



# SAFETY DATA SHEET

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

## Legion

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Version 1

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AG-QM2-500 SC 22024

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

#### Legion

Pure substance/mixture Mixture

### 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  
Third Floor East  
1410 Arlington Business Park  
Theale  
READING  
RG7 4SA  
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)  
National Poisons Information Centre (Republic of Ireland)  
Tel: 01 809 2166 (8am – 10pm 7 days a week)

## 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)  
Acute aquatic toxicity Category 1 - (H400)  
Hazardous to the Aquatic Category 1 - (H410)

Environment - Chronic Hazard

2.2. Label elements

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

Hazard pictograms



Signal word

Warning

Hazard Statements

H351 - Suspected of causing cancer  
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 Metazachlor AND 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

No information available

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

3.2 Mixture

Chemical Name	Weight-%	CAS No	EC No	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	M-Factor	REACH Registration Number
Metazachlor (ISO)	31-35	67129-08-2	266-583-0	616-205-00-9	Skin Sens. 1B (H317) Carc. 2 (H351) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=100 M=100	-
Quinmerac (ISO)	9-13	90717-03-6	402-790-6	-	Aquatic Chronic 3 (H412)		-
Propylene Glycol	3-6	57-55-6	200-338-0	-	-		-
1,2-Benzisothiazolin-3-one	< 0.5	2634-33-5	220-120-9	613-088-00-6	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400)		-

Full text of H- and EUH-phrases: see section 16

**Section 4: FIRST AID MEASURES**

#### 4.1. Description of first aid measures

<b>General advice</b>	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!.
<b>Inhalation</b>	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.
<b>Eye contact</b>	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.
<b>Ingestion</b>	Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.
<b>Self-protection of the first aider</b>	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 5: FIRE-FIGHTING MEASURES**

#### 5.1. Extinguishing media

##### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### **Unsuitable Extinguishing Media**

No information available.

#### 5.2. Special hazards arising from the substance or mixture

No specific hazard known.

#### 5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus  
In the event of fire and/or explosion do not breathe fumes.

### **Section 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### **Personal precautions**

Avoid contact with skin, eyes or clothing. 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

Take up mechanically, placing in appropriate containers for disposal.

### 6.4. Reference to other sections

#### Other Information

See also section 8,13

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### Advice on safe handling

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

#### General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place.

### 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

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Propylene Glycol 57-55-6		STEL: 450 ppm STEL: 1422 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> TWA: 150 ppm TWA: 474 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>			
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Propylene Glycol 57-55-6				TWA: 25 ppm TWA: 79 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 118.5 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 470 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>

### 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).

##### 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** When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

**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

Property	Values	Method	Remarks
<b>Appearance</b>			
Physical state	: Liquid		
Color	: beige		
Odor	: characteristic		
Odor threshold	: No data available		
pH	: 3.3 - 4.3	CIPAC MT 75.3	solution (1 %)
Melting point/freezing point °C	: ----		Not Applicable
Boiling point/boiling range °C	: No data available		
Flash point °C	: > 230	EEC A.9	Maximum limit value
Evaporation rate	: Not Applicable		
Flammability (solid, gas)	: Not applicable for liquids		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: ----		Not Applicable
Vapor density	: No data available		
Relative density	: 1.09 - 1.19	CIPAC MT 3.3	20 °C
Solubility(ies) mg/l	: ----		Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
Autoignition temperature °C	: 605	EEC A.15	
Decomposition temperature °C	: No data available		
Kinematic viscosity mm <sup>2</sup> /s 40 °C	: 142.23	OECD 114	
Explosive properties	: Not an explosive		
Oxidizing properties	: Not oxidizing		

### 9.2. Other information

Bulk density g/ml	: ----		Not Applicable
Surface tension mN/m	: 40.3	OECD 115	20°C

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data 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**

None under normal use conditions.

**Section 11: TOXICOLOGY INFORMATION**

**11.1. Information on toxicological effects**

**Acute toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: > 2000	Rat	OECD 423	
Dermal LD50 mg/kg	: > 2000	Rat	OECD 402	
Inhalation LC50 mg/l/4h	:			Not Applicable
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Not irritating to eyes	Rabbit	OECD 405	
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

**Chronic toxicity**

**Germ cell mutagenicity**

<u>Chemical Name</u>	
Metazachlor (ISO)	: Not classified
Quinmerac (ISO)	: Not classified

**Carcinogenicity**

<u>Chemical Name</u>	
Metazachlor (ISO)	: Suspected of causing cancer
Quinmerac (ISO)	: Not Carcinogenic

**Reproductive toxicity**

<u>Chemical Name</u>	
Metazachlor (ISO)	: Not toxic for the reproductive system
Quinmerac (ISO)	: Not toxic for the reproductive system

**STOT - single exposure**

<u>Chemical Name</u>	
Metazachlor (ISO)	: No data available
Quinmerac (ISO)	: Not available

**STOT - repeated exposure**

<u>Chemical Name</u>	
Metazachlor (ISO)	: No data available
Quinmerac (ISO)	: Not available

**Aspiration hazard**

<u>Chemical Name</u>	
Metazachlor (ISO)	: No data available
Quinmerac (ISO)	: Not available

**Section 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity**

**Aquatic toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
<b>Acute toxicity</b>				
Fish 96-hour LC50 mg/l	: 12.7	Oncorhynchus mykiss	OECD 203	
Crustacea 48-hour EC50 mg/l	: 83	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 0.0767	P. subcapitata	OECD 201	
Other plants EC50 mg/l	: 0.0561	Lemna gibba	OECD 221	7 days
<b>Chronic aquatic toxicity</b>				
Fish NOEC mg/l	: No data available			
Crustacea NOEC mg/l	: No data available			
Algae NOEC mg/l	: 0.01	P.subcapitata	OECD 201	
Other plants NOEC mg/l	: 0.0032	Lemna gibba	OECD 221	7 days
<b>Terrestrial Toxicity</b>				
<b>Birds Oral LD50 mg/kg</b>				
<b>Chemical Name</b>				
Metazachlor (ISO)	: > 2000			
Quinmerac (ISO)	: > 2000	Bobwhite quail		
<b>Bees Oral LD50 µg/bee</b>				
<b>Chemical Name</b>				
Metazachlor (ISO)	: > 72		EPPO 170	
Quinmerac (ISO)	: > 108.51			
<b>12.2. Persistence and degradability</b>				
<b>Abiotic Degradation</b>				
<b>Water DT50 days</b>				
<b>Chemical Name</b>				
Metazachlor (ISO)	: 137.6		BBA IV 4-1	pH 5.5-7.1
Quinmerac (ISO)	: ----		OECD 111	Stable; pH 4,7,9
<b>Soil DT50 days</b>				
<b>Chemical Name</b>				
Metazachlor (ISO)	: 10.8		BBA IV: 5-1	pH 5.7-7.2
Quinmerac (ISO)	: 10.5			Field
<b>Biodegradation</b>				
<b>Chemical Name</b>				
Metazachlor (ISO)	: Not readily biodegradable			
Quinmerac (ISO)	: Not readily biodegradable			
<b>12.3. Bioaccumulative potential</b>				
<b>Partition Coefficient</b>				
<b>(n-octanol/water) Log Pow</b>				
<b>Chemical Name</b>				
Metazachlor (ISO)	: 2.5			pH 7, 22 ° C
Quinmerac (ISO)	: </= -0.2		OECD 117	pH 7
<b>Bioconcentration factor (BCF)</b>				
<b>Chemical Name</b>				
Metazachlor (ISO)	:			Low
Quinmerac (ISO)	: ----			No data available
<b>12.4. Mobility in soil</b>				
<b>Adsorption/Desorption</b>				
<b>Chemical Name</b>				
Metazachlor (ISO)	: 110		OECD 106	KOC
Quinmerac (ISO)	: 0.82			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**

<b>Waste from residues/unused products</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Improper disposal or reuse of this container may be dangerous and illegal.
<b>Other Information</b>	Waste codes should be assigned by the user based on the application for which the product was used.

**Section 14: TRANSPORTATION INFORMATION**

**IMDG/IMO**

<b>14.1 UN/ID No *</b>	3082
<b>14.2 Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Metazachlor )
<b>14.3 Hazard Class</b>	9
<b>14.4 Packing Group</b>	III
<b>14.5 Marine pollutant</b>	Yes
<b>14.6 Special precautions for user</b>	

**RID/ADR**

<b>14.1 UN/ID No *</b>	3082
<b>14.2 Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Metazachlor )
<b>14.3 Hazard Class</b>	9
<b>14.4 Packing Group</b>	III
<b>14.5 Environmental hazard</b>	Yes
<b>14.6 Special precautions for user</b>	
<b>14.7 Tunnel restriction code</b>	-

**ICAO/IATA**

<b>14.1 UN/ID No *</b>	3082
<b>14.2 Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Metazachlor )
<b>14.3 Hazard Class</b>	9
<b>14.4 Packing Group</b>	III
<b>14.5 Environmental hazard</b>	Yes
<b>14.6 Special precautions for user</b>	
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not Applicable



\* 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	Registration number	Registration date
Not Applicable	Not Applicable	Not Applicable

### 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 H-Statements referred to under sections 2 and 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 if inhaled  
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

### List of 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

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

**Revision Note** Changes made to the last version are labeled with this sign \*\*\*.

### Process of classification evaluation in accordance with CLP regulation.

#### Classification of the mixture

H351 - Suspected of causing cancer  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects

#### Classification procedure

Classification based on Calculation method  
Classification based on test data  
Classification based on test data

### 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