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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:	Agrichem HY-PRO Duet
Synonyms:	H383, H384, fH386/50, H386, H388, HY-PRO Duet, H470, H471
Intended Use:	Fungicidal seed treatment

SECTION 2 Hazards Identification	
<p>Harmful by inhalation and if swallowed. Irritating to eyes and skin. May cause sensitization by skin contact. Very Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.</p>	

SECTION 3 Composition/Information on Ingredients		
Formulation:	150g/L prochloraz and 333.3g/L thiram plus suspending/wetting agents and water.	
<u>IUPAC Names:</u>	<u>CAS Numbers:</u>	<u>Concentration:</u>
Dichlorobis(N-propyl-N-(2-(2,4,6-trichlorophenoxy)ethyl)-1H-imidazole-1-carboxymide-N ₃).zinc.	137001 -93 -5	180.047g/L, 15.05% w/w
NOT Classified.		
Tetramethyl Thiuram disulphide/Thiram	137 - 26 -8	333.3g/L, 27.9% w/w
[Xn] R20/22; [Xi] R36/8; R43, R48/22, N R50/53.		
Glycol [Xn] R22		
See 15, Regulatory Information & 16 Other Information for text of R phrases		1% - 10% w/w

SECTION 4 First Aid Measures	
Inhalation:	Remove patient to fresh air. Clear mouth, nose and throat, seek medical attention.
Ingestion:	Clear mouth, nose and throat, seek medical attention.
Skin Contact:	Remove contaminated clothing and wash affected areas thoroughly with soap and water. Consult a doctor in the event of any complaints.
Eye Contact:	Irrigate with water for at least 15 minutes. Seek medical advice.
Guide to doctor:	Show this sheet where possible. No specific antidote. Symptoms of poisoning include dermatitis, nausea, vomiting, diarrhoea, hyper excitability, weakness, fatigue, ataxia. Thiram is a dithiocarbamate fungicide, treat symptomatically. Consumption of alcohol increases toxic effect.

SECTION 5	Fire Fighting Measures
Extinguishing media:	Extinguish with water spray, foam, sand or earth.
Protection of firefighters:	Wear self contained breathing apparatus and suitable protective clothing.
Hazardous thermal decomposition products:	(Virtually non flammable as supplied, residue after evaporation of water may support combustion) ZnO _x , NO _x , CO, CO ₂ and oxides of sulphur.

SECTION 6	Accidental Release Measures
Personal precautions:	Use appropriate protection. See section 8. Avoid contact with skin or eyes, do not inhale mists. Avoid ingestion.
Environmental precautions:	Dispose of this material and its container as hazardous or special waste in accordance with national and regional regulations. 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. Contaminated soil layers have to be dug out.
Methods for cleaning up:	Minor spillages: Absorb and contain spillages with sand, earth, etc and collect material for storage in a safe place prior to disposal. Wash the spillage area clean with water and detergent. Major spillages: Collect and contain as much free liquid as possible. Dyke spills using absorbent or impervious material such as sand or clay, for later disposal. Prevent contamination of vegetation.

SECTION 7	Handling and Storage
Handling	Wear suitable protective clothing (coveralls), suitable protective gloves and face protection (faceshield) when handling the concentrate. Ensure there is sufficient ventilation of the area. Avoid contact with skin or eyes. 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 (<50°C) in a well ventilated area and tightly closed, in original containers. Keep separate from animal feeding stuffs and fertilizers, segregate from other agrochemicals in specific agrochemical store. Protect from frost. Maximum shelf life 2 years in unopened container at room temperature.
Packaging:	HDPE drums, 25L free standing jerrican, 210L drum containing 198L and 640L IBC containing 630L.

SECTION 8	Exposure Controls/Personal Protection
Engineering measures:	Facilities storing or using this product should be equipped with eyewash facilities and safety shower.
Hygiene measures:	Wear suitable protective gloves, chemical splash goggles and approved respiratory equipment when handling the concentrate. Wash hands thoroughly after handling and wash concentrate from skin or eyes immediately. When using do not eat, drink or smoke. Wash hands and exposed skin before meals and after work. Wash clothing separately before re-use.
Occupational exposure limits:	None established. Current Health and Safety Executive (HSE) Occupational Exposure Limits for dry powder; 5mg/m ³ (8hr), or 10mg/m ³ (10 min).
Personal protective equipment:	Respiratory system: Wear suitable respiratory equipment to avoid exposure to mist, or dust associated with treated seed. Skin and body: Wear suitable protective clothing and chemical resistant boots. Hands: Wear protective gloves and barrier cream when handling the concentrate and protective gloves when handling treated seed. Eyes: Safety goggles or faceshield when handling the concentrate.

SECTION 9 Physical and Chemical Properties			
Appearance:	Blue semi viscous liquid	Odour:	Slight
Melting Point:	Not applicable	Auto Ignition Temperature:	Not applicable
Boiling Point:		Solubility in Water:	Dispersible
pH:	5.50 - 7.00	Solubility in Organic Solvents:	No data
Flash Point:	No Data	Vapour Pressure:	No data
Explosion Limits:		Viscosity:	700 – 900 cps
	L.E.L. No data		
	U.E.L. No data	Relative Density:	1.18 – 1.20



SECTION 10 Stability and Reactivity	
Stability:	Stable under normal conditions (thiram) Not readily reactive, forms dithiocarbamate ions very slowly in water. Decomposes above melting point (146°C) emitting flammable active ingredient. Combustible after the evaporation of water.
Conditions to avoid:	Protect from (sun) light, open flame and sources of heat. Decomposes on heating. Protect from low temperatures and frost.
Materials to avoid:	Strong acids, strong bases and oxidising agents.
Hazardous reactions:	Hazardous polymerisation will not occur.
Hazardous decomposition products:	ZnO ₁ , NO _x , NO, CO ₂ , Chlorides, oxides of sulphur and sulphur vapour. Burning produces irritant fumes.

SECTION 11 Toxicological Information	
	Moderately toxic, alcohol increases the toxic effect.
Inhalation:	Irritating to respiratory tract when dry.
Inhalation LC ₅₀ :	Not tested Oral LD ₅₀ : >2000 mg/kg body weight
Skin Contact:	Active ingredient (thiram) - (guinea pig) dermal sensitizing agent
Dermal LD ₅₀ :	Active ingredients - acute dermal toxicity LD ₅₀ (rabbit): above 2000 mg/kg
Eye Contact:	Irritating to eyes (rabbit)
Mutagenic Data:	Not mutagenic, carcinogenic, teratogenic in animal experiments.
T. L. V:	Current HSE Occ Exposure Limit for dry powder (thiram) 5 mg/m ³ (8 hour), or 10 mg/m ³ (10 min).
L. CLo:	L. DLo:

SECTION 12 Ecological Information	
	ALL INFORMATION REFERS TO THE ACTIVE INGREDIENTS. Very toxic to fish and 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.
Mobility:	Does not leach to ground water.
Persistence/degradability:	Prochloraz rapidly degrades when exposed to sunlight and UV light.
Ecotoxicity:	Very toxic to aquatic organisms: LC ₅₀ (rainbow trout): 0.26 mg/l (24 hour) Bird LD ₅₀ >2000mg/kg
Bioaccumulationpotential:	This material has a small potential to bioaccumulate in aquatic species.

SECTION 13 Disposal Considerations	
Waste Disposal: (including containers)	Dispose of by incineration or at an authorised waste disposal site (consult Local Authority). For small quantities of product follow the guidance given on the disposal of pesticides and containers as given in part 5 of the MAFF/HSE Pesticides Code of Practice for the Safe Use of Pesticides on Farms and Holdings.

SECTION 14 Transport Information	
UN Number: 3082	Packing Group: III
Sea	Environmentally Hazardous Substance.
IMDG Class-primary:	9 Miscellaneous Dangerous Substance
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. contains 12.6% w/w prochloraz and 27.9% w/w thiram
Road/Rail	
ADR/RID class	9
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. contains 12.6% w/w prochloraz and 27.9% w/w thiram
Air	
IACO/IATA:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. contains 12.6% w/w prochloraz and 27.9% w/w thiram

SECTION 15 Regulatory Information													
MAPP No 14018 blue	<p>Classified by the current UK CHIP4 Regulations</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  HARMFUL </div> <div style="text-align: center;"> <p>Xn HARMFUL BY INHALATION AND IF SWALLOWED</p> <p>IRRITATING TO EYES AND SKIN</p> </div> <div style="text-align: center;">  N DANGEROUS FOR THE ENVIRONMENT </div> </div>												
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SECTION 16 Other Information
<p>R48/22 Harmful, danger of serious damage to health by prolonged exposure if swallowed. Product must only be used as a seed treatment. Do Not spray onto growing crops.</p> <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>