

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

#### 1.1. Product identifier

CA Code (Nufarm)	: 2773
Product code	: T702A
Oracle Recipe Code (Nufarm)	: 600000123
Item codes	: 100007013
Product form	: Mixture
Trade name	: TURFMASTER
Type (Nufarm)	: Country Specific
Country (Nufarm)	: United Kingdom
Synonyms	: (4-CHLORO-2-METHYLPHENOXY) ACETIC ACID/(R)-2-(4-CHLORO-2-METHYLPHENOXY)PROPIONIC ACID/DICAMBA K salts

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

##### 1.2.1. Relevant identified uses

Main use category	: Industrial use, 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]

Serious eye damage/eye irritation, Category H318

1

Hazardous to the aquatic environment — H411

Chronic Hazard, Category 2

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

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

Causes serious eye damage. Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

GHS09

Signal word (CLP) :

Danger

Hazardous ingredients :

(4-CHLORO-2-METHYLPHENOXY) ACETIC ACID/(R)-2-(4-CHLORO-2-METHYLPHENOXY)PROPIONIC ACID/DICAMBA K salts

Hazard statements (CLP) :

H318 - Causes serious eye damage  
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P273 - Avoid release to the environment.  
P280 - Wear eye protection, face protection, protective clothing, protective gloves.

# TURFMASTER

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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 doctor, a POISON CENTER.  
P501 - Dispose of contents and container to an approved waste disposal plant.

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

## 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]
(4-CHLORO-2-METHYLPHENOXY) ACETIC ACID, Potassium salt	(CAS-No.) 5221-16-9 (EC-No.) 226-015-4	23	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, POTASSIUM SALT	(CAS-No.) 66423-05-0 (EC-No.) 240-539-0	4.0	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 2, H411
POTASSIUM 3,6-DICHLORO-O-ANISATE	(CAS-No.) 10007-85-9 (EC-No.) 233-002-7 (EC Index-No.) 607-044-00-5	1.8	Eye Irrit. 2, H319 Aquatic Chronic 3, H412
EDETIC ACID (EDTA)	(CAS-No.) 60-00-4 (EC-No.) 200-449-4 (EC Index-No.) 607-429-00-8	1.5	Eye Irrit. 2, H319

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 : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Call a physician immediately.  
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.  
First-aid measures after ingestion : Rinse mouth. Call a poison center or a doctor if you feel unwell. Do not induce vomiting. Give 500 ml water to drink.

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

Symptoms/effects after inhalation : May cause shortness of breath, tightness of the chest, a sore throat and cough.  
Symptoms/effects after skin contact : Causes mild skin irritation.  
Symptoms/effects after eye contact : Serious damage to eyes.  
Symptoms/effects after ingestion : Abdominal pain, nausea. Ingestion may cause nausea and vomiting. May cause irritation to the digestive tract.

### 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.

## 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.

# TURFMASTER

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 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.

#### 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

For containment : Absorb spilled material with sand or earth.

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 8: "Exposure controls/personal protection". 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. Wear personal protective equipment. Avoid the formation of mists in the atmosphere. Do not manipulate the product in a confined space.

Hygiene measures : 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. Keep container closed when not in use. Protect against frost.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

(4-CHLORO-2-METHYLPHENOXY) ACETIC ACID, Potassium salt (5221-16-9)		
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> 8 h
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup> 15 min
(R)-2-(4-CHLORO-2-METHYLPHENOXY)PROPIONIC ACID, POTASSIUM SALT (66423-05-0)		
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> 8 h
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup> 15 min
EDETIC ACID (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. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### Personal protective equipment:

Protective clothing. Gloves. Safety glasses.

#### Materials for protective clothing:

Nitrile rubber

#### Hand protection:

# TURFMASTER

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Protective gloves

### Eye protection:

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
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	: ≈ 1.16
Solubility	: Water: Miscible with water
Log Pow	: 2.8 (MCPp)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 4.5 mPa.s
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).

# TURFMASTER

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 10.5. Incompatible materials

Oxidizing agent. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

TURFMASTER	
LD50 oral rat	962 mg/kg (MCPA)
LD50 oral	431 - 1050 mg/kg (MCPPp)
LD50 dermal rat	> 4000 mg/kg (MCPA)
LD50 dermal	> 4000 mg/kg (MCPPp) - Rat
LC50 inhalation rat (mg/l)	6.36 mg/l/4h MCPA
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 5.6 mg/l/4h MCPPp

POTASSIUM 3,6-DICHLORO-O-ANISATE (10007-85-9)	
LD50 oral rat	1707 mg/kg Dicamba
LD50 dermal rabbit	> 2000 mg/kg Dicamba
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 9.6 mg/l/4h Dicamba

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: ≈ 7
Serious eye damage/irritation	: Causes serious eye damage. pH: ≈ 7
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
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	: Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

TURFMASTER	
LC50 fish 1	50 mg/l (MCPA)
LC50 fish 2	> 100 (MCPPp)
EC50 Daphnia 1	> 190 mg/l (MCPA)
EC50 Daphnia 2	> 270 (MCPPp)
EC50 72h algae (1)	57 mg/l MCPA
EC50 72h algae (2)	16.2 mg/l MCPPp

#### Additional Ecotox information

(4-CHLORO-2-METHYLPHENOXY) ACETIC ACID, Potassium salt (5221-16-9)	
Additional Ecotox information	

(R)-2-(4-CHLORO-2-METHYLPHENOXY)PROPIONIC ACID, POTASSIUM SALT (66423-05-0)	
Additional Ecotox information	

POTASSIUM 3,6-DICHLORO-O-ANISATE (10007-85-9)	
LC50 fish 1	135 mg/l Dicamba

# TURFMASTER

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### POTASSIUM 3,6-DICHLORO-O-ANISATE (10007-85-9)

EC50 Daphnia 1	110 mg/l Dicamba
EC50 72h algae (1)	250 mg/l Dicamba

Additional Ecotox information

### EDETIC ACID (EDTA) (60-00-4)

Additional Ecotox information

#### 12.2. Persistence and degradability

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Biodegradation DT50 : 6.3-8.2d. (mecoprop-P). DT50 : 2.1-8d (Dicamba). DT50 : 7-14d (MCPA).

#### 12.3. Bioaccumulative potential

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Log Pow 2.8 (MCPp)  
Bioaccumulative potential No bioaccumulation.

#### 12.4. Mobility in soil

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Surface tension 50.7 mN/m 20°C  
Log Koc Koc = 135-167 (mecoprop-P). Kfoc = 3.45-21.2, 1/n=0.72-0.93 (Dicamba). Koc=10-157(MCPA)

#### 12.5. Results of PBT and vPvB assessment

##### TURFMASTER

This substance/mixture does not meet the PBT 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>		
Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>		
Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>		
Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>		
Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>		
Not regulated	Not regulated	Not regulated
No supplementary information available		

#### 14.6. Special precautions for user

##### - Overland transport

Not regulated

##### - Transport by sea

Not regulated

##### - Air transport

Not regulated

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

Not applicable

# TURFMASTER

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 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

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

Other information : For Transport - ADR classification based on using own data and according to the criteria of 2.2.9.1.10.3 and 2.2.9.1.10.4 of ADR 2011.

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
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
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H318	Causes serious eye damage
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
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*