

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: HY-D-Super
Synonyms: 2,4-D, Herboxone
Formula: Aqueous solution of Dimethylamine salt of 2-(2-4-Dichlorophenoxy) acetic acid.
Approved Use: Herbicide
Supplier: Barclay Chemicals Manufacturing Ltd.,
 Damastown Way
 Damastown Industrial Park
 Mulhuddart
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 Ireland.
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Issued By: Barclay Chemicals Ltd.

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2. COMPOSITION/INFORMATION ON INGREDIENTS

No.	Name
1.	Aqueous solution of Dimethylamine salt of 2-(2-4-Dichlorophenoxy) acetic acid.

No.	CAS No.	EC No.	R Phrases	Concentration	Classification
1.	2008-39-1	----	R22,R41,R43R51/53	500 g/l	Xi, Xn

Legend: Tx = Very Toxic, C = Corrosive, Xn = Harmful, Xi = Irritant, Ik = No Classification Required, E = Explosive, O = Oxidising, Fx = Extremely Flammable, F = Very Flammable, Fo = Flammable, N = Dang. To the Environment, M = Genotoxic, A = Sensitizing, K = Carcinogenic, R = Causes birth defects, H = skin absorption

3. HAZARDS IDENTIFICATION

Human: 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, eyes or respiratory system.



Environmental: HY-D Super is Harmful to fish and other aquatic life and Dangerous to higher aquatic plants.

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. If there is breathing difficulty or cough keep patient at rest, seated in position of maximum comfort.

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.

Ingestion:

If suspected do not induce vomiting, send immediately to hospital. If conscious, drink plenty of water.

Medical Information:

Note 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.

5. FIRE-FIGHTING MEASURES

Measures:

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.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

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.

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. Keep tightly closed in original container and store in a suitable pesticide store.
Packing:	5 litre plastic cans. 4* 5l per outer. Gross weight pack 23kg

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Occupational Exposure Standard:	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 ³ (8hr), or 24mg/m ³ (15 min).
Engineering Controls	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.
Respiratory Protection	Wear suitable respiratory protective equipment (faceshield) to avoid exposure to concentrate or mist.
Hand Protection	Wear suitable protective gloves (EN 374:1994) when handling the concentrate. Wash concentrate from skin immediately.
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.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Light brown liquid
Odour:	Distinctive phenoxy odour
Melting Point	N/A
Boiling Point	>100 °C
pH	7.5-9.5
Flammability	No data
Explosive Properties	Stable product
Density	1.0 g/ml at 20 °C

Solubility in water Fully miscible in water

10. STABILITY AND REACTIVITY

Materials to Avoid: Strong bases, strong acids and oxidising agents
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, nitrogen oxides(NO_x), Hydrogen chloride gas.

11. TOXICOLOGICAL INFORMATION

Ingestion: Harmful if swallowed. LD50/oral/rat = 1297 mg/kg (males and females)
Skin Contact Classified by Chemicals (Hazard Information and Packaging for Supply)
Regulations as Harmful in Contact with Skin.
Dermal LD50 Dermal rat = >4000 mg/kg
Eye Contact Risk of Serious Damage to eyes
Inhalation: Classified by Chemicals (Hazard Information and Packaging for Supply)
Regulations as Harmful by Inhalation
Inhalation LC 50: 4hour rat >5.01mg/l.
Carcinogenic Not Carcinogenic
Mutagenic Not Mutagenic

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: HY-D Super is classified as Harmful to fish or other aquatic life and Dangerous to higher aquatic plants.
Persistence and Degradability: Fairly mobile, but rapidly degraded in aerobic soils. 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).
LC₅₀ 96hr Rainbow Trout = >200mg 2,4-D DMA/l & 72hr algae = 178mg 2,4-D DMA/l.

13. DISPOSAL CONSIDERATIONS

Product and Waste: (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.



Revision 1 Date Prepared: 11/12/06 Emergency phone number updated

DISCLAIMER

The information in the MSDS relates to this specific material. If the product is used as a component in any other product, this MSDS may not be valid. The information contained was obtained from sources which we believe are reliable. The information is provided without any warranty, expressed or implied, regarding its correctness.

This Material Safety Data Sheet was prepared according to Directive 2001/58/EC.