

MSDS Number: 201

**Agrichem (International) Limited**

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**Material Safety Data Sheet**

<b>SECTION 1 Identification of Product Name and Company</b>	
<b>Agrichem (International) Limited</b>	Industrial Estate, Station Road, Whittlesey, Peterborough, Cambridgeshire PE7 2EY. Tel: (01733) 204019 Fax: (01733) 204162
Product Name:	<b>Hyban P</b>
Synonyms:	Hygrass P
Intended Use:	Agricultural herbicide for control of broad leaved weeds in cereals

<b>SECTION 2 Composition/Information on Ingredients</b>			
Formulation:	Aqueous solution of sodium and potassium salts.		
<u>IUPAC Names:</u>	<u>CAS-No</u>	<u>EEC-No</u>	<u>Concentration:</u>
<i>R</i> -2(4-chloro-2-methyl phenoxy) propionic acid (mecoprop P), potassium salt. Class: Xn; R22 Xi:R41, R51/53	66423-05-0		150 g/L, 13.8% w/w
<i>S</i> -2(4-chloro-2-methyl phenoxy) propionic acid (mecoprop P), potassium salt.			0.825% w/w
3,6-dichloro-2-methoxybenzoic acid (dicamba). Class: Xn; R22, 41, 52/53.	1918-00-9	217-635-6	18.7 g/L, 1.64% w/w
Ethylenediamine tetraacetic acid. Class:Xi R36 N; R52, R53.	60-00-4	200-449-4	0.207% w/w
See 16 OTHER INFORMATION for text of Risk Phrases.			

<b>SECTION 3 Hazards Identification</b>	
Most important hazards:	Risk of serious damage to eyes.

<b>SECTION 4 First Aid Measures</b>	
General:	If a person feels unwell after coming into contact with this product then seek medical attention immediately. Remove contaminated clothing and wash thoroughly with soap and water. If unconscious, check breathing and pulse (heartbeat). Give artificial ventilation and chest compression if necessary. If unconscious but breathing and pulse are normal. Place in recovery position.
Inhalation:	Remove patient from exposure. Seek medical attention.
Ingestion:	DO not induce vomiting, seek immediate medical attention.
Skin Contact:	Remove contaminated clothing and wash thoroughly with soap and water.
Eye Contact:	Irrigate with clean water for at least 15 minutes.
Guide to Doctor:	Treat as for Phenoxyacetate poisoning. Symptoms include hypersalivation, stomach cramps, vomiting and diarrhoea. No specific antidotes, treat symptomatically.

<b>SECTION 5 Fire Fighting Measures</b>	
Suitable extinguishing media:	Extinguish fire with water, foam or Carbon Dioxide (CO <sub>2</sub> ). Do not use direct water spray.
Special protective equipment for firefighters:	May give off toxic fumes in a fire. Wear breathing apparatus and protective equipment.

<b>SECTION 6 Accidental Release Measures</b>	
Personal protection:	Avoid contact with skin, eyes, or clothing. Do not inhale mists, aerosols or dusts. Avoid ingestion. Wear suitable protective clothing, boots, gloves, eye and face protection.
Environmental precautions:	Do NOT contaminate surface waters or ditches with chemical or used containers. Minimise spray drift onto adjoining fields or water bodies.
Spillage and Decontamination:	Contain and absorb spillage with sand, sawdust or similar material. Dispose of via reputable contractor or local authority. Do not allow spillage to contaminate water courses or drains.  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.

<b>SECTION 7 Handling and Storage</b>	
Handling:	Ensure there is sufficient ventilation of the area. Avoid contact with skin/eyes. Do NOT inhale mists. Avoid ingestion. When using do not eat, drink or smoke. Wash hands and exposed skin before meals and after work.
Storage:	Store and load away from foodstuffs and seeds and protect from children. Keep tightly closed in original container and store in a suitable pesticide store.
Packing:	5L HDPE jerricans , 4 per outer. Freestanding 10L drums.

<b>SECTION 8 Exposure Controls/Personal Protection</b>	
National occupational exposure limits	
<i>R</i> -2(4-chloro-2-methyl phenoxy) propionic acid (mecoprop P), potassium salt.	None assigned in current UK HSE publication EH40. Based on the value for the chemically similar material, technical 2,4D acid the calculated salt equivalent long term limit is 12mg/m <sup>3</sup> (8hr), or 24mg/m <sup>3</sup> (15 min).
<i>S</i> -2(4-chloro-2-methyl phenoxy) propionic acid (mecoprop P), potassium salt.	Note: where the product contains both R and S isomers, the Occupational Exposure Limit quoted is for the S & R isomers combined.
3,6-dichloro-2-methoxybenzoic acid (dicamba).	None assigned in current UK HSE publication EH40.
Ethylenediamine tetraacetic acid.	None assigned in current UK HSE publication EH40.
Engineering Measures to Reduce Exposure.	
Respiratory protection:	In case of insufficient ventilation wear suitable respiratory equipment.
Hand protection:	Wear suitable gloves resistant to chemical penetration. Gloves must meet the requirements of European Standard EN 374:1994
Eye protection:	Wear suitable eye/face protection.
Hygiene measures:	When using do not eat, drink or smoke. Shower or bathe at the end of working.

<b>SECTION 9 Physical and Chemical Properties</b>			
Appearance:	Dark brown liquid		
Odour:	Distinctive phenoxy smell		
Melting Point:	Not applicable, aqueous solution.	Auto Ignition Temperature:	No data.
Boiling Point:	> 100°C	Solubility in Water:	Fully miscible in water.
pH:	9.5 - 11.5	Solubility in Organic Solvents:	No data.
Flash Point:	not applicable	Partition coefficients:	No data.
Explosive properties:	No data.	Viscosity:	No data.
Bulk density:	Not applicable, aqueous solution.	Vapour Pressure:	No data.
Relative Density:	1.084 g/l		


<b>SECTION 10 Stability and Reactivity</b>	
Stability:	Stable under recommended storage conditions.
Conditions to avoid:	Exothermic reactions with strong acids.
Materials to avoid:	Strong acids and oxidizing agents.
Hazardous decomposition products:	Carbon monoxide, carbon dioxide (CO <sub>2</sub> ).

<b>SECTION 11 Toxicological Information</b>	
Inhalation:	mecoprop-p (a.i.) irritant to mucous membranes and lungs
Inhalation LC <sub>50</sub> :	dicamba (a.i.): (rat) > 9.6 mg/L (4 hour). mecoprop-p (a.i.): (LC <sub>50</sub> rat) > 5.6 mg/L (4 hour)
Oral LD <sub>50</sub> :	(rat) 3000 mg/kg (calculated)
Skin Contact:	mecoprop-p (a.i.): harmful in contact with skin.
Dermal LD <sub>50</sub> :	Mecoprop-p (a.i.): (rat) 1460mg/kg body weight. Dicamba (a.i.): >2000 mg/kg body weight.
Eye Contact:	Risk of serious damage to eyes.
Mutagenic Data:	Not mutagenic in Ames test.
Further Information:	Not a skin sensitizer.

<b>SECTION 12 Ecological Information</b>	
Mobility:	Fairly mobile but rapidly degraded in aerobic soils
Persistence /degradability:	Rapidly degraded in aerobic soils, (half-life approximately 8 days.)
Bioaccumulation:	Potential for bioaccumulation is low based on log POW. dicamba (a.i.): (rainbow trout) LC <sub>50</sub> 135 mg/L 96 hours.
Ecotoxicity:	For mecoprop - p (a.i.): (rainbow trout) LC <sub>50</sub> > 150 mg/L (96 hours) For dicamba (a.i.): (rainbow trout) LC <sub>50</sub> > 135.4 mg/L (96hr) Bluegill LC <sub>50</sub> 135.3 mg/L.

<b>SECTION 13 Disposal Considerations</b>	
Product Disposal & Container Disposal:	Do not contaminate ponds, waterways and ditches with chemical or used container. 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 use of Pesticides on Farms and Holdings.

<b>SECTION 14 Transport Information</b>	
Not classified as dangerous in the meaning of transport regulations.	

<b>SECTION 15 Regulatory Information</b>	
MAFF No:	09129. This product is approved under the Control of Pesticides Regulations 1986.
<b>Classification according to the current UK Chemical (Hazard Information and Packaging for Supply) Regulations.</b>	
Contains:	17%w/w dichloro-2-methoxy-benzoic acid and 13.8%w/w (R)-2-(4-chloro-2-methylphenoxy)propionic acid as the potassium salts and 0.8%w/w(S)-2-(4-chloro-2-methylphenoxy)propionic acid , potassium salt and 0.37%w/w ethylamine tetraacetic acid as impurities.
	
	<b>IRRITANT</b>
Risk Phrases:	R41 RISK OF SERIOUS DAMAGE TO EYES. R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Safety Phrases:	S2 Keep out of the reach of children S26 In case of contact with eyes, rinse immediately with plenty of water and seek immediate medical advice. S39 Wear suitable eye/face protection. S46 If swallowed, seek medical advice immediately and show this container or label. S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

<b>SECTION 16 Other Information</b>	
Xn, R22	Harmful if swallowed.
N	Dangerous for the Environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.