

MSDS Number: 215

<b>Agrichem (International) Limited</b>
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<b>Material Safety Data Sheet</b>
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<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 e-mail contact: <a href="mailto:admin@agrichem.co.uk">admin@agrichem.co.uk</a>
Product Name:	<b>HY-D Super</b>
Synonyms:	2,4-D, Herboxone.
Intended Use:	Selective herbicide for use in grasslands and cereals.

<b>SECTION 2 Hazards Identification</b>	
Most important hazards	HY-D Super is of moderate toxicity in normal handling and use. Harmful if swallowed and in contact with skin and may cause sensitization by skin contact. Risk of serious damage to eyes. It may be irritating to skin, and eyes. HY-D Super is Harmful to fish and other aquatic life and Dangerous to higher aquatic plants.

<b>SECTION 3 Composition/Information on Ingredients</b>		
Formulation:	Aqueous solution of Dimethylamine salt of 2-(2-4-Dichlorophenoxy) acetic acid.	
<u>IUPAC Names:</u>	<u>CAS Numbers:</u>	<u>Concentration:</u>
(2-4-Dichlorophenoxy) acetic acid, dimethylamine salt [Xi] R41, R43, [Xn] R22, R51-53. See 15, regulatory information for text of R phrases.	2008-39-1	500 g/L, 42.7% w/w

<b>SECTION 4 First Aid Measures</b>	
<u>First Aid</u>	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. If there is breathing difficulty or cough keep patient at rest, seated in position of maximum comfort.
Ingestion:	If suspected do not induce vomiting, send immediately to hospital. If conscious, drink plenty of water.
Skin Contact:	Remove contaminated clothing, wash immediately with soap and gently running water for 10 minutes, seek medical attention. Repeat skin decontamination procedures until all signs of chemical have gone.
Eye Contact:	Irrigate with clean water for at least 15 minutes. Protect unharmed eye.
Guide to Doctor:	Symptoms include hypersalivation, stomach cramps, vomiting and diarrhoea. Other reported symptoms include convulsions, cerebral depression, mental confusion and speech difficulty. Ventricular fibrillation has been reported.

<b>SECTION 5 Fire Fighting Measures</b>	
	<p>Fumes may be toxic - wear breathing apparatus.            Extinguish with waterspray, dry chemical, foam or Carbon dioxide.            Product may be harmful to wildlife - DO NOT release chemically contaminated water into drains, soil or surface water - prevent run off. Retain for safe disposal.</p>

<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:	<p>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.</p> <p>NB. Inform local Water PLC immediately if spillage enters drains, and report any contamination of surface water of ground waters to the National Rivers Authority or River Purification Board.</p>

<b>SECTION 7 Handling and Storage</b>	
Handling:	<p>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.</p>
Storage:	<p>Store and load away from foodstuffs and seeds.            Keep tightly closed in original container and store in a suitable pesticide store.</p>
Packing:	5 litre plastic cans. 4 x 5L per outer. Gross weight pack 23kg and freestanding 10L jerrican.

<b>SECTION 8 Exposure Controls/Personal Protection</b>	
National occupational exposure limits	None assigned in current UK HSE publication EH40. Based on the value for the 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).
Engineering controls:	<p>Ensure there is sufficient ventilation of the area.            Wear suitable protective clothing (coveralls), suitable protective gloves, rubber boots and face protection (faceshield) when handling contaminated surfaces.</p>
Respiratory protection:	Wear suitable respiratory protective equipment (faceshield) to avoid exposure to concentrate or mist.
Hand protection:	<p>Wear suitable protective gloves (EN 374:1994) when handling the concentrate.            Wash concentrate from skin immediately.</p>
Eye protection:	Wear suitable eye/face protection.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice. Shower or bathe at the end of working.



<b>SECTION 9 Physical and Chemical Properties</b>			
Appearance:	Light brown liquid		
Odour:	Distinctive phenoxy odour		
Melting Point:	not applicable	Oxidising properties:	None known
Boiling Point:	>100°C	Solubility in Water:	Fully miscible in water
pH:	7.5-9.5	Solubility in Organic Solvents:	No data
Flash Point:	not applicable	Par. Coeff. N-octanol/water.	No data
Flammability:	No data	Vapour Density:	No data
Explosive properties:	stable product	Vapour Pressure	No data
Density:	1.0 g/ml at 20 °C		

<b>SECTION 10 Stability and Reactivity</b>	
Conditions to avoid:	
Materials to avoid:	Strong bases, strong acids and oxidising agents.
Hazardous combustion or decomposition products:	Carbon monoxide, carbon dioxide, nitrogen oxides(NO <sub>x</sub> ), hydrogen chloride gas.

<b>SECTION 11 Toxicological Information</b>	
<b>ACUTE TOXICITY</b>	
Inhalation:	Classified by Chemicals (Hazard Information and Packaging for Supply) Regulations as Harmful by Inhalation
Inhalation LC <sub>50</sub> :	4hour rat >5.01mg/l.
Ingestion:	Harmful if Swallowed. LD <sub>50</sub> /oral/rat = 1297mg/kg (males and females).
Skin Contact:	Classified by Chemicals (Hazard Information and Packaging for Supply) Regulations as Harmful in Contact with Skin.
Dermal LD <sub>50</sub> :	Dermal rat = >4000 mg/kg
Eye Contact:	Risk of Serious Damage to Eyes.
Further information:	Not carcinogenic, mutagenic or teratogenic.

<b>SECTION 12 Ecological Information</b>	
Mobility:	HY-D Super is classified as Harmful to fish or other aquatic life and Dangerous to higher aquatic plants. Fairly mobile, but rapidly degraded in aerobic soils.
Persistence and degradability:	Rapidly degraded in aerobic soils (aerobic half life 2,4-D = 3-10 days).
Bioaccumulative potential:	Potential for bioaccumulation is low based on log Pow. (log Pow 2,4-D = 0.91 at pH7). LC <sub>50</sub> 96hr Rainbow Trout = >200mg 2,4-D DMA/l & 72hr algae = 178mg 2,4-D DMA/l. EC <sub>50</sub> 48hr Daphnia = > 200mg 2,4-D DMA/l.

<b>SECTION 13 Disposal Considerations</b>	
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 use of Pesticides on Farms and Holdings.

<b>SECTION 14 Transport Information</b>		
		
<b>Hazard Symbol :</b> Xn N	<b>Dangerous for the Environment</b>	<b>HARMFUL</b>
<b>UN Number:</b> 3082 Environmentally Hazardous Substance		<b>Packing Group:</b> III
<b>Sea</b>		
IMDG Class-primary:	9 Environmentally Hazardous Substance	
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 2,4-D 47%)	
EMS Number:	none	
MFAG Table Number:	none	
<b>Road/Rail</b>	Class 9 HI No 90.	<b>Air IATA:</b> Class 9.
ADR/RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Packing Group III	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Packing Group III

<b>SECTION 15 Regulatory Information</b>		
Classified according to the 2009 UK Chemicals (Hazard Information and Packaging Regulations) CHIP 4 Regulations.		
<b>Xn Harmful. Xi Irritant. N Dangerous for the Environment (see symbols above)</b>		
Risk Phrases:	R22	Harmful if swallowed.
	R41	Risk of Serious damage to eyes
	R43	May cause sensitization by skin contact.
	R51/53	Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment
Safety Phrases:	S24/25	Avoid contact with skin or eyes.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek immediate medical advice.
	S35	This material and its container must be disposed of in a safe way.
	S39	Wear eye/face protection.
	S46	If swallowed, seek medical advice immediately and show this container or label.
	S57	Use appropriate containment to avoid environmental contamination.
	S61	Avoid release into the environment. Refer to special instructions/safety data sheet.
MAPP No	13198	

<b>SECTION 16 Other Information</b>	
None	
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.	

