



SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Torero

Revision date 16-Jan-2024

Version 1 Supersedes Date: 16-Jan-2024

Product Code(s)

HRB05085-44

Print Date 16-Jan-2024

ADM.04701.H.1.A

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

1.1. Product identifier

Torero

Other means of identification

Pure substance/mixture

Mixture

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

Recommended use

Herbicide; Professional use

Uses advised against

No information available

1.3. Details of the supplier of the safety data sheet

Supplier

ADAMA Agricultural Solutions UK Ltd

Third Floor East

1410 Arlington Business Park

Theale

READING

RG7 4SA

Tel: 01635 860555

Fax: 01635 861555

For further information, please contact

E-mail address

ukenquiries@adama.com

1.4. Emergency telephone number

Emergency Telephone

National Chemical Emergency Centre (UK):Tel: 01865 407333 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Chronic aquatic toxicity

Category 2 - (H411)

2.2. Label elements

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

Hazard pictograms



| | |
|--------------------------------------|---|
| Signal word | None |
| Hazard statements | H411 - Toxic to aquatic life with long lasting effects |
| Precautionary Statements | P102 - Keep out of reach of children P391 - Collect spillage 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 (1,2-Benzisothiazolin-3-one). May produce an allergic reaction |
| Additional phrases for PPP | SP1 - 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). |

2.3. Other hazards

| | |
|--|--|
| PBT & vPvB | The product does not contain any substance(s) classified as PBT or vPvB. |
| Endocrine Disruptor Information | None known. |
| Persistent Organic Pollutants | Not applicable. |

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

| Chemical name | CAS No | EC No | Index No | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | REACH Registration Number |
|---|------------|-----------|--------------|----------|---|------------------------------------|------------|---------------------------|
| Metamitron | 41394-05-2 | 255-349-3 | 613-129-00-8 | 29 - 33 | Acute tox. 4 (H302) Aquatic Acute 1 (H400) | | M=1 | No data available |
| Ethofumesate | 26225-79-6 | 247-525-3 | 607-314-00-2 | 11 - 15 | Aquatic Acute 1 (H400) Aquatic Chronic 1(H410) | | M=1 M=1 | No data available |
| Poly(oxy-1,2-ethanediy l), .alpha.-[tris(1-phenylethyl)phenyl]-.omega.-hydroxy- | 99734-09-5 | - | | < 2 | Aquatic Chronic 3 (H412) | | | No data available |
| 1,2-Benzisothiazolin-3- | 2634-33-5 | 220-120-9 | 613-088-00-6 | < 0.03 | Skin Irrit. 2 | Skin Sens. 1 :: | | 01-212076154 |

| | | | | | | | | |
|-----|--|--|--|--|---|----------|--|-----------|
| one | | | | | (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) | C>=0.05% | | 0-60-XXXX |
|-----|--|--|--|--|---|----------|--|-----------|

Acute toxicity estimates (ATEs) according to Part 3 of Annex VI to Regulation (EC) No 1272/2008 are indicated in this table, if available

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 if you feel unwell, seek medical advice immediately (show the label where possible). First aider: Pay attention to self-protection. |
| Inhalation | Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a doctor. |
| 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 doctor. |
| Skin contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a doctor if necessary. |
| Ingestion | Rinse mouth. Drink plenty of water. Get medical attention immediately if symptoms occur. |
| 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 doctors | Treat symptomatically. |
|------------------------|------------------------|

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|---------------------------------------|---|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. |

5.2. Special hazards arising from the substance or mixture

| | |
|---|---------------------------|
| Specific hazards arising from the chemical | No information available. |
|---|---------------------------|

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

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

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

| Chemical name | United Kingdom |
|-----------------------------|--|
| Propane-1,2-diol 57-55-6 | TWA: 150 ppm TWA: 474 mg/m ³ TWA: 10 mg/m ³ STEL: 450 ppm |

| | |
|-------------------------------|--|
| | STEL: 1422 mg/m ³ STEL: 30 mg/m ³ |
| Sodium hydroxide 1310-73-2 | STEL: 2 mg/m ³ |

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.

Hand protection Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

Skin and body protection Use suitable protective clothing and equipment if required, such as safety goggles certified to EN 166, gloves certified to EN 374, protective boots certified to EN 13832, and/or a water repellent woven coverall with 65% polyester and 35 % cotton.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| <u>Property</u> | <u>Values</u> | <u>Method</u> | <u>Remarks</u> |
|--|------------------------------|---------------|--|
| Appearance | | | |
| Physical state | : Liquid | | |
| Colour | : white - pinkish | | |
| Odour | : sour | | |
| Odour threshold | : No data available | | |
| pH | : 5.9-6.9 | CIPAC MT 75 | solution (1%) |
| Melting point / freezing point °C | : ---- | | Not applicable |
| Boiling point / boiling range °C | : ---- | | Not applicable |
| Flash point °C | : >104 | EEC A.9 | |
| Evaporation rate | : No data available | | |
| Flammability (solid, gas) | : Not applicable for liquids | | |
| Upper/lower flammability or explosive limits | : No data available | | |
| Vapour pressure kPa | : ---- | | Not applicable |
| Vapour density | : No data available | | |
| Relative density | : 1.09 - 1.19 | OECD 109 | 20 °C |
| Solubility(ies) mg/l | : ---- | | Not applicable |
| Partition coefficient Log Pow | : | | See Section 12 for additional Ecological Information |
| Autoignition temperature °C | : 485 | EEC A.15 | |
| Decomposition temperature °C | : ---- | | No data available |
| Kinematic viscosity mm ² /s 40 °C | : 61.4 | OECD 114 | |

| | | | |
|-----------------|------------------|---------|------|
| Surface tension | : 39.3 | EEC A.5 | 20°C |
| Particle Size | : Not applicable | | |

9.2. Other information

Bulk density g/ml : ----

9.2.1. Information with regards to physical hazard classes

Explosive properties : Not an explosive
Oxidising properties : Not oxidizing

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

| | <u>Values</u> | <u>Species</u> | <u>Method</u> | <u>Remarks</u> |
|-----------------------------------|------------------------------|----------------|---------------|----------------------------------|
| Oral LD50 mg/kg | : > 2000 | Rat | OECD 423 | Maximum attainable concentration |
| Dermal LD50 mg/kg | : > 4000 | Rat | OECD 402 | |
| Inhalation LC50 mg/l | : > 1.46 | Rat | OECD 403 | |
| Skin corrosion/irritation | : Non-irritating to the skin | Rabbit | OECD 404 | |
| Serious eye damage/eye irritation | : Not irritating to eyes | Rabbit | OECD 405 | |
| Sensitisation | : Not a skin sensitiser | Guinea pig | OECD 406 | |

Chronic toxicity**Germ cell mutagenicity****Chemical name**

Metamitron : Not classified
 Ethofumesate : Not classified

Carcinogenicity**Chemical name**

Metamitron : Not Carcinogenic
 Ethofumesate : Not Carcinogenic

Reproductive toxicity**Chemical name**

Metamitron : Not toxic for the reproductive system
 Ethofumesate : Not toxic for the reproductive system

STOT - Single Exposure**Chemical name**

Metamitron : Not classified
 Ethofumesate : Not classified

STOT - Repeated Exposure**Chemical name**

Metamitron : Not classified
 Ethofumesate : Not classified

Aspiration hazard**Chemical name**

Metamitron : Not classified
 Ethofumesate : Not classified

11.2. Information on other hazards**11.2.1. Endocrine disrupting properties**

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information**12.1. Toxicity**

| <u>Acute toxicity</u> | <u>Values</u> | <u>Species</u> | <u>Method</u> | <u>Remarks</u> |
|--|----------------------|-------------------------|----------------------|-----------------------|
| Fish 96-hour LC50 mg/l | : 141 | Oncorhynchus mykiss | OECD 203 | |
| Crustacea 48-hour EC50 mg/l | : 62.4 | Daphnia magna | OECD 202 | |
| Algae 72-hour EC50 mg/l | : 2.83 | Scenedesmus subspicatus | OECD 201 | |
| Other plants EC50 mg/l | : 4.36 | Lemna gibba | OECD 221 | 7 days |
| <u>Chronic aquatic toxicity</u> | <u>Values</u> | <u>Species</u> | <u>Method</u> | <u>Remarks</u> |
| Fish NOEC mg/l | : --- | | | No data available |
| Crustacea NOEC mg/l | : --- | | | No data available |
| Algae NOEC mg/l | : 2.92 | Scenedesmus subspicatus | OECD 201 | |
| Other plants NOEC mg/l | : 0.305 | Lemna gibba | OECD 221 | 7 days |

Terrestrial Toxicity**Birds Oral LD50 mg/kg****Chemical name**

| | | | | |
|--------------|----------|------------------|----------|----|
| Metamitron | : 1302 | Japanese quail | OECD 401 | |
| Ethofumesate | : > 2000 | A. platyrhynchos | OECD 401 | .? |

Bees Oral LD50 µg/bee**Chemical name**

| | | | | |
|--------------|----------|----------------|----------|--|
| Metamitron | : > 97.2 | | OECD 213 | |
| Ethofumesate | : > 50 | Apis mellifera | OECD 213 | |

12.2. Persistence and degradability**Abiotic Degradation****Water DT50 days****Chemical name**

| | | | |
|--------------|--------------|-------------|------------------|
| Metamitron | : 8.4 - 49.8 | BBA IV: 5-1 | pH 5-8.04, 20 °C |
| Ethofumesate | : 208 | | |

Soil DT50 days**Chemical name**

| | | |
|--------------|--------------|------------|
| Metamitron | : 3.3 - 36.7 | pH 5.1-7.5 |
| Ethofumesate | : 37.8 | Field |

Biodegradation**Chemical name**

| | | |
|--------------|-----------------------------|------------|
| Metamitron | : Not readily biodegradable | OECD 301 D |
| Ethofumesate | : Not readily biodegradable | |

12.3. Bioaccumulative potential**Partition Coefficient****(n-octanol/water) Log Pow****Chemical name**

| | <u>Values</u> | <u>Method</u> | <u>Remarks</u> |
|--------------|---------------|---------------|----------------|
| Metamitron | : 0.85 | OECD 107 | |
| Ethofumesate | : 2.7 | OECD 107 | |

Bioconcentration factor (BCF)**Chemical name**

| | | |
|--------------|--------|-------------------|
| Metamitron | : ---- | No data available |
| Ethofumesate | : ---- | No data available |

12.4. Mobility in soil**Adsorption/Desorption****Chemical name**

| | <u>Values</u> | <u>Method</u> | <u>Remarks</u> |
|--------------|---------------|---------------|----------------|
| Metamitron | : 112.8 | | KOC |
| Ethofumesate | : 118 | | 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. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

| | |
|--|---|
| Waste from residues/unused products | Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local 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: Transport information

ADR

| | |
|---|---|
| 14.1 UN number | UN3082 |
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron, Ethofumesate) |
| 14.3 Transport hazard class(es) | 9 |
| 14.4 Packing group | III |
| Description | UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron, Ethofumesate), 9, III, (-) |
| 14.5 Environmental hazard | Yes |
| 14.6 Special Precautions for Users | |
| Special Provisions | 274, 335, 601, 375 |
| Classification code | M6 |
| Tunnel restriction code | (-) |

RID

| | |
|---|--|
| 14.1 UN number | UN3082 |
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron, Ethofumesate) |
| 14.3 Transport hazard class(es) | 9 |
| 14.4 Packing group | III |
| Description | UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron, Ethofumesate), 9, III |
| Environmental hazard | Yes |
| Special Precautions for Users | |
| 14.5 Environmental hazard | Yes |
| 14.6 Special Precautions for Users | |
| Special Provisions | 274, 335, 375, 601 |
| Classification code | M6 |

IMDG

| | |
|---|--|
| 14.1 UN number | UN3082 |
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron, Ethofumesate) |
| 14.3 Transport hazard class(es) | 9 |
| 14.4 Packing group | III |
| Description | UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron, Ethofumesate), 9, III, Marine pollutant |
| 14.5 Environmental hazard | Yes |
| 14.6 Special Precautions for Users | |
| 14.5 Marine pollutant | P |
| Environmental hazard | Yes |
| 14.6 Special Precautions for Users | |
| Special Provisions | 274, 335, 969 |
| EmS-No | F-A, S-F |
| IMDG Stowage and segregation | Category A No information available |
| 14.7 Maritime transport in bulk according to IMO instruments | No information available |

IATA

| | |
|-------------------------------------|--|
| 14.1 UN number | UN3082 |
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron, |

| | |
|------------------------------------|---|
| 14.3 Transport hazard class(es) | Ethofumesate) |
| 14.4 Packing group | 9 |
| Description | III |
| 14.5 Environmental hazard | UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| 14.6 Special Precautions for Users | (Metamitron, Ethofumesate), 9, III |
| Special Provisions | Yes |
| ERG Code | A97, A158, A197 |
| | 9L |



* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids

SECTION 15: Regulatory information

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

| Trade name / designation | Registration Number(s) | Date |
|--------------------------|------------------------|----------------|
| Not Applicable | Not Applicable | Not Applicable |

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

15.2. Chemical safety assessment

| | |
|------------------------|--|
| Chemical Safety Report | A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009 |
|------------------------|--|

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| | | | |
|---------|-----------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | * | Skin designation |

Revision date 16-Jan-2024

Reason for revision**Abbreviations and acronyms**

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS Number - Chemical Abstracts Service number
EC Number - EINECS and ELINCS Number
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic substance
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT - Specific Target Organ Toxicity
vPvB - Very Persistent and Very Bioaccumulative

Classification according to Regulation (EC) No. 1272/2008 [CLP]**Classification of the mixture**

H411 - Toxic to aquatic life with long lasting effects

Classification procedure

Classification based on test data

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

Disclaimer

The information provided in this 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