



SAFETY DATA SHEET

Bifenthrin 7.9 SC

Revision Date 26-Jun-2019

Version 2

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

Product identifier

Bifenthrin 7.9 SC

Synonyms

Admiral

Pure substance/mixture

Mixture

Formula

SC

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 Makhteshim Ltd
PO Box 60
Beer Sheva 8410001 Israel

For further information, please contact

Email address

SDS@ADAMA.COM

Emergency Telephone

Emergency Telephone

ADAMA Makhteshim: + 972 8 6560800/801 ; + 972 8 6296713/714
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Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Oral

Category 4 - (H302)

Acute toxicity - Inhalation (Dusts/Mists)

Category 3 - (H331)

Acute aquatic toxicity

Category 1 - (H400)

Chronic aquatic toxicity

Category 1 - (H410)

Label Elements

Hazard pictograms

**Signal word**

Danger

Hazard Statements

H302 - Harmful if swallowed
 H331 - Toxic if inhaled
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P270 - Do not eat, drink or smoke when using this product
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 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	6 - 10	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

Section 4: FIRST AID MEASURES

First aid measures**General advice**

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!.

Inhalation

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

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 physician.

Ingestion

Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

Self-protection of the first aider

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

No specific hazard known.

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. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

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. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

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. Use with local exhaust ventilation.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended. 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. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

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

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 Rubber boots, Apron, Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact, Gloves made of plastic or rubber.

Respiratory protection Use only with adequate ventilation.

General Hygiene Considerations When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended. 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>
Appearance			
Physical state	: Liquid		
Color	: opaque white		
Odor	: Faint characteristic		
Odor threshold	: No data available		
pH	: 4.8 - 4.9	EPA-OPPTS 830.7000	1 % aqueous solution
Melting point/freezing point °C	: -		Not Applicable

Boiling point/boiling range °C	:	No data available	
Flash point °C	:	No data available	
Evaporation rate	:	-	No data available
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	:	1.0 - 1.1	EPA-OPPTS 830.7300
Solubility(ies) mg/l	:	-	Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
Autoignition temperature °C	:	No data available	
Decomposition temperature °C	:	No data available	
Kinematic viscosity mm ² /s 40 °C	:	44.7 - 228.6	EPA-OPPTS 830.7100
Explosive properties	:	No data available	
Oxidizing properties	:	No data available	
Other Information			
Bulk density g/ml	:		Not Applicable
Surface tension mN/m	:	-	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	: 630	Rat	EPA-OPPTS 870.1100	
Dermal LD50 mg/kg	: > 2000	Rat	EPA-OPPTS 870.1200	
Inhalation LC50 mg/l/4h	: > 0.54	Rat	EPA-OPPTS 870.1300	

Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	EPA-OPPTS 870.2500
Serious eye damage/eye irritation	: Not irritating to eyes	Rabbit	EPA-OPPTS 870.2400
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	EPA-OPPTS 870.2600

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**

Acute toxicity	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	:			No data available
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

Chronic aquatic toxicity

	<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**Birds Oral LD50 mg/kg****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

Abiotic Degradation	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Water DT50 days			
Chemical Name			
Bifenthrin	: 161.1		
Soil DT50 days			
Chemical Name			
Bifenthrin	: 86.8		Field
Biodegradation			
Chemical Name			
Bifenthrin	: No data available		

Bioaccumulative potential

Partition Coefficient	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
(n-octanol/water) Partition			
Coefficient (n-octanol/water) Log			
Pow			
Chemical Name			
Bifenthrin	: > 6.71	OECD 107	
Bioconcentration factor (BCF)			
Chemical Name			
Bifenthrin	: 417	OECD 305	

Mobility in soil

Adsorption/Desorption	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical Name			
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

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and 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: TRANSPORTATION INFORMATION

IMDG/IMO

UN/ID No *

Proper shipping name

3352

PYRETHROID PESTICIDE, LIQUID, TOXIC (Bifenthrin)

Hazard Class 6.1
Packing Group III
Marine pollutant Yes
Special precautions for user

RID/ADR

UN/ID No * 3352
Proper shipping name PYRETHROID PESTICIDE, LIQUID, TOXIC (Bifenthrin)
Hazard Class 6.1
Packing Group III
Environmental hazard Yes
Special precautions for user

ICAO/IATA

UN/ID No * 3352
Proper shipping name PYRETHROID PESTICIDE, LIQUID, TOXIC (Bifenthrin)
Hazard Class 6.1
Packing Group III
Environmental hazard Yes
Special precautions for user
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not Applicable



(Bad file name)

* 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

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