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

1.1. Product identifier

Trade name : Aceta Star 46 EC
Chemical formula : Bifenthrin : C23H22ClF3O2
                   Acetamiprid : C10H11ClN4

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : Insecticide
Uses advised against : None under normal conditions.

1.3. Details of the supplier of the safety data sheet

: ADAMA SOUTH AFRICA (PTY) LTD
  21 Viben Street
  Brackenfell  7560

Email : msds@mcw.co.il

1.4. Emergency telephone number

: +27 82 331 6463
  +27 21 982 1460

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

Classification 67/548/EEC (DSD) - 1999/45/EC (DPD)

: R10
  Xn; R22-R65
  Xi; R41
  N; R50-53

2.2. Label elements

Labelling 1999/45/EC (DPD)

Symbol(s)

: Xn : Harmful.
  N : Dangerous for the environment.

R Phrase(s)

: R10 - Flammable.
  R22 - Harmful if swallowed.
  R41 - Risk of serious damage to eyes.
  R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  R65 - Harmful : may cause lung damage if swallowed.

S Phrase(s)

: S02 - Keep out of the reach of children.
  S13 - Keep away from food, drink and animal feedingstuffs.
  S20/21 - When using, do not eat, drink or smoke.
  S23 - Do not breathe gas/fumes/vapour/spray.
  S36/37 - Wear suitable protective clothing and gloves.
  S51 - Use only in well-ventilated areas.
  S60 - This material and its container must be disposed of as hazardous waste.
  S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.
  S62 - If swallowed, do not induce vomiting : seek medical advice immediately and show this container or label.

2.3. Other hazards

Other hazards : None under normal conditions.
SAFETY DATA SHEET
EU Regulation No. 1907/2006, Annex II

Aceta Star 46 EC
R-20458

SECTION 3. Composition/information on ingredients

| Substance name          | Concentration % w/w | CAS No    | EC No          | Index No  | REACH Reg. | Classification
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bifenthrin</td>
<td>30 g/l</td>
<td>82657-04-3</td>
<td></td>
<td></td>
<td></td>
<td>Not classified (DSD/DPD)</td>
</tr>
<tr>
<td>Acetamiprid</td>
<td>16 g/l</td>
<td>135410-20-7</td>
<td></td>
<td>608-032-00-2</td>
<td></td>
<td>Acute Tox. 4 - H302 Aquatic Chronic 3 - H412 Xn; R22 R52-53</td>
</tr>
<tr>
<td>Cyclohexanone</td>
<td>&gt; 1 %</td>
<td>108-94-1</td>
<td>203-631-1</td>
<td>656-010-00-7</td>
<td></td>
<td>R10 Flam. Liq. 3 - H226 Acute Tox. 4 - H332 Xn; R20</td>
</tr>
<tr>
<td>CaABS/alkylaryl sulfonate</td>
<td>&gt; 1 %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Xi; R38-41 Eye Dam 1 - H318 Skin Irr. 2 - H315</td>
</tr>
<tr>
<td>Solvesso 150</td>
<td>&gt; 10 %</td>
<td>64742-94-5</td>
<td>265-198-5</td>
<td>649-424-00-3</td>
<td></td>
<td>Xi; R65 Asp. Tox 1 - H304</td>
</tr>
</tbody>
</table>

SECTION 4. First aid measures

4.1. Description of first aid measures

First aid measures
Inhalation: Remove victim to fresh air. Keep victim warm and at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediately get medical attention.

Skin contact: Remove affected clothing and wash all exposed skin area with soap and water, followed by warm water rinse. Immediately get medical attention. Wash clothing separately before re-use.

Eye contact: In case of eye contact, immediately rinse with clean water for 10-15 minutes. Immediately consult an eye specialist.

Ingestion: Do not induce vomiting. Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Immediately get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

4.3. Indication of any immediate medical attention and special treatment needed

Note to physician: There is no specific antidote. Treat symptomatically and give supportive therapy.

SECTION 5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: For small fire: foam, dry chemical, carbon dioxide. For large fire: water spray, water fog, foam. Avoid use of water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards: Thermal decomposition may generate: COx, NOx, chlorides, fluorides, toxic and irritating fumes.

5.3. Advice for fire-fighters

Protection against fire: Wear proper protective equipment. Self-contained breathing apparatus.

Special procedures: Fight fires from a protected location. Dike fire control water for later disposal.
SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders: Wear suitable protective clothing, gloves and eye/face protection, and chemical resistant boots.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or the environment, dispose to an authorised waste collection point. If the product has contaminated surface water, inform the appropriate authorities.

6.3. Methods and material for containment and cleaning up

Clean up methods: Absorb in sand or other inert material. Sweep or shovel spills into appropriate container for disposal. Wash away with plenty of water. Prevent entry to sewers and public waters.

6.4. Reference to other sections

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Handling: Avoid contact with skin and eyes. Do not breathe spray. Do not breathe vapour. When using do not eat, drink or smoke. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Packing: Coextruded polyethylene bottles.

Storage: Keep locked up. Keep container tightly closed. Avoid exposure to excessive heat or cold. Keep only in the original container in a cool, well ventilated place.

7.3. Specific end use(s)

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

TLV®: Not established

8.2. Exposure controls

Personal protection: Read the label before use.

- Respiratory protection: During spraying wear suitable respiratory equipment.
- Hand protection: Wear suitable gloves.
- Skin protection: Wear suitable protective clothing.
- Eye protection: Chemical goggles or safety glasses.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Liquid

Colour: Clear, Yellowish

Odour: Characteristic - aromatic

Odour threshold: Not available

pH: 4.0 - 8.0 (1% H2O)

Melting point / Freezing point: Data not available.

Initial boiling point - boiling range: Data not available.

Flash point: 50
SECTION 9. Physical and chemical properties (continued)

Evaporation rate: Data not available.
Flammability: Flammable.
Explosion limits (lower - upper): Data not available.
Vapour pressure: Data not available.
Vapour density: Data not available.
Relative density: 0.90 - 0.94 g/ml
Solubility: Data not available.
Partition coefficient: n-octanol / water: Acetamiprid: 0.80 (25 °C); Bifenthrin: >6.
Auto-ignition temperature: Data not available.
Decomposition temperature: Data not available.
Viscosity: Data not available.
Explosive Properties: Data not available.
Oxidising properties: Data not available.

9.2. Other information

: Not available

SECTION 10. Stability and reactivity

10.1. Reactivity
10.2. Chemical stability
Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions
Hazardous reactions: None known.

10.4. Conditions to avoid
Conditions to avoid: Protect from sunlight, open flame and sources of heat. Decomposes upon heating.

10.5. Incompatible materials
Materials to avoid: Avoid contact with: strong acids, strong bases.

10.6. Hazardous decomposition products
Hazardous decomposition products: Thermal decomposition may generate: CO x, NO x, chlorides, fluorides, toxic and irritating fumes.

SECTION 11. Toxicological information

11.1. Information on toxicological effects

- Acute toxicity
  - Oral, Rat LD50 (mg/kg): 1098
  - Dermal, Rat LD50 [mg/kg]: > 2000
  - Inhalation, Rat LC50 [mg/l/4h]: > 2.5
- Skin corrosion/irritation: Mildly irritating
- Serious eye damage/irritation: Severely irritating
- Respiratory or skin sensitisation: Non sensitizer (skin)
- Germ cell mutagenicity: No mutagenic effect.
- Carcinogenicity: No evidence of carcinogenicity
- Reproductive toxicity: Not considered to be toxic for the reproductive system.
- STOT-single exposure: Not available
SECTION 11. Toxicological information (continued)

- STOT-repeated exposure : Not available
- Aspiration hazard : Not available

SECTION 12. Ecological information

12.1. Toxicity

Acute toxicity

96 Hour - LC50- fish [mg/l] : 0.49 (guppy)
48 H-LC50-Daphnia magna [mg/l] : 0.4
72 H-EC50 - Algae [mg/l] : 0.49
Bees LD50 [µg/bee] : 0.46 (Oral); 5.29 (Contact)

Long-term exposure

12.2. Persistence - degradability

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

: Not available

12.6. Other adverse effects

: None known.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

General : Dispose of this material and its container at hazardous or special waste collection point.

SECTION 14. Transport information

14.1. UN number

UN N° : 1993

Hazard Label(s) : 3 : Flammable liquid.

14.2. UN proper shipping name

- Land transport - ADR/RID : FLAMMABLE LIQUID, N.O.S. (>1% Cyclohexanone)
- Proper shipping name : FLAMMABLE LIQUID, N.O.S. (>1% Cyclohexanone)
- H.I. no : 30
- Sea transport - IMO-IMDG : FLAMMABLE LIQUID, N.O.S. (>1% Cyclohexanone)
- Air transport - ICAO/IATA : FLAMMABLE LIQUID, N.O.S. (>1% Cyclohexanone)

14.3. Transport hazard class(es)

- Land transport - ADR/RID : 3
- Sea transport - IMO-IMDG : 3
- IMO-IMDG - class or division : 3
SECTION 14. Transport information (continued)

14.4. Packing group

- Land transport - ADR/RID : III
- Packing group : III
- Sea transport - IMO-IMDG : III
- Air transport - ICAO/IATA : III

14.5. Environmental hazards

- IMDG-Marine pollution : Marine pollutant - Polluant marin

14.6. Special precautions for user

: See transport documents.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

: Not applicable.

SECTION 15. Regulatory information

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

: Ensure all national/local regulations are observed.

15.2. Chemical Safety Assessment

: Not applicable

SECTION 16. Other information

List of relevant R phrases (heading 3) : R10 - Flammable.
R20 - Harmful by inhalation.
R22 - Harmful if swallowed.
R38 - Irritating to skin.
R41 - Risk of serious damage to eyes.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 - Harmful : may cause lung damage if swallowed.

List of relevant H phrases (Section 3) : H226 - Flammable liquid and vapour.
H302 - Harmful if swallowed.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H332 - Harmful if inhaled.
H412 - Harmful to aquatic life with long lasting effects.

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