

MSDS Number: 230

Agrichem (International) Limited

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Material Safety Data Sheet

SECTION 1 Identification of Product Name and Company	
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Product Name:	Agrichem DB Plus
Synonyms:	
Intended Use:	Herbicide for control of broad leaved weeds in cereals and rotational grassland.

SECTION 2 Hazards Identification	
Most important hazards:	Harmful if swallowed.
Specific hazards:	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 3 Composition/Information on Ingredients			
Formulation:	Aqueous solution of sodium salts.		
<u>IUPAC Names:</u>	<u>CAS-No</u>	<u>EEC-No</u>	<u>Concentration:</u>
4-(2-4 dichlorophenoxy) butyric acid (2,4-DB). Sodium salt. Class: Xn; R22, N; 51./53.	94-82-6	202-366-9	243g/L, 21.1% w/w.
2-(4 chloromethyl phenoxy)acetic acid (MCPA). Potassium salt Class: Xn; R20/21/22	5221-16-9	202-015-4	40g/L, 3.5% w/w.

SECTION 4 First Aid Measures	
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 running water for at least 10 minutes. Then send immediately to doctor.
Eye Contact:	Irrigate with clean water for at least 15 minutes. Protect unharmed eye.
Guide to Doctor:	Treat as for Phenoxyacetate poisoning. Symptoms include hypersalivation, stomach cramps, vomiting and diarrhoea. No specific antidotes, treat symptomatically.

SECTION 5 Fire Fighting Measures	
Suitable extinguishing media:	Extinguish fire with water, foam or Carbon Dioxide (CO ₂). 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.

SECTION 6 Accidental Release Measures	
Personal protection:	Avoid contact with skin, eyes, or clothing. Do not inhale mists, aerosols or dusts. Avoid ingestion. Wear suitable protective clothing, boots, gloves and eye/face protection. Never wear contact lenses whilst working with this material.
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.

SECTION 7 Handling and Storage	
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:	4 x 5L HDPE jerricans, 4 per outer. Freestanding 10L drums.

SECTION 8 Exposure Controls/Personal Protection	
National occupational exposure limits	
4-(2,4-dichlorophenoxy) butyric acid (2,4-DB).	Non 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 ³ (8hr), or 23mg/m ³ (15 min).
4-chloro-2 methylphenoxy acetic acid (MCPA).	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 ³ (8hr), or 24mg/m ³ (15 min).
Engineering Measures to Reduce Exposure.	
Respiratory protection: Hand protection: Eye protection: Hygiene measures:	In case of insufficient ventilation wear suitable respiratory equipment. Wear suitable gloves resistant to chemical penetration. Gloves must meet the requirements of European Standard EN 374:1994 Wear suitable eye/face protection. When using do not eat, drink or smoke. Shower or bathe at the end of working.

SECTION 9 Physical and Chemical Properties			
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:	No data	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:	1.11 g/l at 20°C		

SECTION 10 Stability and Reactivity	
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 ₂), Hydrogen chloride gas.

SECTION 11 Toxicological Information	
Inhalation:	2,4-DB not classified by Chemicals (Hazard Information and Packaging for Supply) Regulations as Harmful by Irritation.
Inhalation LC ₅₀ :	2,4-DB (a.i.): (rat) > 2.3 mg/L (4 hour) MCPA (a.i.): (rat) > 5.21 mg/L (4 hour)
Oral LD ₅₀ :	(rat) 3000 mg/kg (calculated)
Skin Contact:	2,4-DB not classified by Chemicals (Hazard Information and Packaging for Supply) Regulations as harmful in contact with skin. MCPA (a.i.): harmful in contact with skin.
Dermal LD ₅₀ :	>2000 mg/kg body weight.
Eye Contact:	May cause eye irritation. Always wear suitable eye protection.
Further information:	Not a skin sensitizer. Not mutagenic in Ames test.

SECTION 12 Ecological Information	
Mobility:	Fairly mobile but rapidly degraded in aerobic soils
Persistence /degradability:	Rapidly degraded in aerobic soils.
Bioaccumulation	Potential for bioaccumulation is low based on log POW.
Ecotoxicity:	Moderate.

SECTION 13 Disposal Considerations

Product	Do not contaminate ponds, waterways and ditches with chemical or used container.
Disposal & Container	By incineration in accordance with the current UK legislation.
Disposal:	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.

SECTION 14 Transport Information

Not classified as dangerous in the meaning of transport regulations.

SECTION 15 Regulatory Information

MAFF No: 00044. This product is approved under the Control of Pesticides Regulations 1986.

Classification according to the current UK Chemical (Hazard Information and Packaging for Supply) Regulations.

Contains: 2-(4-chloro-2-methylphenoxy)acetic acid (3.5% w/w) and 4-(2,2-dichlorophenoxy)butyric acid (21.1% w/w).

**Xn Harmful**

Risk Phrases	R22 HARMFUL IF SWALLOWED R41 RISK OF SERIOUS DAMAGE TO EYES
Safety Phrases:	R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment S2 Keep out of reach of children S26 In case of contact with eyes, rinse immediately with plenty of water and seek immediate medical advice. S29 Do not empty into drains S36/37/39 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.

SECTION 16 Other Information

R20/21/22	HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED
N R51/53	Dangerous to the Environment. 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.