

## MATERIAL SAFETY DATA SHEET

### NEEMAZAL 1.2% (AZADIRACHTIN BASED INSECTICIDE)

#### SECTION I

#### MANUFACTURER

E.I.D PARRY (INDIA) LIMITED  
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#### SECTION II

#### HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

| Hazardous Components   | %    | CAS No.  | OSHA/PEL      | ACGIH/<br>TLV | OTHER<br>LIMITS<br>RECOMMEN<br>DED |
|--|------|--|---------------|---------------|------------------------------------|
| Azadirachtin A & B   | 1.2  | 11141-17-6<br>95507-03-2   | None<br>known | None<br>known | None known                         |
| Other aza compounds,<br>Aza-F,<br>Aza-H,<br>Aza-I,<br>Salannin, Nimbin and<br>Fatty acids etc. | 2.8  | 118855-02-0<br>134788-15-1<br>134788-16-2<br>992-20-1<br>5945-86-8 | Not known     | Not<br>known  | Not known                          |
| Other proprietary<br>mixture and formulation<br>compounds.                                     | 96.0 | Not known  | Not known     | Not<br>known  | Not known                          |

For E.I.D PARRY (INDIA) LIMITED

Signature of the Preparer:

AUTHORISED SIGNATORY

### SECTION III

#### PHYSICOCHEMICAL CHARACTERISTICS

|                           |   |  |
|---------------------------|---|--|
| Appearance                | : | Brown Viscous liquid   |
| Odour                     | : | Characteristic Azadirachtin Fragrant odour   |
| Solubility in water       | : | Emulsifies with water  |
| Specific Gravity          | : | 0.98   |
| Melting Point             | : | > 160 <sup>0</sup> C for Technical grade product   |
| Vapour Pressure           | : | 3.6 10 <sup>-11</sup> (hpa)  |
| Molecular Weight          | : | 720 - Aza - A<br>662 - Aza - B   |
| Active Ingredients        | : | Azadirachtin A<br>Azadirachtin B   |
| Empirical Formula         | : | C <sub>35</sub> H <sub>44</sub> O <sub>16</sub> - Aza A<br>C <sub>33</sub> H <sub>42</sub> O <sub>14</sub> - Aza B |
| Acidity                   | : | < 0.24%  |
| PH                        | : | 7 ± 0.02   |
| Corrosion Characteristics | : | Non corrosive to HDPE containers   |
| Viscosity                 | : | 281.4 mm <sup>2</sup> /S at 20 <sup>0</sup> C<br>96.95 mm <sup>2</sup> /S at 40 <sup>0</sup> C                     |
| Explodability             | : | Non explosive  |
| Boiling Point             | : | Not established  |

#### STABILITY AND REACTIVITY

|                                  |   |                                     |
|----------------------------------|---|-------------------------------------|
| Conditions to avoid              | : | High temperature, sunlight          |
| Materials to avoid               | : | Acids, alkalis and oxidising agents |
| Dangers of Product Decomposition | : | None                                |

## SECTION IV

### FIRE AND EXPLOSION DATA

|                                    |   |   |
|------------------------------------|---|---|
| Flash Point                        | : | > 171 °C - No Fire & Explosion Hazard     |
| Flammable Limits                   | : | Not known                                 |
| Extinguishing Media                | : | Polymer foam or carbon dioxide            |
| Special Fire Fighting Procedures   | : | Wear protective clothing and face shields |
| Unusual fire and explosion hazards | : | No hazard                                 |

## SECTION V

### REACTIVITY DATA

|                          |   |   |
|--------------------------|---|---|
| Stability                | : | Stable at ordinary conditions of use and storage                                  |
| Conditions to avoid      | : | High temperature, open sunlight or highly illuminated places degrade the material |
| Materials to Avoid       | : | Acids, alkali or oxidizing agents.  |
| Hazardous Decomposition  | : | No hazardous materials are produced   |
| Hazardous polymerization | : | Not occur   |



## SECTION VI

### HEALTH HAZARD DATA

Mode of Entry : Inhalation - yes  
Skin - yes  
Ingestion- yes

#### Health Hazards:

**Acute Toxicity** : Acute oral - Rat LD 50 >5000 mg/kg  
Acute Dermal -Rat LD 50>2000 mg/kg  
Acute Inhalation-Rat-LC50>5.4 mg/L  
Skin Irritation-Rabbit -Mild  
Eye Irritation-Rabbit-No Irritation  
Skin Sensitization-Guinea Pig-No Sensitization

#### Acute &Chronic Toxicity (TGAC )

- : - Acute Oral-Rat-LD50>5000 mg/kg
- Acute Dermal-Rat-LD50>2000 mg/kg
- Acute Inhalation-Rat-LC50-0.72 mg/L
- Skin Irritation-Rabbit-No Irritation
- Eye Irritation-Slight
- Skin Sensitization-Guinea Pig- Slight
- Mutagenicity-Non Mutagenic
- Carcinogenicty-Non Carcinogenic
- Neurotoxicity-No Neurotoxicity(NOAE C  
1000 mg/kg)
- Developmental Toxicity- Rats-NOAEC-50  
mg/kg/day
- Dietary Toxicity- rats-NOAEC-100 ppm

### SIGN AND SYMPTOMS OF EXPOSURE

|                  |   |  |
|------------------|---|--|
| Inhalation       | : | May be irritating to mucous membrane and excessive Exposure may result in drowsiness |
| Ingestion        | : | May cause drowsiness   |
| Skin Contact     | : | May cause mild irritation  |
| Eye Contact      | : | May cause mild irritation  |
| Chronic Exposure | : | Chronic exposure may cause various implications                                      |

### EMERGENCY AND FIRST AID PROCEDURE

|              |   |  |
|--------------|---|--|
| Inhalation   | : | Remove to fresh air  |
| Ingestion    | : | Induce vomiting by gastric lavage, call physician Immediately        |
| Skin Contact | : | Wash skin with soap  |
| Eye Contact  | : | Wash eyes with excessive water.<br>Get medical attention if required |

## SECTION VII

### ECOLOGICAL SAFETY

|                                     |   |                                      |
|-------------------------------------|---|--------------------------------------|
| Effect on Honeybees                 | : | Harmless                             |
| Effect on Earthworms                | : | Harmless (> 1000 mg/kg)              |
| Effect on Predators                 | : | Harmless                             |
| Hazard to Soil Microflora           | : | Non hazardous                        |
| Acute Daphnia Immobilization        | : | EC <sub>50</sub> > 50 mg/l           |
| Acute Fish Toxicity (Rainbow Trout) | : | LC <sub>50</sub> = 440 mg/l (24 hrs) |
| Algal Inhibition test               | : | Non inhibitory, non stimulant        |
| Metabolism in Soil                  | : | Rapid Decomposition in Soil          |
| Degradability in Water              | : | Readily Biodegradable in Water       |



## SECTION VIII

### PRECAUTIONS FOR SAFE HANDLING AND USE

#### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush the area with water. Do not allow water to contaminate surrounding area. Personnel in operation may wear protective clothing.

#### WASTE DISPOSAL METHOD

Do not contaminate water, food, or feed by storage or disposal. Disposal of containers in an approved disposal facility. Ensure compliance with local, state and federal regulations.

#### PRECAUTIONS FOR HANDLING AND STORAGE

Keep in a cool and dry place. Avoid direct sunlight. Open dumping is prohibited. Dispose containers in an approved waste facility.

#### OTHER PRECAUTIONS

|                              |   |   |
|------------------------------|---|---|
| Shipping Name                | : | Azadirachtin Based Insecticide              |
| Shipping Containers Markings | : | Azadirachtin Based Insecticide              |
| Shipping Container Labels    | : | Azadirachtin Based Insecticide              |
| Special Instructions         | : | No special instruction on handling required |
| Flammability                 | : | Non flammable                               |
| Transport by Air             | : | Safe for Air Transport                      |

## SECTION IX

### CONTROL MEASURES

|                        |   |  |
|------------------------|---|--|
| Respiratory Protection | : | Use spraying clothings to avoid spray mist<br>Direct contact |
| Protective Gloves      | : | Wear protective gloves                                       |
| Eye protection         | : | Wear chemical safety goggles                                 |

- Ventilation : Thorough ventilation is recommended in case of accidental spillage
- Work Practices : Observe good personnel hygiene. Wash hands after usage of the product

#### SECTION X

##### **Regulatory Information**

- Designation : Eco-friendly Azadirachtin Based Pesticide of Plant Origin
- : Non Hazardous Material

#### SECTION XI

##### **Information Origin**

E.I.D Parry (India) Limited.  
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