



SAFETY DATA SHEET

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

Torero

Revision date 25-Jan-2023

Version 2 Supersedes Date: 25-Jan-2023

Product Code(s)

HRB01010-44

Print Date 25-Jan-2023

FSG 01095 H

23061

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]

Not Hazardous

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 Not Hazardous	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	EUH208 - Contains (1,2-Benzisothiazolin-3-one). May produce an allergic reaction EUH401 - To avoid risks to human health and the environment, comply with the instructions for use
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-phenylet hyl)phenyl]-.omega.-hydroxy-	99734-09-5	-		< 2	Aquatic Chronic 3 (H412)			No data available

1,2-Benzisothiazolin-3-one	2634-33-5	220-120-9	613-088-00-6	< 0.03	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Acute Tox. 4 (H302) Aquatic Acute 1 (H400)	Skin Sens. 1 :: C>=0.05%		01-212076154 0-60-XXXX
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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

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and water.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

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

Symptoms	None known.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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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.
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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.
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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 to beige		
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 mm²/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				
<u>Chemical name</u>				
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

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, 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**

A97, A158, A197

ERG Code

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	25-Jan-2023
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Reason for revision	SDS sections updated
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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