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

Manufacturer/Distributor: Rainbow Technology Corporation (800)637-6047
Contact Person: Larry Joe Steeley Jr.
Emergency Phone # (24 HOURS): Chem-Tel, Inc. (800)255-3924
Trade Name: Rainbow Fire Ant Killer; EPA Reg. No. 13283-14
Chemical Name: Mixture
Chemical Family: Mixture
Formula: Granular
Issue Date: August 4, 2015
Replaces SDS Dated: February 11, 2015

Section 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acute toxicity - Oral Category 3 - (H301)
Acute aquatic toxicity Category 1 - (H400)
Hazardous to the Aquatic Category 1 - (H410)
Environment - Chronic Hazard

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Signal word Danger

Hazard Statements H301 - Toxic 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

EU Specific Hazard Statements EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Additional phrases for PPP SP1 - Do not contaminate water with the product or its container

2.3. Other hazards
No information available
Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight-%</th>
<th>CAS No</th>
<th>EC No</th>
<th>Index No</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>M-Factor</th>
<th>REACH Registration Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpyrifos</td>
<td>97</td>
<td>2921-88-2</td>
<td>220-864-4</td>
<td>015-084-00-4</td>
<td>Acute Tox. 3 (H301) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)</td>
<td>10000</td>
<td>-</td>
</tr>
</tbody>
</table>

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of 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.

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

Symptoms
None known

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

Note to physicians
Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media
Use, Dry chemical, Carbon dioxide (CO2), Water spray (fog), Alcohol resistant foam.

Unsuitable Extinguishing Media
No information available.

5.2. Special hazards arising from the substance or mixture

No specific hazard known.

5.3. 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

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

For emergency responders
Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Methods for cleaning up
Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Other Information
See also section 8,13

Section 7: HANDLING AND STORAGE

7.1. 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. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product.

7.2. 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.

7.3. 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

### 8.1. Control parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>European Union</th>
<th>United Kingdom</th>
<th>France</th>
<th>Spain</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpyrifos 2921-88-2</td>
<td>STEL: 0.6 mg/m³ TWA: 0.2 mg/m³</td>
<td>Skin</td>
<td>TWA: 0.2 mg/m³</td>
<td>S* TWA: 0.1 mg/m³</td>
<td>TWA: 0.2 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Italy</th>
<th>Portugal</th>
<th>Netherlands</th>
<th>Finland</th>
<th>Denmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpyrifos 2921-88-2</td>
<td>TWA: 0.1 mg/m³</td>
<td></td>
<td>TWA: 0.2 mg/m³ STEL: 0.6 mg/m³</td>
<td>Skin</td>
<td>TWA: 0.2 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Austria</th>
<th>Switzerland</th>
<th>Poland</th>
<th>Norway</th>
<th>Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpyrifos 2921-88-2</td>
<td>Skin STEL: 0.4 mg/m³ TWA: 0.2 mg/m³</td>
<td>Skin TWA: 0.2 mg/m³</td>
<td>NDSCh: 0.6 mg/m³ STEL: 0.2 mg/m³</td>
<td>Skin TWA: 0.2 mg/m³ STEL: 0.6 mg/m³</td>
<td>TWA: 0.2 mg/m³</td>
</tr>
</tbody>
</table>

### 8.2. Exposure controls

#### Engineering Controls
Ensure adequate ventilation, especially in confined areas.

#### Personal protective equipment
- **Eye/face protection**: Tight sealing safety goggles.
- **Body Protection**: Gloves made of plastic or rubber, Suitable protective clothing, Rubber boots, Apron, Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact, Suitable protective clothing.

#### General Hygiene Considerations
When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product.

#### Environmental exposure controls
Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic 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>Solid, crystalline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Off-white</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Slight, characteristic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>---</td>
<td>OECD 102</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting point/freezing point °C</td>
<td>40.1 - 42.3</td>
<td>OECD 102</td>
<td>Decomposes</td>
</tr>
<tr>
<td>Boiling point/boiling range °C</td>
<td>---</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 flammable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor pressure kPa</td>
<td>6.6 *10-7</td>
<td>OECD 104</td>
<td>25 °C</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.5 - 1.6</td>
<td>OECD 109</td>
<td>25 °C</td>
</tr>
<tr>
<td>Solubility(ies) mg/l</td>
<td>0.588</td>
<td>OECD 105</td>
<td>20 °C</td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water) Log Pow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature °C</td>
<td>280</td>
<td>EEC A.15</td>
<td>See Section 12 for more information</td>
</tr>
<tr>
<td>Decomposition temperature °C</td>
<td>&gt; 160</td>
<td>EEC A.2</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity mm²/s 40 °C</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not an explosive</td>
<td>EEC A.14</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not oxidizing</td>
<td>EEC A.17</td>
<td></td>
</tr>
</tbody>
</table>
Section 10: STABILITY AND REACTIVITY

10.1. Reactivity
No data available.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None under normal processing.

10.4. Conditions to avoid
Heat, flames and sparks.

10.5. Incompatible materials
Strong oxidizing agents, Strong acids, Strong bases.

10.6. Hazardous decomposition products
None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

**Acute toxicity**

<table>
<thead>
<tr>
<th>Species</th>
<th>Method</th>
<th>Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 mg/kg</td>
<td></td>
<td>168</td>
<td>Rat OECD 401</td>
</tr>
<tr>
<td>Dermal LD50 mg/kg</td>
<td></td>
<td>&gt; 2000</td>
<td>Rat OECD 402</td>
</tr>
<tr>
<td>Inhalation LC50 mg/l/4h</td>
<td></td>
<td>2.89</td>
<td>Rat</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td></td>
<td>Non-irritating to the skin</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td></td>
<td>Not irritating to eyes</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Respiratory/skin sensitization</td>
<td></td>
<td>Not a skin sensitizer</td>
<td>Guinea pig</td>
</tr>
</tbody>
</table>

**Chronic toxicity**

- **Germ cell mutagenicity**
  - Chemical Name: Chlorpyrifos
    - Not classified

- **Carcinogenicity**
  - Chemical Name: Chlorpyrifos
    - Not Carcinogenic

- **Reproductive toxicity**
  - Chemical Name: Chlorpyrifos
    - Not toxic for the reproductive system

**STOT - single exposure**

- Chemical Name: Chlorpyrifos
  - No information available
### Section 12: ECOLOGICAL INFORMATION

#### 12.1. 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>0.025</td>
<td>Oncorhynchus mykiss</td>
<td>EPA-FIFRA 72-1</td>
<td></td>
</tr>
<tr>
<td>Crustacea 48-hour EC50 mg/l</td>
<td>0.0001</td>
<td>Daphnia magna</td>
<td>EPA-FIFRA 72-2</td>
<td></td>
</tr>
<tr>
<td>Algae 72-hour EC50 mg/l</td>
<td>1.2</td>
<td></td>
<td>OECD 201</td>
<td></td>
</tr>
<tr>
<td>Other plants EC50 mg/l</td>
<td>----</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Terrestrial Toxicity**

- **Birds Oral LD50 mg/kg**
  - Chemical Name: Chlorpyrifos
  - Value: 476

- **Bees Oral LD50 μg/bee**
  - Chemical Name: Chlorpyrifos
  - Value: 0.25

#### 12.2. Persistence and degradability

**Abiotic Degradation**

<table>
<thead>
<tr>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water DT50 days</td>
<td>Chlorpyrifos</td>
<td>16 - 35</td>
</tr>
<tr>
<td>Soil DT50 days</td>
<td>Chlorpyrifos</td>
<td>13 - 22</td>
</tr>
</tbody>
</table>

**Biodegradation**

- Chemical Name: Chlorpyrifos
  - Value: Not readily biodegradable

#### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Partition Coefficient (n-octanol/water) Log Pow</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpyrifos</td>
<td>4.76</td>
<td>OECD 107</td>
<td></td>
</tr>
</tbody>
</table>

**Bioconcentration factor (BCF)**

- Chemical Name: Chlorpyrifos
  - Value: 1374
  - Remarks: No bioaccumulation potential

#### 12.4. Mobility in soil

**Adsorption/Desorption**

- Chemical Name: Chlorpyrifos
  - Values: 2785 - 31000
  - Method: OECD 106
  - Remarks: Koc
12.5. Results of PBT and vPvB assessment
The components in this formulation do not meet the criteria for classification as PBT or vPvB

12.6. Other adverse effects
No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. 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
14.1 UN/ID No 2783
14.2 Proper shipping name ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC (Chlorpyrifos)
14.3 Hazard Class 6.1
14.4 Packing Group III
14.5 Marine pollutant Yes
14.6 Special precautions for user

RID/ADR
14.1 UN/ID No 2783
14.2 Proper shipping name ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC (Chlorpyrifos)
14.3 Hazard Class 6.1
14.4 Packing Group III
14.5 Environmental hazard Yes
14.6 Special precautions for user

ICAO/IATA
14.1 UN/ID No 2783
14.2 Proper shipping name ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC (Chlorpyrifos)
14.3 Hazard Class 6.1
14.4 Packing Group III
14.5 Environmental hazard Yes
14.6 Special precautions for user
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not Applicable
Section 15: REGULATORY INFORMATION

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

15.2. Chemical safety assessment
A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H301 - Toxic if swallowed
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Revision Note
*** - Change from previous version.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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