

**SAFETY DATA SHEET****HY-PRO DUET**

Compilation date: 13/03/2015

Revision No: 2

**Section 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product name: HY-PRO Duet

Product code:

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Use of substance / mixture:** Contains: Tetramethylthiuram disulphide and Prochloraz.  
For use in pesticide formulations.

**1.3. Details of the supplier of the safety data sheet****Company name:**

Agrichem (International) Limited,  
Industrial Estate, Station Road, Whittlesey,  
Cambs. PE7 2EY, United Kingdom

Tel: 01733-204019

Fax: 01733-204162

Email: [admin@agrichem.co.uk](mailto:admin@agrichem.co.uk)**1.4. Emergency telephone number**

Emergency tel: 01733-204019

**Section 2: Hazards identification****2.1. Classification of the substance or mixture**

**Classification under CLP:** Acute Tox. 4: H332; Eye Irrit. 2: H319; Aquatic Acute 1: H400; Aquatic Chronic 1: H410;  
Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373

**Most important adverse effects:** Harmful by inhalation and if swallowed. Irritating to eyes and skin. May cause sensitisation by skin contact. Harmful: danger of serious damage to health by prolonged exposure if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**2.2. Label elements****Label elements under CLP:****Hazard statements:**

H332:	Harmful if inhaled.
H315:	Causes skin irritation.
H317:	May cause an allergic skin reaction.
H319:	Causes serious eye irritation.
H373:	May cause damage to organs through prolonged or repeated exposure.
H400:	Very toxic to aquatic life.
H410:	Very toxic to aquatic life with long lasting effects.

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**Signal words:** Warning

**Hazard pictograms:** GHS07: Exclamation mark  
GHS08: Health hazard  
GHS09: Environmental



#### Precautionary statements:

P260: Do not breathe mist/spray.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove Contact lenses, if present and easy to do. Continue rinsing.

P337+313: If eye irritation persists: Get medical advice/attention.

P501: Dispose of contents/container to a licenced waste disposal contractor or collection site except for triple rinsed containers which can be disposed of as non-hazardous waste.

#### 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

### Section 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous ingredients:

TETRAMETHYLTHIURAMDISULPHIDE - REACH registered number(s): 01-21194992301-45

EINECS	CAS	CLP Classification	Percent
205-286-2	137-26-8	Skin Irrit. 2: H315; STOT RE 2: H373; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Skin Sens. 1: H317; Eye Irrit. 2: H319; Acute Tox. 4: H332; Acute Tox. 4: H302; -: EUH401	20-30%

##### PROCHLORAZ

266-994-5	67747-09-5	Acute Tox. 4: H302	10-20%
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##### ETHYLENE GLYCOL

203-473-3	107-21-1	Acute Tox. 4: H302; Aquatic Acute 1; Aquatic Chronic 1: H400	0-5%
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#### Section 4: First aid measures

##### 4.1. Description of first aid measures

<b>Skin contact:</b>	Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Consult a doctor.
<b>Eye contact:</b>	Bathe the eye with running water for 15 minutes. Consult a doctor.
<b>Ingestion:</b>	Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Alcohol intolerance (Antabuse syndrome) may result from adsorption.
<b>Inhalation:</b>	Remove casualty from exposure ensuring one's own safety whilst doing so. In the unlikely event that this substance is inhaled (e.g. aspiration) then treat symptomatically and seek medical advice.

##### 4.2. Most important symptoms and effects, both acute and delayed

<b>Skin contact:</b>	There may be irritation and redness at the site of contact.
<b>Eye contact:</b>	There may be irritation and pain.
<b>Ingestion:</b>	There may be soreness and redness of the mouth and throat.
<b>Inhalation:</b>	There may be a feeling of tightness in the chest with shortness of breath.

**4.3. Indication of any immediate medical attention and special treatment needed:** No data available.

#### Section 5: Fire-fighting measures

##### 5.1. Extinguishing media

**Extinguishing media:** Water. Carbon dioxide. Alcohol or polymer foam.

##### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

##### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

#### Section 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Refer to section 8 of SDS for personal protection details.

##### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

##### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Wash the spillage site with large amounts of water. Wash the ground with an appropriate self-emulsifying solvent.

##### 6.4. Reference to other sections:

No data available

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#### Section 7: Handling and storage

##### 7.1. Precautions for safe handling

**Handling requirements:** Ensure there is sufficient ventilation of the area.

##### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Keep container tightly closed. Store in cool, well ventilated area.

**Suitable packaging:** Aluminium containers. Stainless steel. Polyethylene.

##### 7.3. Specific end use(s):

No data available

#### Section 8: Exposure controls/personal protection

##### 8.1. Control parameters

**Hazardous ingredients:**

##### TETRAMETHYLTHIURAMDISULPHIDE

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	0.05 mg/m <sup>3</sup>	-	-	-

##### ETHYLENE GLYCOL

UK	52 mg/m <sup>3</sup> (vapour)	104 mg/m <sup>3</sup> (vapour)	-	-
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##### DNEL/PNEC Values

##### DNEL / PNEC

No data available.

##### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Respiratory protective device with particle filter.

**Hand protection:** Protective gloves.

**Eye protection:** Safety goggles. Face-shield. Ensure eye bath is to hand.

**Skin protection:** Protective clothing with elasticated cuffs and closed neck.

#### Section 9: Physical and chemical properties

##### 9.1. Information on basic physical and chemical properties

<b>State:</b>	Liquid	<b>Melting point/range °C:</b>	0
<b>Colour:</b>	Blue	<b>Relative density:</b>	1.18 - 1.20
<b>Odour:</b>	Barely perceptible odour	<b>pH:</b>	8.00 – 10.00
<b>Solubility in water:</b>	Miscible	<b>9.2. Other information:</b>	
<b>Viscosity:</b>	Non-viscous		No data available
<b>Boiling point/range°C:</b>	100		

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#### Section 10: Stability and reactivity

##### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

##### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

##### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.

##### 10.4. Conditions to avoid

**Conditions to avoid:** Heat.

##### 10.5. Incompatible materials

**Materials to avoid:** Strong acids. Strong bases. Oxidising agents.

##### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide. In combustion emits toxic fumes of nitrogen oxides.

#### Section 11: Toxicological information

##### 11.1. Information on toxicological effects

**Hazardous ingredients:**

##### PROCHLORAZ

ORL	RAT	LD50	4000	mg/kg
DER	RAB	LD50	2000	mg/kg

##### ETHYLENE GLYCOL

IVN	RAT	LD50	3260	mg/kg
ORL	MUS	LD50	5500	mg/kg
ORL	RAT	LD50	4700	mg/kg

**Relevant effects for mixture:**

Effect	Route	Basis
Acute toxicity (harmful)	INH ING	Hazardous: calculated
Irritation	OPT DRM	Hazardous: calculated
Sensitisation	DRM	Hazardous: calculated
Repeated dose toxicity	ING	Hazardous: calculated

#### Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and pain.

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**Ingestion:** There may be soreness and redness of the mouth and throat.  
**Inhalation:** There may be a feeling of tightness in the chest with shortness of breath.

## Section 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity values:**

No data available.

### 12.2. Persistence and degradability

**Persistence and degradability:**

No data available.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:**

No data available.

### 12.4. Mobility in soil

**Mobility:** Soluble in water.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

**Other adverse effects:**

No data available.

## Section 13: Disposal considerations

### 13.1. Waste treatment method

**Disposal of packaging:** Incinerate residues only in officially approved incinerator. Dispose of empty containers only on dumps designated for special waste or at an incineration plant for industrial waste.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

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**Section 14: Transport information****14.1. UN number**

**UN number:** UN3082

**14.2. UN proper shipping name**

**Shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(TETRAMETHYLTHIURAM DISULPHIDE)

**14.3. Transport hazard class(es)**

**Transport class:** 9

**14.4. Packing group**

**Packing group:** III

**14.5. Environmental hazards**

**Environmentally hazardous:** Yes

**Marine pollutant:** Yes

**14.6. Special precautions for user****Section 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:** No data available

**15.2. Chemical Safety Assessment:** A chemical safety assessment was not carried out for this product.

**Section 16: Other information****Other information**

**Other information:** For use in pesticide formulations.

**Phrases used in s.2 and s.3:**

EUH208: Contains thiram and proxel GLX preservative 1. May produce an allergic skin reaction.

EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

R20/22: Harmful by inhalation and if swallowed.

R22: Harmful if swallowed.

R36/38: Irritating to eyes and skin