

d-Limonene: The Safer Citrus Solvent from Florida Cl

Florida Chemical Company, Inc.

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MATERIAL SAFETY DATA SHEET

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EMERGENCY PHONE NUMBERS:

FLORIDA CHEMICAL: (863) 294-8483

CHEMTREC 24 Hour Number: (800) 424-9300

In Canada, CANUTEC: (613) 996-6666

I. PRODUCT IDENTIFICATION

Tradename: Citrus Burst® 7
Chemical Name: d-Limonene/Carboxylate Ester
Common Name: d-Limonene/Ester Solvent

Caution: The user should conduct his/her own experiments and establish proper procedures and control before attempting use on critical parts.

II. INGREDIENTS

Chemical Name	CAS No.	% Weight	Exposure Limits
d-Limonene	5989-27-5	20 - 80	N/E
Ester Solvent	Proprietary	20 - 80	N/E

III. PHYSICAL DATA (Determined on Typical Data)

Boiling Point: 292° F
Specific Gravity (H2O = 1) 0.921
Vapor Pressure (mmHg): 1.0 @ 68° F
Percent Volatile by Volume%: 97+
Solubility: 50% in water

Physical Description:	Clear colorless to slightly yellow liquid. Mild orange aroma
Evaporation Rate (butyl acetate = 1):	0.28
pH of Water Dispersion	7.3, 10% solution

IV. FIRE & EXPLOSION HAZARD DATA

Flash Point:	127° F ASTM D93
Flammable Limits:	@ 212° F - No data
Extinguishing Media:	Water, water fog, foam, CO2
Special Fire Fighting Procedures:	None required
Incompatibility (Materials to Avoid):	Strong oxidizing agents, acids, halogens and peroxides
Hazardous Polymerization:	None known
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide
Stability Considerations:	Stable
Conditions to Avoid:	None known

V. HEALTH HAZARD DATA

ACUTE HEALTH EFFECTS

Eyes:

Skin Contact: May be irritating to skin. Contains a potential skin sensitizer

Ingestion: Product is harmful if swallowed

Inhalation: Prolonged exposure may cause irritation of mucous membranes

CHRONIC HEALTH EFFECTS NONE KNOWN. NOT LISTED AS A CARCINOGEN

Medical Conditions Aggravated by Exposure: Mist may cause eye/respiratory irritaiton with coughing.

Routes of Entry: Most common - skin and inhalation

EMERGENCY & FIRST AID PROCEDURES

Eyes: Flush with water for at least 15 minutes. See a medical doctor immediately

Skin: Wash affected area with copious amounts of soap and water. If irritation develops, seek medical attention

Ingestion: Seek medical attention immediately. DO NOT induce vomiting.

Inhalation: Remove person to fresh air. If discomfort occurs and persists, seek medical attention

VI. SPILL OR LEAK PROCEDURES

Cover with large quantity of absorbent material (e.g. kitty litter) and collect in drums for disposal. Clean contaminated area with soap and water.

Waste Disposal Method: Take up with sand or other non-combustible absorbent material and place into container for later disposal. Wash area with soap and water. Dispose in accordance with applicable Local, State, Federal and Environmental regulations. Taking regulations into consideration, waste may be incinerated or handled through EPA Spill Control Plan via landfill or dilution.

VII. SPECIAL PROTECTION INFORMATION

Respiratory Protection:	None required where adequate ventilation conditions exist. If vapor concentration becomes high, use NIOSH approved respirators.
Ventilation:	Local exhaust should be adequate, mechanical ventilation otherwise recommended if necessary.
Skin Protection:	Impervious gloves to prevent skin contact.
Eye Protection:	Oil resistant goggles
Other Protective Equipment:	Oil resistant apron recommended, industrial safety shoes are recommended in all industrial settings, emergency eye wash and shower stations.
Appropriate Hygiene Practices:	Wash thoroughly after handling. Launder contaminated clothing before re-use.

DO NOT SMOKE IN AREAS OF STORAGE OR USE.

VIII. TRANSPORTATION INFORMATION

TDG Status: Hazardous applies:	DOT Label/Placard [exemption § 173.150(f)]
IMO Status: Hazardous Liquids	Highway/Rail: per requirements for Combustible
IATA Status: Hazardous Liquids	Air/Ship: per requirements for Flammable

SHIPPING CLASSIFICATION:

Proper Shipping Name:	TERPENE HYDROCARBONS, N.O.S.
Hazard Class:	3
Identification No.	UN2319
Packing Group:	III

The listed transportation classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptions.

National Fire Protection Association Hazard Rating:

- 1 Health Hazard - Slight
- 2 Flammability - Moderate

0 Reactivity - Minimal

IX. STORAGE AND HANDLING

Handling: Keep container tightly closed. Minimize exposure to air. Store in a cool, dry, well-ventilated liquid storage area.

Ventilation: Use adequate general or local exhaust ventilation to keep vapor and mist levels as low as possible.

Storage: Store in a cool dry area, away from oxidizers and acids.

Precautions to be taken in Handling & Storage: Avoid all contact with eyes or skin. Wear appropriate protective equipment. Protect containers from physical damage.

X. ECOLOGICAL INFORMATION

Environmental Fate: 100% Biodegradable.

Environmental Effects: No adverse effects known or suspected. Not listed as a toxic chemical under SARA Title III 302, 304 or 313.

XI. REGULATORY INFORMATION

OSHA EXPOSURE LIMITS SUBSTANCE(S): d-Limonene, Ester Solvent

OSHA PEL-TWA	None established
STEL:	None established
CEILING:	None established
SKIN DESIGNATION:	None established
AGGIH TLV-TWA:	None established
STEL:	None established
CEILING:	None established
SKIN DESIGNATION:	None established
TARGET ORGAN EFFECTS:	Eye
CARCINOGENIC POTENTIAL:	None
REGULATED BY OSHA:	No
LISTED ON NTP REPORT:	No
IARC GROUP 1, 2A, 2D	No
US EPA REQUIREMENTS RELATIONS	
REPORTING CERCLA (40 CFR 302)	
LISTED SUBSTANCE(S):	Not listed
RQ:	Not applicable
CATEGORY:	Not applicable
RCRA WASTE NO:	Not applicable
UNLISTED SUBSTANCES(S):	d-Limonene, Ester Solvent
RQ:	None
CHARACTERISTIC:	Not applicable
RCRA WASTE NO:	Not applicable

SARA TITLE III SEC 313 (40 CFR 372)**LISTED TOXIC CHEMICAL:** Not listed**INVENTORY REPORTING SARAH TITLE III
SEC 311/312
(40 CFR 370)****SUBSTANCE(S):** Not listed**HAZARD CATEGORY:** Not applicable**PLANNING THRESHOLD:** Not applicable**EMERGENCY PLANNING:** Not applicable**SARA TITLE III SEC 302-303 (40 CFR 355)****LISTED SUBSTANCES(S)** Not listed**RQ:** Not applicable**PLANNING THRESHOLD:** Not applicable**US TSCA STATUS:** Listed**CANADA INGREDIENT DISCLOSURE LIST
SUBSTANCE(S)****CONTROLLED PRODUCT:****HAZARD SYMBOLS:****CLASS AND DIVISION:****PRODUCT IDENTIFICATION NO:****DOMESTIC SUBSTANCE LIST:****CEPA PRIORITY LIST:****CARCINOGENICITY:** Not listed in either OSHA, ACHIG, NTP or IARC**ACGIH APPENDIX A:** Not listed**A1 - CONFIRMED HUMAN:** Not listed**A1 - SUSPECTED HUMAN:** Not listed**IARC GROUP 1 OR 2:** No**LABEL LANGUAGE (US/CANADA) HEALTH:** Not applicable

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for Florida Chemical Co., Inc. Products

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