**SECTION 1: Product and company identification**

Product name: d'Bug
Use of the substance/mixture: Insecticide
Product code: 0848
Company: Total Solutions
   P.O. Box 240014
   Milwaukee, WI 53224 - USA
   T (414) 354-6417
Emergency number: Chemtec: (800) 424-9300

**SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

Classification (GHS-US)
   Flam. Liq. 3 H226
   Skin Sens. 1 H317
Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling
   Hazard pictograms (GHS-US):
   ![GHS02](image)
   ![GHS07](image)

Signal word (GHS-US): Warning
Hazard statements (GHS-US):
   Flammable liquid and vapor
   May cause an allergic skin reaction
Precautionary statements (GHS-US):
   Keep away from heat, open flames, sparks. - No smoking
   Keep container tightly closed
   Ground/bond container and receiving equipment
   Use explosion-proof electrical, lighting equipment
   Use only non-sparking tools
   Take precautionary measures against static discharge
   Avoid breathing mist, spray
   Contaminated work clothing must not be allowed out of the workplace
   Wear eye protection, protective clothing, protective gloves
   If on skin: Wash with plenty of soap and water.
   If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
   Specific treatment (see First Aid measures on this label)
   If skin irritation or rash occurs: Get medical advice/attention
   Take off contaminated clothing and wash it before reuse
   In case of fire: Use carbon dioxide (CO2), dry extinguishing powder, foam to extinguish
   Store in a well-ventilated place. Keep cool
   Dispose of contents/container to comply with local/regional/national/international regulations.

2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

**SECTION 3: Composition/information on ingredients**

3.1. Substance
Not applicable
   Full text of H-phrases: see section 16

3.2. Mixture
SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation: Remove the victim into fresh air. If you feel unwell, seek medical advice.
First-aid measures after skin contact: Take off contaminated clothing and wash it before reuse. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion: Rinse mouth with water. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

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

Symptoms/injuries: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after inhalation: May cause respiratory irritation.
Symptoms/injuries after skin contact: May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
Symptoms/injuries after eye contact: Direct contact with the eyes is likely irritating.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: All extinguishing media allowed.

5.2. Special hazards arising from the substance or mixture

Reactivity: Upon combustion: CO and CO2 are formed.

5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Remove ignition sources. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.
Emergency procedures: Stop leak if safe to do so. Stop release. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment: Contain released substance, pump into suitable containers.
Methods for cleaning up: This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures: Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.

Storage conditions: Keep container closed when not in use.

Incompatible materials: Heat sources. Sources of ignition.

Storage area: Meet the legal requirements. Store in a cool area. Store in a dry area. Keep container in a well-ventilated place.

Special rules on packaging: Meet the legal requirements. Keep only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment: Safety glasses. Gloves. Protective clothing. Use appropriate personal protective equipment when risk assessment indicates this is necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Milky white liquid.</td>
</tr>
<tr>
<td>Odor</td>
<td>Citrus scent</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>129 °F Closed Cup</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>0.993 g/ml</td>
</tr>
<tr>
<td>Solubility</td>
<td>Emulsifies in water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>VOC content</td>
<td>&lt; 6 %</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.1. Reactivity

Upon combustion: CO and CO2 are formed.
10.2. Chemical stability
No additional information available

10.3. Possibility of hazardous reactions
Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid
No additional information available

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

<table>
<thead>
<tr>
<th>(+)-limonene (5989-27-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td>ATE CLP (oral)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitization: May cause an allergic skin reaction.
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified

<table>
<thead>
<tr>
<th>(+)-limonene (5989-27-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
</tr>
</tbody>
</table>

Reproductive toxicity: Not classified
Specific target organ toxicity (single exposure): Not classified
Specific target organ toxicity (repeated exposure): Not classified
Aspiration hazard: Not classified
Symptoms/injuries after inhalation: May cause respiratory irritation.
Symptoms/injuries after skin contact: May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
Symptoms/injuries after eye contact: Direct contact with the eyes is likely irritating.

SECTION 12: Ecological information

12.1. Toxicity

<table>
<thead>
<tr>
<th>(+)-limonene (5989-27-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
</tr>
<tr>
<td>LC50 fish 2</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
</tr>
<tr>
<td>Threshold limit algae 2</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>(+)-limonene (5989-27-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
</tr>
<tr>
<td>ThOD</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>(+)-limonene (5989-27-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
</tr>
<tr>
<td>Log Pow</td>
</tr>
</tbody>
</table>
**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

**SECTION 14: Transport information**

**Department of Transportation (DOT)**

**Additional information**

Other information: When transported by ground in non-bulk containers, this product utilizes the exception found under 49 CFR 173.150.

**ADR**

No additional information available

**Transport by sea**

No additional information available

**Air transport**

No additional information available

**SECTION 15: Regulatory information**

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity.

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**CAUTION**: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

**SECTION 16: Other information**

Training advice: Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases:

- **Asp. Tox. 1**  
  Aspiration hazard Category 1
- **Flam. Liq. 3**  
  Flammable liquids Category 3
- **Skin Irrit. 2**  
  Skin corrosion/irritation Category 2
- **Skin Sens. 1**  
  Skin sensitization Category 1
- **H226**  
  Flammable liquid and vapor
- **H304**  
  May be fatal if swallowed and enters airways
- **H315**  
  Causes skin irritation
- **H317**  
  May cause an allergic skin reaction

NFPA health hazard: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard: 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

NFPA reactivity: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

Prepared by: Technical Department

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.