of children. S26 In case of contact with eyes , rinse immediately with plenty of water and seek medical advice. S36/37: Wear suitable protective clothing and gloves. S60 This material and its container must be disposed of as hazardous waste. S61: Avoid release into the environment. Refer to special instructions/safety data sheets. This product must only be used for treatment of seeds, it MUST NOT be sprayed onto growing crops.

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. 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.