

## MATERIAL SAFETY DATA SHEET

Orange Guard, Inc.  
7 Trampa Canyon Road  
Carmel Valley, CA 93924  
24 Hour Emergency (831) 659-3217 /Chemtrec (800) 424-9300

### Section 1 - Identification

Trade Name: **Orange Guard** (EPA Reg.# 61887-1-AA)  
Orange Guard Fire Ant Control (EPA Reg.# 61887-2-AA)  
Orange Guard for Ornamental Plants (EPA Reg.# 61887-3)  
Cas Registry #: 5989-27-5 (d-Limonene, 5.8%)  
Cas Registry Names: Citrus Terpenes, Orange Terpenes, Menthadiene  
The active ingredient is d-Limonene (solvent). This is a steam distilled by-product of citrus peels, entirely of natural origin.  
Orange Guard is water based and all ingredients are classified foodgrade and G.R.A.S. (generally recognized as safe) by FDA.

### Section 2 - Physical & Health Hazard Ingredients

None

### Section 3 - Physical & Chemical Characteristics

Boiling Point: 99-100 degrees C.  
Vapor Pressure: 0.82 @ 100 degrees F.  
Vapor Density: Not volatile  
Water Solubility: Readily soluble  
Melting/Freezing Point: No data found  
Appearance: White, Opalescent  
Specific Gravity: 0.9753 g/ml  
Evaporation Rate: Not volatile  
PH: 6.1  
Viscosity: 1.97 centipoise @ 100 degrees F.  
Miscibility: Completely in all proportions  
Odor: Citrus like

### Section 4 - Physical Hazard Data

Flash Point: > 141 degrees F.  
Auto ignition Temp. No data found  
Flammable Limits: No data found  
Fire Fighting Media: Use media for primary cause of fire  
Special Fire Fighting Procedures: None known  
Fire Explosion Hazards: None known

### Section 4 - Physical Hazard Data Cont.

NFPA Hazard Codes - Health/Flammability/Reactivity	0	0	0
HMS Hazard Codes - Health/Flammability/Reactivity	0	0	0
Fire Point (ASTM Method): No data found			

## Section 5 - Reactivity Data

Stability:	Stable
Hazardous Polymerization:	Will not occur
Incompatible Materials:	None Known
Hazardous Decomposition Products:	None Known

## Section 6 - Health Hazard Data

### Acute Toxicity

Acute oral LD50 > 5g/kg body weight; classified toxicity category 4 for oral effects in accordance to EPA/FIFRA regulations.

Acute dermal LD50 > 5g/kg body weight; classified toxicity category 4

Acute Inhalation LC50 > 5.21mg/liter of air for a 4 hour period. All animals survived study in apparent good health and exhibited normal weight gains during the 14 day study. No Gross changes were observed in any animals at terminal necropsy.

Primary Eye Irritation Study: Classified in toxicity category 3 for eye effects meaning corneal involvement clearing in 7 days or less.

Primary Dermal Sensitization Study: Conclusion was Orange Guard tested neat and would not be considered a dermal sensitizing agent.

Primary Dermal Irritant Study: Classified in toxicity category 4

DOT Corrosive:	No
Primary route of entry:	Contact
Symptoms of Ingestion:	No effects of exposure expected
Symptoms of Inhalation:	No effects of exposure expected
Symptoms of Skin Contact:	No effects of exposure expected
Symptoms of Eye Contact:	Mild irritation

### Emergency First Aid Procedures

First Aid for Ingestion:	None required
First Aid for Inhalation:	None Required
First Aid for Skin Contact:	Wash with soap and water after exposure
First Aid for Eye Contact:	Rinse eye with water, see physician if irritation persists
Medical Conditions Aggravated by Exposure:	Possibly citrus allergies
Exposure Limits:	Exempt

### Other Toxicity

Tumorigenicity: None

## Section 6- Health Hazard Data Cont.

Mutagenicity:	None
Reproductive Toxicity:	None
Miscellaneous Toxicity:	No data found

## Section 7 - Occupational Control Procedures

Respiratory Protection:	None Required
Eye Protection:	Safety Glasses
Skin Protection:	None required
Personal Hygiene:	Observe ordinary measures of hygiene

## Section 8 - Precautions for Safe Handling and Use

### Spill/Leak Clean-up Procedures:

Small spills may be wiped up. Large spills should be absorbed by dirt, sand, or other suitable absorbents for disposal according to Federal, State, or Local regulations.

Disposal Method: Dispose of with liquid waste according to Federal, State, and Local regulations

EPA Hazardous Substance Reportable Quantity: Not listed

RCRA Class: Not regulated

## Section 9 - Transportation Data

### Domestic Data

DOT Shipping Name: Not regulated

DOT Hazard Class: Not regulated

Hazardous Ingredients: None

UN Number: None

### Export Data

Export Shipping Name: Not regulated

Export Hazard Class: Not regulated

Hazardous Ingredients: None

UN Number: None

Effective Date 6/4/2001

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