SAFETY DATA SHEET

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

Tribal

Revision date 21-Sep-2022 **Version** 2 **Supersedes Date:** 28-Apr-2022 **Product Code(s)** HRB00863-44

Print Date 21-Sep-2022 ADM.02253.H.1.A 12746

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

1.1. Product identifier

Tribal

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]

Carcinogenicity	Category 2 - (H351)
Reproductive toxicity	Category 2 - (H361d)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements

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

Contains Pendimethalin, Chlorotoluron

Hazard pictograms

Signal word	Warning
Hazard statements	H351 - Suspected of causing cancer H361d - Suspected of damaging the unborn child H410 - Very toxic to aquatic life with long lasting effects
Precautionary Statements	P102 - Keep out of reach of children P201 - Obtain special instructions before use P280 - Wear protective gloves/protective clothing/eye protection/face protection 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
Pendimethalin	40487-42-1	254-938-2	609-042-00-X	24-28	Repr. 2 (H361d) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		M = 100 M = 10	No data available
Chlorotoluron	15545-48-9	239-592-2	616-105-00-5	19-24	Carc. 2 (H351)			No data

					Repr. 2 (H361d) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		M=10 M=1	available
Poly(oxy-1,2-ethanediyl), .alpha.-[tris(1-phenylethyl)phenyl]-.omega.-hydroxy-	99734-09-5	-		3-6	Aquatic Chronic 3 (H412)			No data available
Diflufenican	83164-33-4	617-446-2	616-032-00-9	2-5	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		M=10000 M=1000	No data available
1,2-Benzisothiazolin-3-one	2634-33-5	220-120-9	613-088-00-6	< 0.05	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%		01-2120761540-60-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. If symptoms persist, call a doctor.

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.
Other information	Refer to protective measures listed in Sections 7 and 8.
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	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.
General hygiene considerations	Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up. Keep at a temperature not exceeding 35 °C.

7.3. Specific end use(s)

Identified uses
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
Glycerol 56-81-5	TWA: 10 mg/m³ STEL: 30 mg/m³
Sodium hydroxide 1310-73-2	STEL: 2 mg/m³

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 Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

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

Property		Values	Method	Remarks
Appearance				
Physical state	:	Liquid		
Colour	:	yellow-orange		
Odour	:	Organic		
Odour threshold	:	No data available		
pH	:	5 - 7	CIPAC MT 75.3	solution (1%)

Melting point / freezing point °C	:	No data available	
Boiling point / boiling range °C	:	No data available	
Flash point °C	:	> 100	EEC A.9
Evaporation rate	:	----	
Flammability (solid, gas)	:	Not applicable for liquids	
Upper/lower flammability or explosive limits	:	No data available	
Vapour pressure kPa	:	No data available	
Vapour density	:	No data available	
Relative density	:	1.1-1.2	EEC A.3
Solubility(ies) mg/l	:	No data available	
Partition coefficient Log Pow	:		See Section 12 for additional Ecological Information
Autoignition temperature °C	:	425	EEC A.15
Decomposition temperature °C	:	No data available	
Kinematic viscosity mm2/s 40 °C	:	0.144 - 5.2	OECD 114
Surface tension	:	36.8	EEC A.5
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

		Values	Species	Method	Remarks
Oral LD50 mg/kg	:	> 2000	Rat	OECD 423	
Dermal LD50 mg/kg	:	> 2000	Rat	OECD 402	
Inhalation LC50 mg/l	:	----			No data available
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	
Pendimethalin	: Not classified
Chlorotoluron	: Not classified
Diflufenican	: Not classified

Carcinogenicity .

Chemical name	
Pendimethalin	: Not Carcinogenic
Chlorotoluron	: Suspected of causing cancer
Diflufenican	: Not Carcinogenic

Reproductive toxicity .

Chemical name	
Pendimethalin	: H361d - Suspected of damaging the unborn child
Chlorotoluron	: Suspected of damaging fertility or the unborn child
Diflufenican	: Not toxic for the reproductive system

STOT - Single Exposure

Chemical name	
Pendimethalin	: No data available
Chlorotoluron	: Not classified
Diflufenican	: No data available

STOT - Repeated Exposure

Chemical name	
Pendimethalin	: No data available
Chlorotoluron	: Not classified
Diflufenican	: No data available

Aspiration hazard

Chemical name	
Pendimethalin	: No data available
Chlorotoluron	: Not classified
Diflufenican	: No data available

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

Acute toxicity		Values	Species	Method	Remarks
Fish 96-hour LC50 mg/l	:	5.91	Oncorhynchus mykiss	OECD 203	
Crustacea 48-hour EC50 mg/l	:	89.7	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	:	0.0277	D. Subspicatus	OECD 201	
Other plants EC50 mg/l	:	1.79	M. spicatum		14 days

Chronic aquatic toxicity		Values	Species	Method	Remarks
Fish NOEC mg/l	:	2.9	Rainbow trout	OECD 203	
Crustacea NOEC mg/l	:	25.8	Daphnia magna	OECD 202	
Algae NOEC mg/l	:	0.00128	D. Subspicatus	OECD 201	
Other plants NOEC mg/l	:	0.455	Myriophyllum spicatum		

Terrestrial Toxicity

Birds Oral LD50 mg/kg

Chemical name				
Pendimethalin	:	1421	Mallard duck	
Chlorotoluron	:	272	Japanese quail	EPA-FIFRA 71-1
Diflufenican	:	> 2150	Bobwhite quail	

Bees Oral LD50 µg/bee

Chemical name				
Pendimethalin	:	> 101.2		EPPO 170
Chlorotoluron	:	> 20		
Diflufenican	:	> 100	Apis mellifera	EPPO 170

12.2. Persistence and degradability

Abiotic Degradation

Water DT50 days

Chemical name				
Pendimethalin	:	31.8		
Chlorotoluron	:	> 200		pH 7; 30 ◦ C
Diflufenican	:	1-5	BBA IV: 5-1	

Soil DT50 days

Chemical name				
Pendimethalin	:	182	SETAC	
Chlorotoluron	:	8.5 - 92.5		
Diflufenican	:	128	EPA / SETAC	

Biodegradation

Chemical name				
Pendimethalin	:	No information available		
Chlorotoluron	:	Not readily biodegradable	OECD 301 B	
Diflufenican	:	No information available		

12.3. Bioaccumulative potential

Partition Coefficient (n-octanol/water) Log Pow Chemical name		Values	Method	Remarks
Pendimethalin	:	5.4	EEC A.8	
Chlorotoluron	:	2.5	OECD 107	
Diflufenican	:	4.2	OECD 117	

Bioconcentration factor (BCF)

Chemical name			
Pendimethalin	:	1536	
Chlorotoluron	:		No data available

Diflufenican	: 1276 - 1596	OECD 305	

12.4. Mobility in soil

Adsorption/Desorption Chemical name	Values	Method	Remarks
Pendimethalin	: 13792		KOC
Chlorotoluron	: 108 - 384	OECD 106	KOC
Diflufenican	: 3417		KOC

Endocrine Disruptor Information

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 in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

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. (Pendimethalin, Chlorotoluron)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Pendimethalin, Chlorotoluron), 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. (Pendimethalin, Chlorotoluron)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Pendimethalin, Chlorotoluron), 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. (Pendimethalin, Chlorotoluron)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Pendimethalin, Chlorotoluron), 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. (Pendimethalin, Chlorotoluron)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Pendimethalin, Chlorotoluron), 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
H351 - Suspected of causing cancer
H361d - Suspected of damaging the unborn child
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 21-Sep-2022

Reason for revision SDS sections updated

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	Classification procedure
H351 - Suspected of causing cancer	Classification based on Calculation method

H361d - Suspected of damaging the unborn child	Classification based on Calculation method
H400 - Very toxic to aquatic life	Classification based on test data
H410 - Very toxic to aquatic life with long lasting effects	Classification based on Calculation method

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