

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

Product Name: Hygrass Extra  
Product Number(s): P4405770 (5L), G4404679 (10L), G4404908 (30L)

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

Selective herbicide for the control of weeds in Amenity grassland and established grassland

**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](mailto: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]****2.2 Label Elements**

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

Pictogram:



GHS05



GHS07



GHS09

Signal word: Danger

H302 - Harmful if swallowed.  
H318 - Causes serious eye damage.  
H317 - May cause an allergic skin reaction.  
H411 - Toxic to aquatic life with long lasting effects.  
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
- P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.
- P310 - Immediately call a POISON CENTER or doctor/ physician.
- P273 - Avoid release to the environment.
- P501 - Dispose of contents/ container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non hazardous waste.

### 2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature** : Aqueous solution of dimethylammonium salts  
Contains 344 g/L 2,4-D and 120 g/L Dicamba

### 3.2. Mixtures

#### Components:

#### 2,4-D DMA

CAS-No.: 2008-39-1  
EINECS-No. / ELINCS No.: 217-915-8  
REACH No.:  
Concentration: 35.7 % (w/w)

#### Classification:

EG_1272/08 :	AcuteTox.4 EyeDam.1 SkinSens.1 AquaticChronic2	H302 - Harmful if swallowed. H318 - Causes serious eye damage. H317 - May cause an allergic skin reaction. H411 - Toxic to aquatic life with long lasting effects.
EEC/67/548 :	Xi Xn N	R41 - Risk of serious damage to eyes. R22 - Harmful if swallowed. R43 - May cause sensitization by skin contact. R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Dicamba DMA

CAS-No.: 2300-66-5  
EINECS-No. / ELINCS No.: 218-951-7  
REACH No.:  
Concentration: 12.4 % (w/w)

#### Classification:

EG_1272/08 :	EyeIrrit.2 AquaticChronic3	H319 - Causes serious eye irritation. H412 - Harmful to aquatic life with long lasting effects.
EEC/67/548 :	Xi	R36 - Irritating to eyes. R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 2,4-Dichlorophenol

CAS-No.: 120-83-2  
EINECS-No. / ELINCS No.: 204-429-6  
REACH No.: 01-2119513326-47  
Concentration: 0.1 % (w/w)

#### Classification:

EG_1272/08 :	AcuteTox.3	H311 - Toxic in contact with skin.
	AcuteTox.4	H302 - Harmful if swallowed.
	SkinCorr.1B	H314 - Causes severe skin burns and eye damage.
	AquaticChronic2	H411 - Toxic to aquatic life with long lasting effects.
EEC/67/548 :	T	R24 - Toxic in contact with skin.
	Xn	R22 - Harmful if swallowed.
	C	R34 - Causes burns.
	N	R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

Skin contact : Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. If symptoms persist, call a physician. Wash contaminated clothing before re-use.

Inhalation : Move to fresh air. If symptoms persist, call a physician.

Ingestion : Do NOT induce vomiting. Rinse mouth. If conscious, drink plenty of water. If symptoms persist, call a physician.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms : Sweating, headache, Weakness, Diarrhoea, anorexia, nausea, Salivation, stomach pains, blurred vision, muscle twitching, Convulsions, Loss of reflexes, heart and circulatory collaps, Coma

Hazards : No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

## 5. FIREFIGHTING MEASURES

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray, Carbon dioxide (CO<sub>2</sub>), Dry powder, Alcohol-resistant foam

Extinguishing media which shall not be used for safety reasons : High volume water jet

### 5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting : In the event of fire (HCl, Cl<sub>2</sub>, CO) may be formed.

### 5.3. Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

Further Information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. (see Chapter 8)

### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

### 6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Sweep up and shovel into suitable containers for disposal.

Additional advice : Never return spills in original containers for re-use.

### 6.4. Reference to other sections

see Chapter 13



## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Safe handling advice : Wear personal protective equipment. Keep out of reach of children.

### 7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a cool, well-ventilated place.

Advice on common storage : Keep out of reach of children. Keep away from food, drink and animal feeding stuffs.

#### Storage stability

Storage temperature : > 0 °C

### 7.3. Specific end use(s)

none

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Components with workplace control parameters  
(EH40/2005 Workplace exposure limits)

Components	CAS-No.	National occupational exposure limits	Note
2,4-D DMA	2008-39-1	10 mg/m <sup>3</sup>	
Dicamba DMA	2300-66-5		no classification available, not listed in EH40/2005
2,4-Dichlorophenol	120-83-2		no classification available, not listed in EH40/2005

### 8.2. Exposure controls

#### Personal protective equipment

Respiratory protection : Suitable respiratory protection for higher concentrations or long-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK).

Hand protection : Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6,

corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

Eye protection	:	Safety glasses with side-shields (frame goggles) (e.g. EN 166)
Skin and body protection	:	Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).
Hygiene measures	:	Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.
Protective measures	:	The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state	:	liquid at 20 °C ,
Form	:	Soluble concentrate
Colour	:	brown
Odour	:	amine-like

Start of crystallisation : ca.0 °C  
Aqueous solution

Boiling point/boiling range : ca.100 °C  
at 1,013 hPa  
Aqueous solution

Flash point : > 103 °C

Ignition temperature : > 424 °C

Explosivity : Not explosive

Upper explosion limit : no data available

Lower explosion limit	:	no data available
Vapour pressure	:	Active ingredients are organic salts. Vapour pressure is negligibly low.
Density	:	1.16 g/cm <sup>3</sup> at 20 °C
Water solubility	:	completely miscible
Water solubility	:	completely miscible
pH	:	8 - 10  6 - 9 at 10 g/l
Partition coefficient: n-octanol/water	:	no data available
Dissociation constant	:	no data available
Viscosity, dynamic	:	10.6 mPa.s at 20 °C

## 9.2. Other information

none

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

no data available

### 10.2. Chemical stability

No decomposition if stored and applied as directed.

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

#### 10.4. Conditions to avoid

No decomposition if stored and applied as directed.

#### 10.5. Incompatible materials to avoid

Strong acids and strong bases

#### 10.6. Hazardous decomposition products

no data available

### 11. TOXICOLOGICAL INFORMATION

#### 11.1. Information on toxicological effects

Acute oral toxicity	:	LD50 rat Dose: 1,127 mg/kg
Acute dermal toxicity	:	LD50 rat Dose: > 2,000 mg/kg
Skin irritation	:	rabbit Result: Mild skin irritation
Eye irritation	:	rabbit Classification: Risk of serious damage to eyes. Result: Severe eye irritation
Sensitisation	:	mouse Result: May cause sensitization by skin contact.

### 12. ECOLOGICAL INFORMATION

#### 12.1. Toxicity

Toxicity to birds	:	Practically non toxic.
Toxicity to bees	:	LD50 (oral) Apis mellifera (Honey bee) Testing period: 24 h Dose ( $\mu\text{g}/\text{Species}$ ): > 100



: LD50 (oral) Apis mellifera (Honey bee)  
Testing period: 48 d  
Dose ( $\mu\text{g}/\text{Species}$ ): > 100

: LD50 (oral) Apis mellifera (Honey bee)  
Testing period: 72 h  
Dose ( $\mu\text{g}/\text{Species}$ ): 95.91

: LD50 (contact) Apis mellifera (Honey bee)  
Testing period: 96 h  
Dose ( $\mu\text{g}/\text{Species}$ ): > 200

Toxicity to earthworms : LC50 Eisenia fetida (earthworms)  
Dose: > 1,000 ppm  
Testing period: 14 d

Toxicity to fish : LC50 Oncorhynchus mykiss (rainbow trout)  
Dose: > 1,000 mg/l  
Testing period: 96 h

LC50 Cyprinus carpio (Common carp)  
Dose: > 1,000 mg/l  
Testing period: 96 h

NOEC Pimephales promelas (Fathead Minnow)  
Dose: 63.4 mg/l  
Testing period: 32 d  
Test substance: (2,4-D)

semi-static test NOEC Oncorhynchus mykiss (Rainbow trout)  
Dose: 180 mg/l  
Testing period: 21 d  
Test substance: (Dicamba)

Toxicity to daphnia : EC50 Daphnia magna (Water flea)  
Dose: > 1,000 mg/l  
Testing period: 48 h

semi-static test NOEC Daphnia magna (Water flea)  
Dose: 97 mg/l  
Testing period: 21 d  
Test substance: (Dicamba)

NOEC Daphnia magna (Water flea)  
Dose: 46.2 mg/l

Testing period: 21 d  
Test substance: (2,4-D)

Toxicity to algae : LC50 *Desmodesmus subspicatus* (green algae)  
Dose: 204.6 mg/l  
Exposure time: 72 h

EC50 *Lemna gibba* (Duckweed)  
Dose: 7.378 mg/l  
Exposure time: 7 d

NOEC *Lemna gibba* (Duckweed)  
Dose: 0.32 mg/l  
Exposure time: 7 d

## 12.2. Persistence and degradability

Biodegradability : no data available

Stability in soil : DT50: 2.1 - 8 d  
(Dicamba)

DT50: 2 - 59 d  
(2,4-D)

Stability in water : DT50: 13 d  
(2,4-D)

DT50: 14 - 40 d  
(Dicamba)

## 12.3. Potential bioaccumulation

Bioaccumulation : Does not bioaccumulate.

## 12.4. Mobility in soil

Koc = 5 - 212 (2,4-D)

Kfoc = 3.45 - 21.2, 1/n = 0.72 - 0.93 (Dicamba)

## 12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## 12.6. Other adverse effects

none

### 13. DISPOSAL CONSIDERATIONS

According to European Directive 2000/532/EC as amended :

Waste Code : 02 01 08 (agrochemical waste containing dangerous substances)

#### 13.1. Waste treatment methods

Product : Dispose of product and packaging in accordance with The Green Code. (The Code of Practice for the safe use of Pesticides on Farms and Holdings.) A MAFF Publication.

Contaminated packaging : Do not dispose with household waste. Do not re-use empty containers. Dispose at licensed waste disposal site capable of accepting pesticides in compliance with applicable regulations. according to EC directive 94/62/EC

### 14. TRANSPORT INFORMATION

#### 14.1. UN number

UN3082

#### 14.2. Proper shipping name

UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.\*(2,4-D)

#### 14.3. Transport hazard class(es)

ADR/RID :  
Class : 9

IMDG :  
Class : 9

IATA-DGR :  
Class : 9

#### 14.4. Packaging group

ADR/RID : III

IMDG : III

IATA-DGR : III

#### 14.5. Environmental hazards

**IMDG**

Marine Pollutant : MP

#### 14.6. Special precautions for user

none

### 15. REGULATORY INFORMATION

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

#### 15.2. Chemical Safety Assessment

none

### 16. OTHER INFORMATION

Print Date : 2014/05/07

The date format YYYY/MM/DD is used according to ISO 8601.  
(Alterations are indicated in the left hand margin by: || )

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