



# SAFETY DATA SHEET

## Seizer 100 EC

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Version 1

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

### Product identifier

#### Seizer 100 EC

Synonyms	Bifenthrin 100 EC
Pure substance/mixture	Mixture
Formula	EC

### Relevant identified uses of the substance or mixture and uses advised against

Recommended Use	Insecticide
Uses advised against	No information available

### Details of the supplier of the safety data sheet

Supplier Address	ADAMA SOUTH AFRICA (PTY) LTD Ground Floor, Simeka House The Vineyards Office Estate 99 Jip de Jager Drive Bellville 7530
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For further information, please contact

Email address	SDS@ADAMA.COM
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### Emergency Telephone

Emergency Telephone	+ 27 82 446 8946 + 27 86 155 5777 + 27 21 982 1460
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## Section 2: HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Aspiration toxicity	Category 1 - (H304)
Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

Flammable liquids

Category 4 - (H227)

**Label Elements**

**Hazard pictograms**



**Signal word**

Danger

**Hazard Statements**

H227 - Combustible liquid  
 H302 - Harmful if swallowed  
 H304 - May be fatal if swallowed and enters airways  
 H315 - Causes skin irritation  
 H318 - Causes serious eye damage  
 H336 - May cause drowsiness or dizziness  
 H373 - May cause damage to organs through prolonged or repeated exposure  
 H410 - Very toxic to aquatic life with long lasting effects

**Precautionary Statements**

P102 - Keep out of reach of children  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
 P243 - Take precautionary measures against static discharge  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P270 - Do not eat, drink or smoke when using this product  
 P280 - Wear protective gloves and eye/face protection  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P331 - Do NOT induce vomiting  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P501 - Dispose of contents/ container to an approved waste disposal plant

**Other Hazards**

No information available

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

**Mixture**

Chemical Name	Weight-%	CAS No	EC No	GHS Classification	M-Factor
Bifenthrin	9-12	82657-04-3		Acute Tox. 3 (H301) Acute Tox. 3 (H331) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=10000 M=100000
Solvent naphtha, petroleum, heavy arom.	76-85	64742-94-5	265-198-5	Asp. Tox. 1 (H304) STOT SE 3 (H336) Aquatic Chronic 2 (H411)	
Benzenesulfonic acid, C10-13-(linear)alkyl derivs., calcium salt	2-4	N/A	932-231-6	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	
2-Ethylhexan-1-ol	1-3	104-76-7	203-234-3	Acute Tox. 4 (H332)	

				Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	
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Full text of H- and EUH-phrases: see section 16

## Section 4: FIRST AID MEASURES

### 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>	Do NOT induce vomiting. 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.

### Most important symptoms and effects, both acute and delayed

**Symptoms** None known.

### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

## Section 5: FIRE-FIGHTING MEASURES

### Extinguishing media

#### **Suitable Extinguishing Media**

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

#### **Unsuitable Extinguishing Media**

No information available.

### Special hazards arising from the substance or mixture

Combustible material.

### 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

### 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.

**Environmental precautions**

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

**Methods and material for containment and cleaning up**

**Methods for cleaning up**

Take up mechanically, placing in appropriate containers for disposal.

**Reference to other sections**

**Other Information**

See also section 8,13

**Section 7: HANDLING AND STORAGE**

**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/fume/gas/mist/vapors/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.

**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.

**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**

**National occupational exposure limits**

Chemical Name	European Union	United Kingdom	France	Spain	Germany
2-Ethylhexan-1-ol 104-76-7					TWA: 10 ppm TWA: 54 mg/m <sup>3</sup> Ceiling / Peak: 10 ppm Ceiling / Peak: 54 mg/m <sup>3</sup> TWA: 20 ppm TWA: 110 mg/m <sup>3</sup>
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
2-Ethylhexan-1-ol 104-76-7	Skin STEL 100 ppm STEL 540 mg/m <sup>3</sup> TWA: 50 ppm TWA: 270 mg/m <sup>3</sup>	STEL: 20 ppm STEL: 110 mg/m <sup>3</sup> TWA: 20 ppm TWA: 110 mg/m <sup>3</sup>	STEL: 320 mg/m <sup>3</sup> TWA: 160 mg/m <sup>3</sup>		

**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** Use only with adequate ventilation.

**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**

**Physical and Chemical Properties**

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
<b>Appearance</b>			
Physical state	: liquid		
Color	: clear Yellowish		
Odor	: chemical		
<b>Odor threshold</b>	: No data available		
<b>pH</b>	: 5.2 - 6.2		solution (1 %)
<b>Melting point/freezing point °C</b>	: No data available		Not Applicable
<b>Boiling point/boiling range °C</b>	: No data available		
<b>Flash point °C</b>	: 67		
<b>Evaporation rate</b>	: -		No data available
<b>Flammability (solid, gas)</b>	: Not applicable for liquids		
<b>Upper/lower flammability or explosive limits</b>	: No data available		
<b>Vapor pressure kPa</b>	: No data available		Not Applicable
<b>Vapor density</b>	: No data available		
<b>Relative density</b>	: 0.88 - 0.98		
<b>Solubility(ies) mg/l</b>	: No data available		Not Applicable
<b>Partition Coefficient (n-octanol/water) Log Pow</b>	:		See Section 12 for more information
<b>Autoignition temperature °C</b>	: No data available		
<b>Decomposition temperature °C</b>	: No data available		
<b>Kinematic viscosity mm<sup>2</sup>/s 40 °C</b>	: 1.86		20°C
<b>Explosive properties</b>	: No data available		
<b>Oxidizing properties</b>	: No data available		
<b>Other Information</b>			
<b>Bulk density g/ml</b>	:		Not Applicable
<b>Surface tension mN/m</b>	: -		No data available

**Section 10: STABILITY AND REACTIVITY**

**Reactivity**

Not available.

**Chemical stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible Materials**

No information available

**Hazardous Decomposition Products**

None under normal use conditions.

**Section 11: TOXICOLOGY INFORMATION**

**Information on toxicological effects**

**Acute toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: 300 - 2000	Rat	OECD 423	
Dermal LD50 mg/kg	: > 4000	Rat	OECD 402	
Inhalation LC50 mg/l/4h	: > 5.25	Rat	OECD 403	
Skin corrosion/irritation	: Irritating to skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Serious eye damage/eye irritation	Rabbit	OECD 405	
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

**Chronic toxicity**

**Germ cell mutagenicity**

**Chemical Name**  
Bifenthrin : Not classified

**Carcinogenicity**

**Chemical Name**  
Bifenthrin : Not classified

**Reproductive toxicity**

**Chemical Name**  
Bifenthrin : Not classified

**STOT - single exposure**

**Chemical Name**  
Bifenthrin : No data available

**STOT - repeated exposure**

**Chemical Name**  
Bifenthrin : No data available

**Aspiration hazard**

Chemical Name  
Bifenthrin : No data available

**Section 12: ECOLOGICAL INFORMATION**

Toxicity

**Aquatic toxicity**

<b>Acute toxicity</b>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	: 0.031	Poecilia reticulata	OECD 203	
Crustacea 48-hour EC50 mg/l	:			No data available
Algae 72-hour EC50 mg/l	:			No data available
Other plants EC50 mg/l	:			No data available

<b>Chronic aquatic toxicity</b>	<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	: No data available			
Other plants NOEC mg/l	: No data available			

**Terrestrial Toxicity**

<b>Birds Oral LD50 mg/kg</b>				
Chemical Name				
Bifenthrin	: 1800	Bobwhite quail	EPA-OPPTS 850.2100	

**Bees Oral LD50 µg/bee**

Chemical Name				
Bifenthrin	: 0.39		OECD 213, OECD Oral 214	

Persistence and degradability

<b>Abiotic Degradation</b>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
<b>Water DT50 days</b>			
Chemical Name			
Bifenthrin	: 161.1		

<b>Soil DT50 days</b>			
Chemical Name			
Bifenthrin	: 86.8		Field

<b>Biodegradation</b>			
Chemical Name			
Bifenthrin	: No data available		

Bioaccumulative potential

<b>Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow</b>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical Name			
Bifenthrin	: > 6.71	OECD 107	

<b>Bioconcentration factor (BCF)</b>			
Chemical Name			
Bifenthrin	: 417	OECD 305	

Mobility in soil

<b>Adsorption/Desorption Chemical Name</b>	<b>Values</b>	<b>Method</b>	<b>Remarks</b>
Bifenthrin	: 236,610		KOC, Not mobile

**Results of PBT and vPvB assessment**

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

**Other adverse effects**

No information available.

**Section 13: DISPOSAL CONSIDERATIONS**

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

**RID/ADR**

<b>UN/ID No *</b>	3082
<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Bifenthrin )
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Environmental hazard</b>	Yes
<b>Special precautions for user</b>	

**ICAO/IATA**

<b>UN/ID No *</b>	3082
<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Bifenthrin )
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Environmental hazard</b>	Yes
<b>Special precautions for user</b>	
<b>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

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

## Section 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H227 - Combustible liquid  
H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H319 - Causes serious eye irritation  
H331 - Toxic if inhaled  
H332 - Harmful if inhaled  
H335 - May cause respiratory irritation  
H336 - May cause drowsiness or dizziness  
H373 - May cause damage to organs through prolonged or repeated exposure  
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

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

### 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

### 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