

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

Product Name: Underclear
Product Number(s): G4030 (10L)

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

Controls weeds in re-seeds/undersown

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: 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
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a POISON CENTRE or doctor/physician
P501: Dispose of contents/container to a licensed waste disposal contractor or collection site except for triple rinsed containers which can be disposed of as non-hazardous waste

2.3 Other hazards

Not available

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%
(R)-2-(4-chloro-2-methyl phenoxy) propionic acid, potassium salt (CMPP-PK)	CAS No: 66423-05-0 EINECS: 240-539-0	Acute Tox. 4: H302; Aquatic Chronic 2: H411; Eye Dam. 1: H318	0-5%
EDTA	CAS No: 60-00-4	Acute Tox. 4: H332; Eye Irrit. 2: H319	<1%

Section 4: First Aid Measures

4.1 Description of First Aid Measures

- Skin Contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor
- Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor
- Ingestion:** Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Consult a doctor
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor

4.2 Most important symptoms and effects, both acute and delayed

- 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 known
- Delayed/ immediate effects:** Immediate effects can be expected after short-term exposure

4.3 Indication of any immediate medical attention and special treatment needed

Eye bathing equipment should be available on the premises

Section 5: Firefighting Measures

5.1 Extinguishing media

Extinguish with carbon dioxide, dry chemical, foam or waterspray. Use waterspray to cool containers

5.2 Special hazards arising from the substance or mixture

In combustion emits toxic fumes

5.3 Advice for firefighters

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes

Section 6: Accidental Release Measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
Refer to Section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent escape of liquid
- 6.2 Environmental precautions**
Do not discharge into drains or rivers. Contain the spillage using bunding
- 6.3 Methods and material for containment and cleaning up**
Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method
- 6.4 Reference to other sections**
Refer to Section 8 of SDS

Section 7: Handling and Storage

- 7.1 Precautions for safe handling**
Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Do not eat, drink or smoke when using this product
- 7.2 Conditions for safe storage, including any incompatibilities**
Store in a cool, well ventilated area to which children have no access. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids
- 7.3 Specific end use(s)**
Not Available

Section 8: Exposure Controls/Personal Protection

8.1 Control Parameters

2,4 DB Na 400 g/l

No data available

CMPP-PK 600g/l

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	10mg/m ³	20 mg/m ³	-	-

DNEL/PNEC Values: No data available

8.2 Exposure Controls

Engineering Control Measures:

Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids

Hygiene Measures:

When using do not eat, drink or smoke. Shower or bathe at the end of working

Respiratory Protection:

Self-contained breathing apparatus must be available in case of emergency

Hand Protection:

Impermeable gloves

Eyes Protection:

Safety glasses. Ensure eye bath is to hand

Skin Protection:

Impermeable protective clothing

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Very dark, reddish-brown liquid
Odour:	Slight Phenolic
pH:	9 – 11 (typical)
Specific Gravity:	1.150 g/ml @ 20°C (typical)
Boiling Point:	No data available
Melting Point/Range:	Not applicable, aqueous solution
Decomposition Temp.:	No data available
Flash Point:	Not flammable
Auto Ignition Temp.:	Not flammable
Flammability:	Not flammable
Explosive Properties:	No explosive properties
Oxidising Properties:	Non-oxidising (by EC Criteria)
Vapour Pressure:	2,4DB: No data available CMPP-P: No data available
Bulk Density:	Not applicable, aqueous solution
Solubility (Water):	Soluble in water
Solubility (Fat Solvent):	No data available
Partition Coefficient:	n-octanol/water: 2,4DB: 1.35 (DB) CMPP-P: -0.391 (MCPP-P Acid)
Viscosity:	2,4DB: 16.9 mPas CMPP-P: 48.3 mPas

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 normal 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

Frost, heat and exothermic reactions with strong acids

10.5 Incompatible materials

Oxidising agents, strong acids and strong bases

10.6 Hazardous decomposition products

In combustion emits toxic fumes

Section 11: Toxicological Information

11.1 Information on toxicological effects

2,4DB Na 400g/l

Acute Toxicity:

Ingestion:	LD ₅₀ /Oral/Rat = 667 - 2000 mg/kg
Inhalation:	4hr LC ₅₀ /Inhalation (Dust/Mist)/Rat = >2.3 mg/kg
Skin Contact:	LD ₅₀ /Dermal/Rat = >2000 mg/kg
Eye Contact:	Severe Irritant (Rabbit eye)
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

CMPP-PK 600g/l

Toxicity Values:

Route	Species	Test	Value	Units
Eye damage	Rabbit	-	Severe	-
IHL	Rat	LC ₅₀	>5.4	mg/l
ORL	Rat	LD ₅₀	500-2000	mg/kg
SKN	Rat	LD ₅₀	>2000	ml/kg
Skin corrosion	Rabbit	-	Irritant	-

Relevant Hazards for Substance:

Effect	Route	Basis
Acute toxicity (ac. tox. 4)	ING	Based on test data
Skin corrosion/irritation	DRM	Based on test data
Serious eye damage/irritation	OPT	Based on test data

Excluded Hazards for Substance:

Hazard	Route	Basis
Respiratory/skin sensitisation	-	Based on available data the classification criteria are not met
Germ cell mutagenicity	-	Based on available data the classification criteria are not met
Carcinogenicity	-	Based on available data the classification criteria are not met
Reproductive toxicity	-	Based on available data the classification criteria are not met

Symptoms/Routes of Exposure:

Skin Contact:	There may be irritation and redness at the site of contact
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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

Section 12: Ecological Information

2,4DB Na 400g/l

12.1 Toxicity:

Species	Test	Value	Units
Daphnia magna	NOEC	3	mg/l
Daphnia magna	48H EC50	21.5	mg/l (DB)
Rainbow Trout (<i>Oncorhynchus mykiss</i>)	96H LC50	17.8	mg/l
Scenedesmus subspicatus	72H ErC50	7.9	mg/l
Lemna minor	72H ErC50	9.9	mg/l

12.2 Persistence & Degradability

Readily biodegradable

12.3 Bioaccumulative Potential

Potential for bioaccumulation is low based on Log Pow

12.4 Mobility

Limited mobility in soil column

12.5 Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance

12.6 Other Adverse Effects

Toxic to aquatic organisms

CMPP-PK 600g/l

12.1 Toxicity:

Species	Test	Value	Units
Daphnia magna	NOEC	22.2	mg/l (MCPP-p)
Lemna minor	72h or 96h ErC ₅₀	1.6	mg/l (MCPP-p)
Pseudokirchneriella subcapitata	72h or 96h ErC ₅₀	16.2	mg/l (MCPP-p)
Rainbow Trout (<i>Oncorhynchus mykiss</i>)	96h LC ₅₀	>100	mg/l (MCPP-p)
Rainbow Trout (<i>Oncorhynchus mykiss</i>)	NOEC	>50	mg/l (MCPP-p)
Daphnia magna	48h EC ₅₀	>91	mg/l (MCPP-p)

12.2 Persistence & Degradability

Readily biodegradable

12.3 Bioaccumulative Potential

Potential for bioaccumulation is low based on log Pow

12.4 Mobility

Fairly mobile but rapidly degraded in aerobic soils

12.5 Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance

12.6 Other Adverse Effects

Lemna gibba/14 day/EC₅₀ 1.6 mg/l

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
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
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