

# Material Safety Data Sheet, Orange Guard (all products)

## 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 byproduct of citrus peels, entirely of natural origin.

Orange Guard is water-based and all ingredients are classified food-grade and G.R.A.S. (generally recognized as safe) by the 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/m l
Evaporation Rate:	Not volatile
pH:	6.1
Viscosity:	1.97 centipose @ 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 lighting media:	Use media for primary cause of fire
Special fire fighting procedures:	None known
Fire explosion hazards:	None known
NFPA Hazard Codes:	Health/Flammability/Reactivity 000
HMIS Hazard Codes:	Health/Flammability/Reactivity 000
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 > 5.21 mg/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

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

### 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:

Exposure Limits:	Possibly citrus allergies
	Exempt

### Other Toxicity

Tumorigenicity:	
Mutagenicity:	
Reproductive Toxicity:	None
Miscellaneous Toxicity:	None
	None
	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. Dirt, sand, or other suitable absorbents for disposal according to Federal, State, or Local regulations should absorb large spills.

Disposal Method:

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

EPA Hazardous Substance Reportable Quantity:  
RCRA Class:

Not listed  
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 01/17/98

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