

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

Product Name: DB Plus
Product Number(s): P4417 (5L), G4419 (20L)

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

Controls broad leaved weeds in re-seeded grass

1.3 Details of the supplier of the safety data sheet

Hygeia Chemicals Limited, Carrowmoneash, Oranmore, Co. Galway
Tel: 091-794722 Fax: 091-794738 email: services@hygeia.ie

1.4 Emergency telephone number

National Poisons Information Centre (Tel: 01-8379964) (Fax: 01-8368476)

Section 2: Hazards Identification**2.1 Classification according to Regulation (EC) 1272/2008 [EU-GHS/CLP]**

Eye Dam. 1: H318; Aquatic Chronic 3: H412

2.2 Label Elements

Labelling according to Regulation (EC) No 1272/2008 (CLP):



Hazard pictogram: GHS05: Corrosive

Signal words: Danger

Hazard statements: H318: Causes serious eye damage
H412: Harmful to aquatic life with long lasting effects

Precautionary statements: P280: Wear protective gloves/protective clothing/eye protection/face protection
P501: Dispose of contents/container to an approved waste disposal plant
P310: Immediately call a POISON CENTRE or doctor/physician
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P101: If medical advice is needed, have product container or label at hand
P102: Keep out of reach of children
P103: Read label before use

2.3 Other hazards

This product is not identified as a PBT/vPvB substance

Section 3: Composition/information on ingredients

3.1 Substances
Not available

3.2 Mixtures

Name	No.	Classification	% Wt.
4-(2,4-dichlorophenoxy) Butyric acid, sodium salt (2,4DB)	CAS No: 10433-59-7 EINECS: 233-917-1	Acute Tox. 4: H302; Aquatic Chronic 2: H411; Eye Dam. 1: H318	20-30%
4-chloro-2-methylphenoxy acetic acid, potassium salt (MCPA-K)	CAS No: 5221-16-9 EINECS: 226-015-4	Acute Tox. 4: H302; Aquatic Chronic 1: H410; Aquatic Acute 1: H400; Acute Tox. 4: H312, H332	0-5%
Sodium Hydroxide	CAS No: 1310-73-2 EINECS: 215-185-5	Skin Corr. 1A: H314	0-1%

Section 4: First Aid Measures

4.1 Description of First Aid Measures

Eye Contact: If substance has got into the eyes, immediately wash out with plenty of water for at least 10 minutes maintaining eyelids open. Protect unharmed eye. Take care not to wash the chemical from one eye into the other. Obtain medical attention immediately (show this Safety Data Sheet)

Skin Contact: Remove contaminated clothing immediately. If skin contamination occurs wash immediately with plenty of clean, gently flowing water for at least 10 minutes. Repeat skin decontamination process until all signs of chemicals have gone. Obtain medical attention immediately (show this Safety Data Sheet)

Ingestion: If ingestion is suspected, do not induce vomiting. If conscious, drink plenty of water. Obtain medical attention immediately (show this Safety Data Sheet)

Inhalation: Move to fresh air. If there is breathing difficulty or coughing, keep patient at rest seated in position of maximum comfort. Obtain medical attention immediately (show this Safety Data Sheet)

4.2 Most important symptoms and effects, both acute and delayed

Not available

4.3 Indication of any immediate medical attention and special treatment needed

Immediately wash eyes with water

Section 5: Firefighting Measures

5.1 Extinguishing media

Extinguish with carbon dioxide, dry chemical, foam or water spray

5.2 Special hazards arising from the substance or mixture

May give off toxic fumes in a fire

5.3 Advice for firefighters

Chemical protection suit to prevent contact with skin and eyes, suitable gloves for fire-fighters, boots and self-contained breathing apparatus

Section 6: Accidental Release Measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
Wear appropriate protective clothing (see section 8)
- 6.2 Environmental precautions**
Do not allow product to enter drains or water courses
- 6.3 Methods and material for containment and cleaning up**
Soak up with inert absorbent material, place in suitable labelled containers and dispose as hazardous waste. Where appropriate, refer to Sections 8 & 13
- 6.4 Reference to other sections**
Not Available

Section 7: Handling and Storage

- 7.1 Precautions for safe handling**
When using, do not eat, drink or smoke. Avoid direct contact with the substance
- 7.2 Conditions for safe storage, including any incompatibilities**
Keep containers tightly closed in a dry, cool and well-ventilated place to which children do not have access. Keep away from food, drink and animal feedstuff
- 7.3 Specific end use(s)**
Not Available

Section 8: Exposure Controls/Personal Protection

- 8.1 Control Parameters**
Occupational Exposure Standards:
Workplace Exposure Limits: No data available for 2,4DB Na
MCPA: 8h. TWA 10 mg/m³
15 min. STEL 20 mg/m³
Sodium Hydroxide: 15 min STEL 2mg/m³
DNEL/PNEC: No data available
- 8.2 Exposure Controls**
Engineering Control Measures: The usual precautionary measures for handling chemicals should be observed
Hygiene Measures: When using do not eat, drink or smoke. Shower or bathe at the end of working
Respiratory Protection: Wear suitable respiratory equipment
Skin and Body: Wear suitable protective clothing
Hands: Wear chemical resistant gloves
Eyes: Wear suitable eye/face protection

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Dark brown liquid
Odour:	Phenolic
pH:	9 – 11.5 (typical)
Specific Gravity:	1.150 g/ml (typical)
Boiling Point:	>100°C
Melting Point/Range:	Not applicable, aqueous solution

Decomposition Temp.:	No data available
Flash Point:	No data available
Auto Ignition Temp.:	No data available
Flammability:	Not flammable
Explosive Properties:	No data available
Oxidising Properties:	Non-oxidising (by EC Criteria)
Vapour Pressure:	No data available
Bulk Density:	Not applicable
Solubility (Water):	Soluble
Solubility (Fat Solvent):	No data available
Partition Coefficient:	n-octanol/water: 1.35 (DB), -0.81 (MCPA)
Viscosity:	No data available

9.2 Other information

Not Available

Section 10: Stability and Reactivity

10.1 Reactivity

Stable under recommended transport or storage conditions

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below

10.4 Conditions to avoid

Avoid direct heat protect from frost

10.5 Incompatible materials

Avoid strong acids, strong bases and oxidising agents

10.6 Hazardous decomposition products

May generate toxic fumes of carbon dioxide and carbon monoxide

Section 11: Toxicological Information

11.1 Information on toxicological effects

2,4DB Na 400g/l

Acute Toxicity:

Ingestion: LD₅₀/Oral/Rat = >667 mg/kg

Skin Contact: LD₅₀/Dermal/Rat = >2000 mg/kg

Eye Contact: Severe Irritant (Rabbit eye)

Inhalation: LC₅₀/Inhalation (dust/mist) = >2.3 mg/kg

Carcinogenicity: Based on available data the classification criteria are not met

Mutagenicity: Based on available data the classification criteria are not met

Toxicity for Reproduction: Based on available data the classification criteria are not met

Symptoms/Routes of Exposure:

Skin Contact: No symptoms

Eye Contact: There may be irritation and redness. The eyes may water profusely

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting

Inhalation: No symptoms

Delayed/Immediate Effects: Immediate effects can be expected after short-term exposure

MCPA-K 400g/l

Toxicity Values:

Route	Species	Test	Value	Units
Respiratory or Skin	GPG	Buehler	Not a skin sensitiser	-
Serious Eye Damage	RBT	EPA OPPTS 8702400	Irritant	-
Skin Corrosion/Irrit	RBT	EPA OPPTS 8702500	Non-Irritant	-
Dust/Mist	RAT	4H LC ₅₀	>5.21	mg/l
ORL	RAT	LD ₅₀	1662	mg/kg
SKN	RBT	LD ₅₀	>2000	mg/kg

Excluded Effects for Mixture:

Effect	Route	Basis
Repeated dose toxicity	-	Classified as non-hazardous because of lack of data
Carcinogenicity	-	Classified as non-hazardous because of lack of data
Mutagenicity	-	Classified as non-hazardous because of lack of data
Toxicity for Reproduction	-	Classified as non-hazardous because of lack of data

Symptoms/Routes of Exposure:

Skin Contact:	There may be irritation and redness at the site of contact
Eye Contact:	There may be irritation and redness. The eyes may water profusely
Ingestion:	There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting
Inhalation:	There may be irritation to the throat with a feeling of tightness in the chest
Delayed/Immediate Effects:	Immediate effects can be expected after short-term exposure

Section 12: Ecological Information

12.1 Toxicity

2,4DB Na 400g/l

Toxicity to Fish: LC₅₀/96hr/Rainbow Trout = 17.8 mg/l

Toxicity to Algae: IC₅₀/72hr/Algae = 23.2 mg/l

MCPA K 400g/l

Toxicity to Fish: LC₅₀/96hr/Rainbow Trout = 99.3 mg/l

Toxicity to Aquatic Invertebrates: EC₅₀/48hr/Daphnia Magna = 424.0 mg/l

Toxicity to Aquatic Plants: ErC₅₀/72hr/Lemna Gibba G3 = 1.52 mg/l
ErC₅₀/72hr/Navicula pelliculsa = 60.7 mg/l

12.2 Persistence & Degradability

Readily biodegradable

12.3 Bioaccumulative Potential

Potential for bioaccumulation is low based on log Pow

12.4 Mobility

Readily absorbed into soil (MCPA)

Limited Mobility in soil (2,4DB)

12.5 Results of PBT and vPvB assessment
This product is not identified as a PBT substance

12.6 Other Adverse Effects
No further relevant information available

Section 13: Disposal Considerations

13.1 Waste treatment methods
Product Disposal: Dispose of according to local and national regulations
Container Disposal: Triple rinse containers with water and dispose of according to local and national regulations

Section 14: Transport Information

Not classified as hazardous for road transport under ADR

14.1 UN number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
14.6 Special precautions for user
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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
No data available

Section 16: Other Information

Text of Phrases mentioned in Sections 2 and 3:

H-Statements

H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H319 Causes serious eye irritation
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects
H411 Toxic to aquatic life with long lasting effects
H412 Harmful to aquatic life with long lasting effects

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, release and is not to be considered a warranty of quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text