Goltix® 70 SC

MAPP 16638    PCS 04668
metamitron 700 g/l

A selective herbicide with foliar and root activity for use in sugar beet, beetroot, fodder beet and mangels.

A suspension concentrate formulation containing 700g/l (58.3% w/w) metamitron.

Warning

Harmful if swallowed.
Very toxic to aquatic life with long lasting effects.
Contains reaction mass of:
5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one. May produce an allergic reaction.
Keep out of reach of children.
If swallowed: Immediately call a poison centre or doctor/physician.
Do not eat, drink or smoke when using this product.
UK only: 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.
Ireland only: Dispose of contents/container to a licensed waste disposal contractor or collection site except for triple rinsed, empty containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment, comply with the instructions for use.

MAPP 16638    PCS 04668
SAFETY PRECAUTIONS

Operator Protection
UK only - Engineering control of operator exposure must be used where reasonably practicable, in addition to the following personal protective equipment:
WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate or handling contaminated surfaces.

UK only - However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

TAKE OFF IMMEDIATELY all contaminated clothing.
WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.
WASH HANDS AND EXPOSED SKIN before eating and drinking and after work.
WHEN USING, DO NOT EAT, DRINK OR SMOKE.

Environmental Protection
Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.
Extreme care must be taken to avoid spray drift on to non-crop plants outside of the target area.

Storage and Disposal
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.
DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

IMPORTANT INFORMATION
FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL HERBICIDE

<table>
<thead>
<tr>
<th>Crop</th>
<th>Maximum individual dose (litres product/ha)</th>
<th>Maximum total dose (litres product/ha)</th>
<th>Latest time of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar beet, red beet, fodder beet and mangels</td>
<td>2.0</td>
<td>5.0</td>
<td>Before crop leaves meet between the rows.</td>
</tr>
</tbody>
</table>

Other specific restrictions:
The minimum interval between applications is 6 days.
Fodder beet and mangels must not be grazed by livestock or harvested for animal consumption until at least 32 days following the last application.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.
DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

GOLTIX® 70 SC is a versatile crop safe selective herbicide with contact and residual properties acting by both leaf and root uptake for the control of annual weeds in sugar beet, red beet, fodder beet and mangels. GOLTIX 70 SC is absorbed by the roots of any emerging weeds.

RESTRICTIONS AND WARNINGS

Pre-emergence application is not recommended on organic soils.

Factors affecting crop tolerance
GOLTIX 70 SC exhibits great safety to beet combined with consistent weed control when used as recommended. The beet plant is, however, very sensitive to herbicide treatments if the following stress factors occur: previously applied pesticides and herbicides (other than GOLTIX 70 SC pre-emergence on mineral soils), soft growth after prolonged rain, sudden changes in temperature, high light intensity, high radiant temperatures, prolonged low temperature periods, insect and fungal attack, damage by wind blows, nutrient deficiencies such as manganese. If these or any other stress-inducing conditions occur, some cotyledon tip scorch may occasionally result. Under these conditions crop tolerance to GOLTIX 70 SC + Cropspray 11E (UK only)/Newman Cropspray 11 E (Ireland only) may be reduced, particularly when used in conjunction with other herbicides either as tank-mixes or sequentially.

Uneven application
Spraying can be uneven due to the movement of spraying equipment, ground undulations, proximity of hedgerows etc. This can lead to local high dosages of chemical and damage to the crop for which no responsibility can be accepted by the suppliers.

RESISTANCE

This product contains metamitron, a Group C1 herbicide, based on the mode of action classification system of the Herbicide Resistance Action Committee. Repeated use of herbicides with the same mode of action can increase the risk of strains of weeds developing resistance to these compounds, leading to poor control. In order to minimise the risk, a strategy for preventing and managing such resistance should be adopted.

Growers are advised to apply products containing herbicides with different modes of action in sequence or tank-mix where two or more components are active against the target weeds.

Use the recommended rate of GOLTIX 70 SC and the correct application timing for the hardest to control weed species present in the field.

The above should be used in conjunction with effective cropping rotation and cultivation techniques e.g. stale seedbed, cultivation and use of non-selective herbicide prior to drilling.

Further guidance on weed resistance management is available from the Herbicide Resistance Action Committee (HRAC) and Weed Resistance Action Group (WRAG). Follow WRAG Guidelines.

WEEDS CONTROLLED

Pre-emergence followed by post-emergence applications
Weeds controlled from a pre-emergence application of GOLTIX 70 SC followed by a programme of well timed sprays of post-emergence (at the early cotyledon stage of the weeds) applications of GOLTIX 70 SC + Cropspray 11E (UK only)/Newman Cropspray 11E (Ireland only).

Susceptible
Dead-nettle, red
Groundsel
Fat-hen
Scarlet pimpernel

Moderately susceptible
Chickweed, common

Resistant
Black-bindweed
Knotgrass
Cleavers
Pansy, field
Post-emergence programme

Weeds controlled at early cotyledon stage from a series of well timed sprays of GOLTIX 70 SC + Cropspray 11E (UK only)/Newman Cropspray 11E (Ireland only) applications.

Susceptible

- Annual meadowgrass
- Dead-nettle, red
- Groundsel
- Nettle, small
- Pineappleweed
- Shepherd’s purse
- Chickweed, common
- Fat-hen
- Hemp-nettle, common
- Orache, common
- Poppy, common
- Speedwells

Moderately susceptible

- Forget-me-not, field
- Mayweeds
- Penny-cress, field
- Redshank
- Knotgrass
- Pansy, field
- Persicaria, pale
- Scarlet pimpernel

Moderately resistant

- Fumitory, common
- Parsley, fool’s

Resistant

- Black-bindweed
- Cleavers
- Perennial weeds

It is important to adhere to the full programme of sprays to ensure complete kill, particularly under dry soil conditions.

CROP SPECIFIC INFORMATION

GOLTIX 70 SC is recommended for use in all varieties of sugar beet grown on mineral and organic soils and red beet, fodder beet and mangels grown on mineral soils.

TIME OF APPLICATION

GOLTIX 70 SC may be applied either as a pre-emergence application followed by post-emergence applications or as a post-emergence programme.

Pre-emergence of beet followed by post-emergence applications:

Apply the first application of GOLTIX 70 SC at the pre-emergence stage of the crop. Prolonged dry weather after application may reduce effectiveness.

Best results will be obtained on a fine, well consolidated seedbed, free from clods and established weeds. Cloddy or fluffy seedbeds or very dry conditions will reduce activity.

A second application should be applied post-emergence of the crop at the first weed flush, when the weeds are at the expanded cotyledon stage.

A further application should be applied when the next flush of weeds germinate. This is usually 10-21 days after the first post-emergence application.

Post-emergence programme:

The first application should be made at the cotyledon stage of the earliest germinating weeds. The size of the beet does not matter provided the crop is not under stress. The treatment should be repeated as each flush of weeds reaches the cotyledon stage until weed germination ceases.

If weeds have survived the previous spray 7-10 days after treatment, another application should be made even if no new weeds have germinated during the period.

RATE OF USE

Pre-emergence of beet followed by post-emergence applications:

On all mineral soils apply GOLTIX 70 SC at 1.65 L/ha in 80-200 litres of water per hectare as an overall pre-emergence application. This should precede two post-emergence sprays of GOLTIX 70 SC at 1.65 L/ha + Cropspray 11E (UK only)/Newman Cropspray 11E (Ireland only) at 1.65 L/ha applied in 80-100 L/ha water. Alternatively an application of GOLTIX 70 SC may be used pre-emergence at 2.0 L/ha followed by 2 post-emergence applications of GOLTIX 70 SC at 1.5 L/ha + Cropspray 11E (UK only)/Newman Cropspray 11E (Ireland only) at 1.65 L/ha.

Post-emergence programme:

An overall programme of three sprays using:

GOLTIX 70 SC 1.65 L/ha + Cropspray 11E (UK only)/Newman Cropspray 11E (Ireland only) at 1.65 L/ha in 80-100 litres of water per hectare.

N B. The residual activity of GOLTIX 70 SC is dependent on the cumulative rate of GOLTIX 70 SC applied; therefore, if the full programme of sprays is not used, residual activity and efficacy will be reduced.
**FOLLOWING CROPS**

Beet crops may be sown at any time following the use of GOLTIX 70 SC.

Providing 16 weeks elapse from the last application of GOLTIX 70 SC, winter cereals may be sown in the same season. Any spring crop may be sown in the season following use of GOLTIX 70 SC or GOLTIX 70 SC/Cropspray 11E (UK only)/Newman Cropspray 11E (Ireland only).

Mouldboard ploughing to a depth of 15cm followed by thorough cultivation is recommended before planting any crop.

**MIXING AND SPRAYING**

Thoroughly shake the pack before use.

Add the required quantity of GOLTIX 70 SC to the half-filled spray tank with the agitation system in operation and then fill to the required level. Continue agitation at all times during spraying and stoppages until the tank is completely empty. Spray immediately after mixing.

When tank-mixes are to be used, each product should be added separately to the tank; the GOLTIX 70 SC should be dispersed first unless otherwise specified under the Compatibility section.

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of container safely.

Pre-emergence of the crop use a FINE-MEDIUM spray and post-emergence a FINE spray as defined by the BCPC system. Avoid spray drift.

Do not use finer than 80 mesh filters in spray lines or nozzles.

Clean spray equipment thoroughly after use.

**COMPATIBILITY**

UK only

GOLTIX 70 SC can be used as a 2-way tank-mix with any of the following products to improve the weed control spectrum:

- Ethosat® 500
- Powertwin®
- Twin®
- Cropspray 11E

Always read the label of the partner product carefully before use.

Ireland only

For information on tank-mixes, consult Adama Agricultural Solutions UK Ltd, your agronomist or your distributor.

**CONDITIONS OF SUPPLY**

All products supplied by us are of high grade and conform to specification at the time of delivery but, as we cannot exercise control over their subsequent storage, handling, mixing or use or the weather conditions before, during and after application which may affect the performance of the products, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our products are excluded and no responsibility or liability will be accepted by us or our re-sellers for any failure in performance, damage or injury to person or property whatsoever arising from the storage, handling, application or use of the products. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such products.

Marketed by:
Adama Agricultural Solutions UK Ltd
Unit 15, Thatcham Business Village
Colthrop Way, Thatcham, Berkshire RG19 4LW
Tel: 01635 860555
Technical Helpline: 01635 876622
UK: www.adama.com
Email: ukenquiries@adama.com

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Other brand names referred to on this label are trademarks of other manufacturers in which proprietary rights may exist.
This Safety Data Sheet does not form part of the approved label. Following the instructions on the pesticide Product Label for the specified uses should ensure that the product is used safely and efficaciously for those uses.

SAFETY DATA SHEET
Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) Annex II

Revision Date 23-Sep-2014  
Product No. HRB00600-44/1  
Publish Date 23-Sep-2014

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Goltix 70 SC

1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended use Herbicide
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet
Supplier address Adama Agricultural Solutions UK Ltd
Unit 15, Thatcham Business Village, Colthrop Way, Thatcham, Berkshire RG19 4LW
Tel: 01635 860555  
Fax: 01635 861555

For further information, please contact
Email address ukenquiries@adama.com

1.4. Emergency telephone number
Emergency telephone National Chemical Emergency Centre (UK):
Tel: 01865 407333 (24 hours)

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acute toxicity - Oral Category 4 - (H302)
Acute aquatic toxicity Category 1 - (H400)
Hazardous to the aquatic environment - Chronic hazard
Classification according to Directive 67/548/EEC or 1999/45/EC
Full text of R-phrases: see Section 16.
Xn;R22 - N;R50

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard pictograms

Signal word
Warning

Hazard statements
H302 - Harmful if swallowed
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements
P102 - Keep out of reach of children
P270 - Do not eat, drink or smoke when using this product
P501 - Dispose of contents/container to an approved waste disposal plant

EU Specific hazard statements
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use
EUH208 - Contains reaction mass of:
5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one. May produce an allergic reaction

Additional phrases for PPP
SP1 - Do not contaminate water with the product or its container

2.3. Other hazards
No information available
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight-%</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Index No.</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Classification according to 67/548/EEC</th>
<th>M-Factor</th>
<th>REACH Registration Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metamitron</td>
<td>55-62</td>
<td>41394-05-2</td>
<td>255-349-3</td>
<td>613-129-00-8</td>
<td>Acute Tox. 4 (H302) Xn; R22</td>
<td>Aquatic Acute 1 (H400) N; R50</td>
<td>M=1</td>
<td>-</td>
</tr>
</tbody>
</table>

Full text of R-phrases: see Section 16. Full text of H- and EUH-phrases: see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!

Inhalation
Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Eye contact
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion
Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

Self protection of the first aider
Use personal protective equipment as required.

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

Symptoms
None known.

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

Note to physicians
Treat symptomatically.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Use personal protective equipment as required.

For emergency responders
Use personal protection recommended in Section 8.

6.2. Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up
Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Other information
See also Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling
Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fumes/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product.

General hygiene considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

7.3. Specific end use(s)

Risk Management Methods (RMM)
The information required is contained in this Material Safety Data Sheet.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Derived No Effect Level (DNEL)
No information available.

Predicted No Effect Concentration (PNEC)
No information available.

8.2. Exposure controls

Engineering controls
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection  
Tight sealing safety goggles.

Body protection  
Suitable protective clothing.

General hygiene considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Environmental exposure controls
Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>Beige</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>Slight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>5.8 - 6.8</td>
<td>CIPAC MT 75</td>
<td>Solution (1%)</td>
</tr>
<tr>
<td>Melting point/freezing point °C</td>
<td>---</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point/boiling range °C</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point °C</td>
<td>&gt; 73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable for liquids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure kPa</td>
<td>---</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.2</td>
<td>OECD 109</td>
<td></td>
</tr>
<tr>
<td>Solubility(ies) mg/l</td>
<td>No data available</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water) Log Pow</td>
<td>---</td>
<td></td>
<td>See Section 12 for more information</td>
</tr>
<tr>
<td>Autoignition temperature °C</td>
<td>475</td>
<td>EEC A.15</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature °C</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity mm²/s 40°C</td>
<td>130</td>
<td>CIPAC MT 114</td>
<td>20°C</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not an explosive</td>
<td>EEC A.14</td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9.2. Other information

Bulk density g/ml                              | ---           |                 | Not applicable              |

Surface tension mN/m                            | 51.5          | OECD 115        |                             |

Minimum ignition energy (MIE) mJ                |               |                 |                             |
SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
Not available.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None under normal processing.

10.4. Conditions to avoid
Heat, flames and sparks.

10.5. Incompatible materials
No information available.

10.6. Hazardous decomposition products

SECTION 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th></th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 mg/kg</td>
<td>300-2000</td>
<td>Rat</td>
<td>OECD 423</td>
<td></td>
</tr>
<tr>
<td>Dermal LD50 mg/kg</td>
<td>&gt;4000</td>
<td>Rat</td>
<td>OECD 402</td>
<td></td>
</tr>
<tr>
<td>Inhalation LC50 mg/l/4h</td>
<td>&gt;1.878</td>
<td>Rat</td>
<td>OECD 403</td>
<td>Maximum attainable concentration</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Non-irritating to the skin
Serious eye damage/eye irritation: Not irritating to eyes
Respiratory/skin sensitisation: Not a skin sensitiser

Chronic toxicity

Germ cell mutagenicity
Chemical name: Metamitron
: Not classified

Carcinogenicity
Chemical name: Metamitron
: Not carcinogenic

Reproductive toxicity
Chemical name: Metamitron
: Not toxic for the reproductive system

STOT - single exposure
Chemical name: Metamitron
: No data available

STOT - repeated exposure
Chemical name: Metamitron
: No data available

Aspiration hazard
Chemical name: Metamitron
: No data available
### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1. Toxicity

##### Aquatic toxicity

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish 96-hour LC50 mg/l</td>
<td>&gt;200</td>
<td>Rainbow trout</td>
<td>OECD 203</td>
<td></td>
</tr>
<tr>
<td>Crustacea 48-hour EC50 mg/l</td>
<td>136.1</td>
<td>Daphnia magna</td>
<td>OECD 202</td>
<td></td>
</tr>
<tr>
<td>Algae 72-hour EC50 mg/l</td>
<td>0.56</td>
<td>P. subcapitata</td>
<td>OECD 201</td>
<td></td>
</tr>
<tr>
<td>Other plants EC50 mg/l</td>
<td>2.51</td>
<td>Lemna</td>
<td>OECD 221</td>
<td>7 days</td>
</tr>
</tbody>
</table>

**Terrestrial toxicity**
- **Birds oral LD50 mg/kg**
  - Chemical name: Metamitron
    - LD50: 1302
    - Species: Japanese quail
    - Method: OECD 401

| Bees oral LD50 μg/bee        | >97.2   | Metamitron         | OECD 213   |         |

#### 12.2. Persistence and degradability

##### Abiotic degradation

<table>
<thead>
<tr>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water DT50 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical name</td>
<td>Metamitron</td>
<td>10.8 - 11.4</td>
</tr>
<tr>
<td>Soil DT50 days</td>
<td>Metamitron</td>
<td>2 - 45</td>
</tr>
</tbody>
</table>

##### Biodegradation

| Chemical name                   | Metamitron | Not readily biodegradable | OECD 301 D |

#### 12.3. Bioaccumulative potential

##### Partition coefficient

| Values                          | Method     | Remarks       |
| (n-octanol/water) Log Pow       |            |               |
| Chemical name                   | Metamitron | 0.85          | OECD 107   |

##### Bioconcentration factor (BCF)

| Chemical name                   | Metamitron | No data available |

#### 12.4. Mobility in soil

##### Adsorption/desorption

| Values                          | Method     | Remarks |
| Chemical name                   | Metamitron | 122.3    | Koc      |

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

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

#### 12.6. Other adverse effects

No information available.

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

- **Waste from residues/unused products**
  - Disposal should be in accordance with applicable regional, national and local laws and regulations.

- **Contaminated packaging**
  - Improper disposal or reuse of this container may be dangerous and illegal.

- **Other Information**
  - Waste codes should be assigned by the user based on the application for which the product was used.
SECTION 14: TRANSPORTATION INFORMATION

IMDG/IMO
14.1 UN/ID No. 3082
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron)
14.3 Hazard class 9
14.4 Packing group III
14.5 Marine pollutant Yes
14.6 Special precautions for user

RID/ADR
14.1 UN/ID No. 3082
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron)
14.3 Hazard class 9
14.4 Packing group III
14.5 Environmental hazard Yes
14.6 Special precautions for user

ICAO/IATA
14.1 UN/ID No. 3082
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron)
14.3 Hazard class 9
14.4 Packing group III
14.5 Environmental hazard Yes
14.6 Special precautions for user
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
15.2. Chemical safety assessment
A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.

SECTION 16: OTHER INFORMATION

Full text of R-phrases referred to under Sections 2 and 3.
R22 - Harmful if swallowed
R50 - Very toxic to aquatic organisms

Full text of H-statements referred to under Sections 2 and 3.
H302 - Harmful if swallowed
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Revision Note
*** - Change from previous version.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided in this Material 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 a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or 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.

End of Safety Data Sheet
SAFETY PRECAUTIONS

Operator Protection
UK only - Engineering control of operator exposure must be used where reasonably practicable, in addition to the following personal protective equipment:
WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate or handling contaminated surfaces.
UK only - However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.
TAKE OFF IMMEDIATELY all contaminated clothing.

Environmental Protection
Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.
Extreme care must be taken to avoid spray drift on to non-crop plants outside of the target area.

Storage and Disposal
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.
DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

IMPORTANT INFORMATION
FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL HERBICIDE

<table>
<thead>
<tr>
<th>Crop</th>
<th>Maximum individual dose (litres product/ha)</th>
<th>Maximum total dose (litres product/ha)</th>
<th>Latest time of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar beet, red beet, fodder beet and mangels</td>
<td>2.0</td>
<td>5.0</td>
<td>Before crop leaves meet between the rows.</td>
</tr>
</tbody>
</table>

Other specific restrictions:
The minimum interval between applications is 6 days.
Fodder beet and mangels must not be grazed by livestock or harvested for animal consumption until at least 32 days following the last application.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.