PRODUCT SAFETY DATA SHEET OF DELTAMETHRIN 2.5 % WP

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>SEED B.OL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Name</td>
<td>DELTAMETHRIN 2.5 % WP</td>
</tr>
</tbody>
</table>
| Chemical Name       | ([S]-cyano-(3-phenoxyphenyl)-methyl)  
                     | (1R,3R)-3-(2,2-dibromoethenyl)-2,2-dimethyl-
                     | cyclopropane-1-carboxylate |
| Formula             | C₂₂H₁₉Br₂NO₃                |
| Supplier            | CHEMETWETS & FLOWS PVT.LTD  
                     | Plot no.129/c/2, 
                     | GIDC Estate, 
                     | Ankleshwar_393002 |
| Manufacturer        | CHEMETWETS & FLOWS PVT.LTD  
                     | Plot no.129/c/2, 
                     | GIDC Estate, 
                     | Ankleshwar_393002 |
| Environmental, Health and Safety Department | Fax : 02646-220254  
                     | Number: 02646-239490 |
| E mail Id           | chemetank@gmail.com        |

2. COMPOSITION INFORMATION OF INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS NO</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deltamethrin</td>
<td>52918-63-5</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION SUMMARY

POTENTIAL HEALTH EFFECTS

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>Cause irritation to eyes.</td>
</tr>
<tr>
<td>Skin</td>
<td>May cause transient sensation and itching by skin contact.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Harmful by inhalation.</td>
</tr>
</tbody>
</table>
Environment

Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present. Get medical attention if irritation develops and persists.

Contact with skin

Remove contaminated clothing and clean the affected skin area immediately with soap and plenty of water. Symptoms can be partially alleviated by the application of a vitamin E or moisturizing cream. When symptoms persist or in all cases of doubt seek medical advice.

Ingestion

In the event of collapse, apply artificial respiration. Keep in mind that if mouth-to-mouth resuscitation is used, vomit may contain toxic amounts of Alpha-cypermethrin. Keep the person calm and comfortable and obtain medical assistance as soon as possible.

Inhalation

Move the patient to fresh air and keep warm and at rest. If symptoms persist, call a physician.

5. FIRE FIGHTING MEASURES

Flash point

Not flammable

Extinguishing media

If product is involved in a fire, use water spray, foam, dry powder, carbon dioxide or sand.

Special exposure hazards

Thermal decomposition products may emit toxic fumes of hydrogen cyanide and oxides of carbon and nitrogen.

Protective equipment for fire-fighting

In the event of fire and/or explosion do not breathe fumes. Wear self contained breathing apparatus and protective suit for fire fighting.

Fire fighting guidance

Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Avoid dust formation. Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and overalls.

**Environmental precautions**

Do not let product contaminate subsoil. Do not allow product to enter drains. Do not flush into surface water. Prevent further spillage if safe.

**Methods for Cleaning Up**

Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Wash the spillage area with water. Washings must be prevented from entering surface water drains.

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7. HANDLING AND STORAGE

**HANDLING**

Avoid dust formation. No specific precautions required when handling unopened packs. Provide good ventilation of working area. Read and observe all precautions and instructions on the label.

**STORAGE**

Store in original containers, upright and closed. Store in areas that are cool, dry and well ventilated. Store away from seeds, fertilizers and animal feed stuff. Store in a place accessible by authorized persons only.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limit value**

ADI: 0.01 mg/kg bw (JMPR)

**Engineering controls**

No special ventilation is required, as this product is not volatile. Control process conditions to avoid contact.

**Respiratory protection**

Wear respirator with a particle filter mask (protection factor 4).

**Hand protection**
Wear chemical resistant nitrile or PVC gloves. Dispose of when contaminated inside, when perforated. Wash hands always before eating, drinking, smoking or using the toilet.

**Eye protection**

Wear safety goggles with imperforated side shield and face shield.

**Skin protection**

Avoid contact with skin. Wear apron, boots and full protective suit.

**Environmental exposure controls**

Keep away from food, drink and animal feed stuff. This material and its container must be disposed of as hazardous waste. Avoid release to the environment.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>White to cream-colored</td>
</tr>
<tr>
<td>Odour</td>
<td>Odorless</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>505.2 (Deltamethrin)</td>
</tr>
<tr>
<td>pH</td>
<td>The pH of an aqueous dispersion shall be 4.5 to 7.5.</td>
</tr>
<tr>
<td>Wet ability</td>
<td>The formulation shall be completely wetted in 2 min without swirling.</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Dispersible</td>
</tr>
<tr>
<td>Persistent foam</td>
<td>Maximum: 60 ml after 1 min</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

**Conditions to avoid**

Extremes of temperature and direct sunlight

**Materials to avoid**

None

**Hazardous reactions**

No hazardous reactions when stored and handled according to prescribed instructions. Stable under normal conditions.
11. TOXICOLOGICAL INFORMATION

Acute toxicity

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rat LD50 oral, Rats</td>
<td>&gt;2000 mg/kg bw</td>
</tr>
<tr>
<td>Rat LD50 dermal, Rats</td>
<td>&gt;2000 mg/kg bw</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>Non-irritant to skin of rabbits</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>Non-irritant to the eyes of rabbits</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Non-sensitizer to skin of Guinea pigs</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Mobility

Deltamethrin is classified as a low-mobility to immobile compound in soils.

Persistence and degradability

Deltamethrin is not persistent in the environment. It is degraded by soil microorganisms and does not leave residues in the environment.

13. DISPOSAL CONSIDERATION

Product disposal

Do not empty into drains or waterways. Disposal of product would usually be by incineration in an appropriate licensed commercial incinerator. Advice may be obtained from local waste regulation authorities.

Container disposal

Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

14. TRANSPORT INFORMATION

UN Number      3349
Class          6.1
UN packaging group III

15. REGULATORY INFORMATION UNITED STATES

None.
16. OTHER INFORMATION
None.

DISCLAIMER
All reasonable care has been exercised in processing your request for information on the chemical listed in this Material Safety Data Sheet. No warranty is made, either expressed or implied and Perisseuma Projects does not hold itself liable for any injury, illness, loss or misinterpretation arising from the use of this data. CHEMET WETS & FLOWS P.LTD makes no warranty expressed or implied in respect of the adequacy of this document for any particular purpose.

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