



Factor II, Incorporated

P.O. Box 1339
Lakeside, AZ 85929

Phone:(928) 537-8387
Fax: (928) 537-0893

MATERIAL SAFETY DATA SHEET B-515 D-Limonene

In Case of Emergency Contact 928-242-1308 Factor II, Inc.

Factor II Technology urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to the use and understanding of the data contained in this MSDS.

To promote safe handling each customer or recipient should: (1) notify and furnish its employees, agents, contractors, customers, and others whom it knows or believes will use this material of the information regarding hazards or safety; (2) request its customers to notify their employees, customers and other users of the product of this information.

1. CHEMICAL PRODUCT

PRODUCT NAME: D-Limonene Technical Grade
CHEMICAL NAME: Solvent

2. PRODUCT COMPOSITION

MATERIAL	CAS#	
D-LIMOLENE TECHNICAL GRADE	5989-27-5	100% by weight

3. HAZARDS and PROTECTION IDENTIFICATION

HEALTH HAZARDS (ACUTE & CHRONIC) Product is harmful if swallowed. Ingestion may cause vomiting, headache, and other medical problems. May be irritating to skin and eyes. Skin contact may cause slight redness. Contains a potential skin sensitizer. Eye contact can cause moderate to high irritation. Inhalation can cause nose, throat and respiratory tract irritation, coughing and headache.

Respiratory Protection: Use local exhaust. Ventilation is required. Use a NIOSH approved respirator to prevent over exposure if needed.

Eye Protection: Safety goggles or glasses suggested.

Skin Protection: Oil resistant gloves.

Other Protection: Oil resistant apron.

4. FIRST AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES:

SWALLOWING:

Do not induce vomiting. Seek medical attention immediately. Never give anything by mouth if victim unconscious.

SKIN:

Wash with soap and water. Remove contaminated clothing.

INHALATION:

Remove to fresh air. Get medical attention if symptoms persist.

EYES:

Immediately flush eyes with water and continue washing for at least 15 minutes. If irritation persists seek medical attention.



Factor II, Incorporated

P.O. Box 1339
Lakeside, AZ 85929

Phone:(928) 537-8387
Fax: (928) 537-0893

NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES

FLASH POINT: (TCC) 115°F

FLAMMABLE LIMITS IN AIR (by volume): LEL =0.27% UEL= 6.1%

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical or Foam

SPECIAL FIREFIGHTING PROCEDURES: Combustible liquid, Smother to exclude air. Do not use water, Handle as an oil fire.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Dike spills using absorbent such as sand or kitty litter.

Clean Up: Wipe up with absorbent material and place in closed container.

Use personal protection to prevent personal exposure.

Provide adequate ventilation.

Do not flush down drain. D-limoline may be toxic to aquatic organisms.

WASTE DISPOSAL METHOD: Dispose of in accordance with all Federal, State, and local regulations.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Normal precautions common to safe manufacturing practice should be followed in handling and storage.

Keep container tightly closed when not in use. Do not use pressure to empty container. Wash thoroughly after handling.

Do not cut, grind, weld, or drill on or near this container.

Store in cool dry and well ventilated area.

Keep away from foodstuffs.

Empty containers can contain product residue. All hazard warnings apply to empty containers.

8. PHYSICAL AND CHEMICAL PROPERTIES (based on typical material)

APPEARANCE & ODOR: Yellow to water white oil, Strong orange aroma.

BOILING POINT: 154°C to 310°F

VAPOR PRESSURE at 20°C: 2mm Hg

VAPOR DENSITY (air=1) N/A

SOLUBILITY IN WATER (By wt): Insoluble

SPECIFIC GRAVITY (25°C) 0.838-0.843

Percent Volatile by Volume: 95%

Note: The above information is not intended for use in preparing product specifications.

9. STABILITY AND REACTIVITY DATA

STABILITY: Stable. If avoids temperatures over 115 degrees F.

INCOMPATIBILITY: Avoid contact with oxidation agents including acidic clays, peroxides, halogens, vinyl chloride, and



Factor II, Incorporated

P.O. Box 1339
Lakeside, AZ 85929

Phone:(928) 537-8387
Fax: (928) 537-0893

iodine pentafluoride.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Smoke may be acrid and fume irritating. Burning generates CO₂ and smoke.

10. INFORMATION TOXICOLOGICAL

Small effects of toxicity. LD50: Of test species, 5g/kg, rat and rabbit.

Carcinogenicity: This material is not considered to be a carcinogen by the National Toxicology Program, the International Agency for Research on Cancer, or the Federal Occupational Safety and Health Administration.

11. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Keep out of sewage system. Product may be toxic to aquatic organisms.

12. DISPOSAL CONSIDERATIONS

Use proper landfill disposal or incineration.
Dispose of in accordance with all Federal, State, and local regulations.

13. TRANSPORT INFORMATION

TDG,IMO,IATA Hazardous Dot per requirements for Flammable
Proper Shipping Name: Terpene Hydrocarbons, N.O.S.
Hazard Class: 3
Identification No. : UN2319
Packing Group: III

14. REGULATORY INFORMATION

UNITED STATES, CANADA, EUROPE, AUSTRALIA, JAPAN, SOUTH KOREA All listed on inventory status

15. OTHER INFORMATION

HMS FORMAT:

Health: 1

Flammability: 2

Reactivity: 0

We believe that the information contained herein is current as of the date of this Material Safety Data Sheet, and is offered in good faith. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of Factor II Technology, it is the user's obligation to determine the conditions of safe use of the product.

Factor II Technology Regulatory Compliance Department



Factor II, Incorporated

P.O. Box 1339
Lakeside, AZ 85929

Phone:(928) 537-8387
Fax: (928) 537-0893