

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

CA Code (Nufarm)	: 2293
Product code	: Q486A
Oracle Recipe Code (Nufarm)	: 600000088
Item codes	: 110003858
Product form	: Mixture
Trade name	: ISOMEK ULTRA
Type (Nufarm)	: Country Specific
Country (Nufarm)	: United Kingdom

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

##### 1.2.1. Relevant identified uses

Main use category	: Professional use
Use of the substance/mixture	: Herbicide

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Manufacturer

Nufarm UK Limited  
Wyke Lane  
Wyke  
BD12 9EJ Bradford - UK  
T +44 (0)1274 691234 - F +44 (0) 1274691176  
[infouk@uk.nufarm.com](mailto:infouk@uk.nufarm.com)

#### 1.4. Emergency telephone number

Emergency number : +44 (0)1274 696603

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment —	H400
Acute Hazard, Category 1	H410
Hazardous to the aquatic environment —	H410
Chronic Hazard, Category 1	

Full text of hazard classes and H-statements : see section 16

##### Adverse physicochemical, human health and environmental effects

Harmful if swallowed. May cause an allergic skin reaction. Causes serious eye damage. Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazardous ingredients :

Aqueous solution of the dimethylammonium salt Dichlorprop-P 310g/l, MCPA 160g/l & Mecoprop-P 130 g/l

Hazard statements (CLP) :

H302 - Harmful if swallowed.  
H317 - May cause an allergic skin reaction.

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Precautionary statements (CLP)	: H318 - Causes serious eye damage. H410 - Very toxic to aquatic life with long lasting effects. : P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves, protective clothing, face protection, eye protection. P301+P312 - IF SWALLOWED: Call a POISON CENTER, a doctor if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 - Dispose of contents and 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.
EUH-statements	: EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
(R)-2-(2-4-DICHLOROPHENOXY)PROPIONIC ACID, DIMETHYLAMINE SALT	(CAS-No.) 104786-87-0	31.58	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 3, H412
(4-CHLORO-2-METHYLPHENOXY) ACETIC ACID, DIMETHYLAMINE SALT	(CAS-No.) 2039-46-5 (EC-No.) 218-014-2	16.75	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
(R)-2-(4-CHLORO-2-METHYLPHENOXY) PROPIONIC ACID, DIMETHYLAMINE SALT	(CAS-No.) 66423-09-04 (EC-No.) 240-539-0	13.44	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 2, H411
EDTA	(CAS-No.) 60-00-4 (EC-No.) 200-449-4	1.59	Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319 STOT RE 2, H373

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: May cause irritation to the digestive tract. Ingestion may cause nausea and vomiting. Abdominal pain, nausea.

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

Treat symptomatically. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing vapours, spray, mist.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing vapours, spray, mist. Wear personal protective equipment.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place. Keep cool.

Information on mixed storage : Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Special rules on packaging : Keep only in original container. Store in a closed container.

#### 7.3. Specific end use(s)

Herbicide.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

EDTA (60-00-4)		
EU	Local name	EDTA
EU	Notes	(Year of adoption 2009)
EU	Regulatory reference	SCOEL Recommendations

#### 8.2. Exposure controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### Personal protective equipment:

Gloves. Protective clothing. Safety glasses.

##### Hand protection:

Protective gloves

##### Eye protection:

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Safety glasses

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment



### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: brown.
Odour	: Phenolic.
Odour threshold	: No data available
pH	: 7 (1% aq)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: > 100 °C
Flash point	: > 100 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.165 (20°C)
Solubility	: Water: completely miscible
Log Pow	: 0.21 (MCPA, pH7), -0.19 (MCPPp, pH7), 0.67 (DPp, pH7)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 31.7 mPa·s (20°C)
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing material according to EC criteria.
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). High temperature.

### 10.5. Incompatible materials

No additional information available

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### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

ISOMEK ULTRA	
LD50 oral rat	300 - 500 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (Vapours - mg/l/4h)	> 5.2 mg/l/4h

Acute toxicity (oral)	: Oral: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7 (1% aq)
Serious eye damage/irritation	: Causes serious eye damage. pH: 7 (1% aq)
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: Very toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	: Very toxic to aquatic life.
Chronic aquatic toxicity	: Very toxic to aquatic life with long lasting effects.

ISOMEK ULTRA	
LC50 96h fish	> 1000 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout)
EC50 48h crustacea	825 ml/l <i>Daphnia magna</i>
EC50 72h algae	1170 mg/l <i>Chlorella fusca</i>
NOEC (chronic)	> 500 mg/l <i>Daphnia magna</i> (Water flea)
NOEC chronic fish	100 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout)

#### Additional ecotoxicological information

14d ErC10 (*Myriophyllum spicatum*) <0.01 mg/L (total shoot length, fresh weight)  
14d ErC50 (*Myriophyllum spicatum*) 0.264 mg/L (fresh weight)  
14d NOErC (*Myriophyllum spicatum*) 0.01 mg/L (total shoot length, fresh weight, dry weight)

#### (R)-2-(4-CHLORO-2-METHYLPHENOXY) PROPIONIC ACID, DIMETHYLAMINE SALT (66423-09-04)

##### Additional ecotoxicological information

14d ErC10 (*Myriophyllum spicatum*) 0.00106mg/L (Mecoprop-p)  
14d ErC50 (*Myriophyllum spicatum*) 0.0269mg/L (Mecoprop-p)

### 12.2. Persistence and degradability

ISOMEK ULTRA	
Persistence and degradability	Readily biodegradable.
(R)-2-(2-4-DICHLOROPHENOXY)PROPIONIC ACID, DIMETHYLAMINE SALT (104786-87-0)	
Persistence and degradability	Readily biodegradable.
(4-CHLORO-2-METHYLPHENOXY) ACETIC ACID, DIMETHYLAMINE SALT (2039-46-5)	
Persistence and degradability	Readily biodegradable.
(R)-2-(4-CHLORO-2-METHYLPHENOXY) PROPIONIC ACID, DIMETHYLAMINE SALT (66423-09-04)	
Persistence and degradability	Readily biodegradable.

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### 12.3. Bioaccumulative potential

ISOMEC ULTRA	
Log Pow	0.21 (MCPA, pH7), -0.19 (MCPPp, pH7), 0.67 (DPP, pH7)
Bioaccumulative potential	No bioaccumulation.

(4-CHLORO-2-METHYLPHENOXY) ACETIC ACID, DIMETHYLAMINE SALT (2039-46-5)	
Bioaccumulative potential	Low bioaccumulation potential.

### 12.4. Mobility in soil

ISOMEC ULTRA	
Mobility in soil	Adsorbs into the soil

(4-CHLORO-2-METHYLPHENOXY) ACETIC ACID, DIMETHYLAMINE SALT (2039-46-5)	
Mobility in soil	Adsorbs into the soil

### 12.5. Results of PBT and vPvB assessment

ISOMEC ULTRA	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

### 12.6. Other adverse effects

No additional information available




## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA
<b>14.1. UN number</b> 3082	3082	3082
<b>14.2. UN proper shipping name</b> ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dichlorprop-P, Mecoprop-P, MCPA)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dichlorprop-P, Mecoprop-P, MCPA)	Environmentally hazardous substance, liquid, n.o.s. (Dichlorprop-P, Mecoprop-P, MCPA)
<b>Transport document description (ADR)</b> UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dichlorprop-P, Mecoprop-P, MCPA), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dichlorprop-P, Mecoprop-P, MCPA), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Dichlorprop-P, Mecoprop-P, MCPA), 9, III
<b>14.3. Transport hazard class(es)</b> 9 	9 	9 
<b>14.4. Packing group</b> III	III	III
<b>14.5. Environmental hazards</b> Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

### 14.6. Special precautions for user

#### - Overland transport

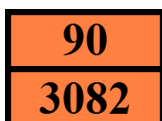
Classification code (ADR)	: M6
Special provisions (ADR)	: 274, 335, 375, 601
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1

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Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90
Orange plates	:



Tunnel restriction code (ADR) : -

### - Transport by sea

Special provisions (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP2, TP29
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F
Stowage category (IMDG)	: A

### - Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197
ERG code (IATA)	: 9L

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions  
Contains no substance on the REACH candidate list  
Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

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### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.1	Adverse physicochemical, human health and environmental effects	Modified	
2.2	Precautionary statements (CLP)	Modified	
2.2	Hazard statements (CLP)	Modified	
2.2	Hazard pictograms (CLP)	Modified	
3	Composition/information on ingredients	Modified	
4.1	First-aid measures after eye contact	Modified	
7.2	Information on mixed storage	Added	
7.2	Special rules on packaging	Added	
7.2	Packaging materials	Removed	
9.1	Log Pow	Added	
9.1	Viscosity, dynamic	Modified	
9.1	Relative density	Modified	
11.1	Reason for no classification	Removed	
11.1	Reason for no classification	Removed	
11.1	ATE CLP (oral)	Modified	
12.1	EC50 72h algae	Modified	
12.1	NOEC chronic fish	Modified	
12.1	EC50 48h crustacea	Modified	
12.3	Log Pow	Added	
14.1	UN-No. (ADR)	Added	
14.1	UN-No. (IMDG)	Added	
14.1	UN-No. (IATA)	Added	
14.1	UN-No. (ADN)	Added	
14.2	Proper Shipping Name (ADN)	Added	
14.2	Proper Shipping Name (ADR)	Added	
14.3	Danger labels (RID)	Added	
14.3	Danger labels (ADR)	Added	
14.3	Class (ADR)	Added	
14.4	Packing group (ADN)	Added	
14.4	Packing group (IATA)	Added	
14.4	Packing group (IMDG)	Added	
14.4	Packing group (ADR)	Added	
14.6	Special provisions (ADN)	Added	
14.6	Special packing provisions (IMDG)	Added	
14.6	Packing instructions (IMDG)	Added	
14.6	Transport category (ADR)	Added	
14.6	Special provisions (ADR)	Added	
14.6	Excepted quantities (ADR)	Added	
14.6	Limited quantities (ADR)	Added	
14.6	Tunnel restriction code (ADR)	Added	
14.6	Hazard identification number (Kemler No.)	Added	
14.6	Classification code (ADR)	Added	

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1



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Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

### NUFARM SDS TEMPLATE

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*