SAFETY DATA SHEET

Rimon fast 100 SC

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

Product identifier

Rimon fast 100 SC
Synonyms Novaluron 50 Bifenthrin 50 SC
Pure substance/mixture Mixture

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

For further information, please contact

Email address SDS@ADAMA.COM

Emergency Telephone + 27 82 446 8946
+ 27 86 155 5777
+ 27 21 982 1460

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Oral Category 4 - (H302)
Acute aquatic toxicity Category 1 - (H400)
Chronic aquatic toxicity Category 1 - (H410)

Label Elements

Hazard pictograms
Signal word

Warning

Hazard Statements

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

Precautionary Statements

P102 - Keep out of reach of children
P270 - Do not eat, drink or smoke when using this product
P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Chemical Name</th>
<th>Weight-%</th>
<th>CAS No</th>
<th>EC No</th>
<th>GHS Classification</th>
<th>M-Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Novaluron</td>
<td>4 - 6</td>
<td>116714-46-6</td>
<td></td>
<td>Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)</td>
<td>M=1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M=100000</td>
<td>M=100000</td>
</tr>
<tr>
<td></td>
<td>Bifenthrin</td>
<td>4 - 6</td>
<td>82657-04-3</td>
<td></td>
<td>Acute Tox. 3 (H301) Acute Tox. 3 (H331) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)</td>
<td>M=100000</td>
</tr>
<tr>
<td></td>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-[tris(1-phenylethyl)phenoxy -, ammonium salt</td>
<td>1 - 2</td>
<td>119432-41-6</td>
<td></td>
<td>Aquatic Chronic 3 (H412)</td>
<td>M=1</td>
</tr>
</tbody>
</table>

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

Do NOT induce vomiting. 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 only with adequate ventilation.

For emergency responders
Use personal protection recommended in Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

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 only with adequate ventilation.
General Hygiene Considerations
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.

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
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
Do not eat, drink or smoke when using this product.

Environmental exposure controls
No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td>CIPAC MT 75</td>
<td>1 %; 22 °C</td>
</tr>
<tr>
<td>Color</td>
<td>white to light pink</td>
<td></td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Odor</td>
<td>characteristic</td>
<td>CIPAC MT 12</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
<td>CIPAC MT 12, CC (closed cup)</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>5.5 - 6.5</td>
<td>CIPAC MT 12</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>----</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point/bolling range</td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point °C</td>
<td>----</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>----</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable for liquids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>explosive limits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor pressure kPa</td>
<td>----</td>
<td></td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th></th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 mg/kg</td>
<td>310.2</td>
<td>Rat</td>
<td>OECD 425</td>
<td></td>
</tr>
<tr>
<td>Dermal LD50 mg/kg</td>
<td>&gt; 2000</td>
<td>Rat</td>
<td>OECD 402</td>
<td></td>
</tr>
<tr>
<td>Inhalation LC50 mg/l/4h</td>
<td>&gt; 1.54</td>
<td>Rat</td>
<td>OECD 403</td>
<td>Maximum attainable concentration</td>
</tr>
</tbody>
</table>

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

- Weak Skin sensitizer (Guinea pig, OECD 406, (M&K test))

Chronic toxicity

Germ cell mutagenicity

- Not classified

Relative density: 1.0 - 1.1 (OECD 109, 24 °C)

Solubility(ies) mg/l: ---- (Not Applicable)

Partition Coefficient (n-octanol/water) Log Pow: ----

Autoignition temperature °C: ----

Decomposition temperature °C: No data available

Kinematic viscosity mm²/s 40 °C: 595 (OECD 114, 23 °C)

Explosive properties: Not an explosive (OPPTS 830.6316)

Oxidizing properties: No data available

Other Information

Bulk density g/ml: ---- (Not Applicable)

Surface tension mN/m: ---- (No data available)
Bifenthrin: Not classified

Carcinogenicity

Novaluron: Not Carcinogenic
Bifenthrin: Not classified

Reproductive toxicity

Novaluron: Not toxic for the reproductive system
Bifenthrin: Not classified

STOT - single exposure

Novaluron: No data available
Bifenthrin: No data available

STOT - repeated exposure

Novaluron: No data available
Bifenthrin: No data available

Aspiration hazard

Novaluron: No data available
Bifenthrin: No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish 96-hour LC50 mg/l</td>
<td>42.40</td>
<td>Poecilia reticulata</td>
<td>OECD 203</td>
<td></td>
</tr>
<tr>
<td>Crustacea 48-hour EC50 mg/l</td>
<td>0.00028</td>
<td>Daphnia magna</td>
<td>OECD 202</td>
<td></td>
</tr>
<tr>
<td>Algae 72-hour EC50 mg/l</td>
<td>88.34</td>
<td>Selenastrum capricornutum</td>
<td>OECD 201</td>
<td></td>
</tr>
</tbody>
</table>

Other plants EC50 mg/l: ---- No data available

Chronic aquatic toxicity

<table>
<thead>
<tr>
<th>Fish NOEC mg/l</th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
</table>

Terrestrial Toxicity

Birds Oral LD50 mg/kg

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novaluron</td>
<td>&gt; 2000</td>
<td>Bobwhite quail</td>
<td>US EPA 71-1</td>
<td></td>
</tr>
<tr>
<td>Bifenthrin</td>
<td>1800</td>
<td>Bobwhite quail</td>
<td>EPA-OPPTS 850.2100</td>
<td></td>
</tr>
</tbody>
</table>

Bees Oral LD50 μg/bee

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novaluron</td>
<td>&gt; 100</td>
<td>Apis mellifera</td>
<td>EPPO 170</td>
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<tr>
<td>Bifenthrin</td>
<td>0.39</td>
<td>Apis mellifera</td>
<td>OECD 213, OECD 214</td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability
Abiotic Degradation

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water DT50 days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novaluron</td>
<td>----</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Bifenthrin</td>
<td>161.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil DT50 days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novaluron</td>
<td>----</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Bifenthrin</td>
<td>86.8</td>
<td></td>
<td>Field</td>
</tr>
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</table>

Biodegradation

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novaluron</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bifenthrin</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition Coefficient (n-octanol/water) Log Pow</td>
<td>4.3</td>
<td>OECD 107</td>
<td></td>
</tr>
<tr>
<td>Novaluron</td>
<td>&gt; 6.71</td>
<td>OECD 107</td>
<td></td>
</tr>
<tr>
<td>Bifenthrin</td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

Bioconcentration factor (BCF)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novaluron</td>
<td>----</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Bifenthrin</td>
<td>417</td>
<td>OECD 305</td>
<td></td>
</tr>
</tbody>
</table>

Mobility in soil

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novaluron</td>
<td>9598</td>
<td>Koc</td>
<td></td>
</tr>
<tr>
<td>Bifenthrin</td>
<td>236,610</td>
<td>Koc, Not mobile</td>
<td></td>
</tr>
</tbody>
</table>

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

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

Section 14: TRANSPORTATION INFORMATION
**IMDG/IMO**

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

**RID/ADR**

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

**ICAO/IATA**

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

**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