

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

1.1. Product identifier

| | |
|-----------------------------|---|
| CA Code (Nufarm) | : 3062 |
| Product code | : W468A |
| Oracle Recipe Code (Nufarm) | : 600000150 |
| Item codes | : 100006939 |
| Product form | : Mixture |
| Trade name | : CLOVERMAX |
| Type (Nufarm) | : Country Specific |
| Country (Nufarm) | : United Kingdom |
| Synonyms | : 4-(2,4-DICHLOROPHENOXY) BUTYRIC ACID/(4-CHLORO-2-METHYLPHENOXY) ACETIC ACID,SODIUM/ POTASSIUM SALTS 240/40 G/L AI |

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,Industrial 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

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 |
| Hazardous to the aquatic environment — Chronic Hazard, Category 2 | H411 |

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

Adverse physicochemical, human health and environmental effects

Harmful if swallowed. Causes serious eye damage.

2.2. Label elements

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

Hazard pictograms (CLP) :



| | |
|-------------------------|--|
| Signal word (CLP) | : Danger |
| Hazardous ingredients | : 4-(2,4-DICHLOROPHENOXY) BUTYRIC ACID, SODIUM SALT & (4-CHLORO-2-METHYLPHENOXY) ACETIC ACID, POTASSIUM SALT |
| Hazard statements (CLP) | : H302 - Harmful if swallowed. H318 - Causes serious eye damage. H411 - Toxic to aquatic life with long lasting effects. |

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Safety Data Sheet

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

| | |
|--------------------------------|---|
| Precautionary statements (CLP) | : P270 - Do not eat, drink or smoke when using this product. P273 - Avoid release to the environment. P280 - Wear eye protection, face protection, protective clothing, protective gloves. P301+P312 - IF SWALLOWED: Call a doctor, a POISON CENTER if you feel unwell. 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 hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. |
| 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] |
|--|--|------|---|
| 4-(2,4-DICHLOROPHENOXY) BUTYRIC ACID, SODIUM SALT | (CAS-No.) 10433-59-7 (EC-No.) 233-917-1 | 23.0 | Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 2, H411 |
| (4-CHLORO-2-METHYLPHENOXY) ACETIC ACID, Potassium salt | (CAS-No.) 5221-16-9 (EC-No.) 226-015-4 | 4.2 | Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| EDTA | (CAS-No.) 60-00-4 (EC-No.) 200-449-4 | 2.2 | 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 occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| 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.

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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 : 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. Keep container closed when not in use.

7.3. Specific end use(s)

No additional information available

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 |
| (4-CHLORO-2-METHYLPHENOXY) ACETIC ACID, Potassium salt (5221-16-9) | | |
| United Kingdom | WEL TWA (mg/m ³) | 10 mg/m ³ 8 H |
| United Kingdom | WEL STEL (mg/m ³) | 20 mg/m ³ 15 min |

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.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

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

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

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|--|--|
| Physical state | : Liquid |
| Colour | : brown. |
| Odour | : Phenolic. |
| Odour threshold | : No data available |
| pH | : 9 - 11 |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : > 100 °C |
| Flash point | : No data available |
| 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 | : 1.12 - 1.15 |
| Solubility | : Miscible with water. |
| Log Pow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| 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). Heat.

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.

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| CLOVERMAX | |
|---|-----------------------------|
| LD50 oral rat | 667 - 2000 mg/kg DB Na400 |
| LD50 oral | 1662 mg/kg MCPA K 400 (rat) |
| LD50 dermal rat | > 2000 mg/kg DB Na 400 |
| LD50 dermal | > 2000 mg/kg MCPA K 400 |
| LC50 inhalation rat (mg/l) | > 2.3 mg/l/4h DB |
| LC50 inhalation rat (Dust/Mist - mg/l/4h) | > 5.21 mg/l/4h MCPA K 400 |

| | |
|-----------------------------------|---|
| Acute toxicity (oral) | : Oral: Harmful if swallowed. |
| 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: 9 - 11 |
| Serious eye damage/irritation | : Causes serious eye damage. pH: 9 - 11 |
| 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 | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Acute aquatic toxicity | : Not classified |
| Chronic aquatic toxicity | : Toxic to aquatic life with long lasting effects. |

| CLOVERMAX | |
|------------------------|--|
| LC50 96h fish | > 17.8 mg/l Oncorhynchus mykiss DB Na 400 |
| LC50 96h fish | 50 mg/l Oncorhynchus mykiss (mcpa) |
| EC50 48h crustacea | 21.5 mg/l daphnia (DB Amine) |
| EC50 48h crustacea | 190 mg/l daphnia (MCPA) |
| EC50 72h algae | 7.9 mg/l Scenedesmus Subspicatus DB Na 400 |
| EC50 72h algae | 9.9 mg/l |
| EC50 96h algae | 9.9 mg/l Lemna DB Na 400 |
| EC50 96h algae | 1.52 mg/l IEMNA (MCPA) |
| NOEC (chronic) | 50 mg/l daphnia (MCPA) |
| NOEC chronic fish | 15 mg/l Oncorhynchus mykiss (MCPA) |
| NOEC chronic crustacea | 3 mg/l daphnia DB Na 400 |

Additional Ecotox information

Colinus virginianus (Bobwhite Quail) LD50 1545 mg/Kg (2,4-DB)
Colinus virginianus (Bobwhite Quail) LD50 270 mg/Kg (MCPA)

LD50 (contact) Apis mellifera (Honey bee) >100 µg/Species (2,4-DB)
LD50 (oral) Apis mellifera (Honey bee) >100 µg/Species (2,4-DB)

LD50 (contact) Apis mellifera (Honey bee) >200 µg/Species (MCPA)
LD50 (oral) Apis mellifera (Honey bee) >200 µg/Species (MCPA)

LC50 Eisenia fetida (earthworms) >1000mg/Kg (2,4-DB)
LC50 Eisenia fetida (earthworms); 14d; >1000mg/Kg (MCPA)

EDTA (60-00-4)

Additional Ecotox information

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4-(2,4-DICHLOROPHENOXY) BUTYRIC ACID, SODIUM SALT (10433-59-7)

Additional Ecotox information

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

Additional Ecotox information

12.2. Persistence and degradability

CLOVERMAX

| | |
|-------------------------------|---------------------------------------|
| Persistence and degradability | Readily biodegradable. |
| Biodegradation | DT50 1-2d (2,4 DB); DT50 7-41d (MCPA) |

12.3. Bioaccumulative potential

CLOVERMAX

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|---------------------------|--------------------------------|
| Bioaccumulative potential | Low bioaccumulation potential. |
|---------------------------|--------------------------------|

12.4. Mobility in soil

CLOVERMAX

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|------------------|---|
| Mobility in soil | Adsorbs into the soil |
| Log Koc | Koc = 112.5-455.8 (2,4-DB); Koc = 10-157 (MCPA) |

12.5. Results of PBT and vPvB assessment

CLOVERMAX

| |
|--|
| 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 |
|---|---------------|---------------|
| 14.1. UN number | | |
| Not regulated | Not regulated | Not regulated |
| 14.2. UN proper shipping name | | |
| Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) | | |
| Not regulated | Not regulated | Not regulated |
| 14.4. Packing group | | |
| Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | |
| 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

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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 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| STOT RE 2 | Specific target organ toxicity — Repeated exposure, 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. |
| 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. |
| 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