



Safety Data Sheet D-Limonene (Citrus Terpenes)

SECTION 1: Identification

1.1 Product identifier

Product name	D-Limonene (Citrus Terpenes)
Product number	bna-137
Brand	Bulk Apothecary

1.4 Supplier's details

Name	Bulk Apothecary
Address	115 Lena Dr Aurora OH 44202 United States
Telephone	1-888-728-7612
email	sales@bulkapothecary.com

1.5 Emergency phone number(s)

Domestic: 1-800-633-8253 International: 801-629-0667

SECTION 2: Hazard identification

General hazard statement

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Skin corrosion/irritation, Cat. 2
- Eye damage/irritation, Cat. 2A
- Sensitization, skin, Cat. 1
- Aspiration hazard, Cat. 1
- Flammable liquids, Cat. 3

2.2 GHS label elements, including precautionary statements

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Pictogram



Hazard statement(s)

H315	Causes skin irritation
H319	Causes serious eye irritation
H317	May cause an allergic skin reaction
H304	May be fatal if swallowed and enters airways
H226	Flammable liquid and vapor

Precautionary statement(s)

P264	Wash ... thoroughly after handling.
P280	Wear protective gloves/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P321	Specific treatment (see ... on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing must not be allowed out of the workplace.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P501	Dispose of contents/container to ...
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P331	Do NOT induce vomiting.
P405	Store locked up.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/.../ equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378	In case of fire: Use ... to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.

2.3 Other hazards which do not result in classification

May be harmful if swallowed

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. D-Limonene

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Concentration	100 % (weight)
EC no.	227-813-5
CAS no.	5989-27-5

- Aspiration hazard, Cat. 1
- Flammable liquids, Cat. 3
- Hazardous to the aquatic environment - acute hazard, Cat. 1
- Hazardous to the aquatic environment - long-term hazard, Cat. 1
- Sensitization, skin, Cat. 1
- Skin corrosion/irritation, Cat. 2

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
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
In case of skin contact	Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.
In case of eye contact	Flush eyes with water for 15 minutes. Get medical attention.
If swallowed	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

4.2 Most important symptoms/effects, acute and delayed

Causes serious eye irritation
Moderately irritating to the skin
May cause an allergic skin reaction
Aspiration hazard if swallowed - can enter the lungs and cause damage
Aspiration into the lungs may cause pulmonary edema
Aspiration into the lungs may cause chemical pneumonitis
Causes digestive (gastrointestinal) tract irritation
May cause abdominal pain, nausea, vomiting, diarrhea
Central nervous system effects
Weak, rapid pulse or rapid heart rate (Tachycardia)
May affect the liver
It may affect the kidneys
May affect respiration
Respiratory depression

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Dyspnea (Difficulty breathing and shortness of breath)

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Carbon dioxide (CO₂). Dry chemical. Water spray mist or foam. Alcohol-resistant foam.

5.2 Specific hazards arising from the chemical

Carbon monoxide; Carbon dioxide

5.3 Special protective actions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and materials for containment and cleaning up

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials. Air sensitive.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. D-Limonene (CAS: 5989-27-5 EC: 227-813-5)

TLV® (Inhalation): 20 ppm (ACGIH)

8.2 Appropriate engineering controls

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Goggles

Body protection

Chemical resistant apron
Long sleeved clothing
Gloves

Respiratory protection

Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Clear Liquid
Odor	strong citrus
Odor threshold	
pH	
Melting point/freezing point	-95.5 to -74 °C/-139.9 to -102.1 °F
Initial boiling point and boiling range	
Flash point	45-48°C/113.4-118.4 °F
Evaporation rate	
Flammability (solid, gas)	
Upper/lower flammability limits	6.1%/0.7%
Vapor pressure	
Vapor density	0.16-0.2
Relative density	
Solubility(ies)	
Partition coefficient: n-octanol/water	
Auto-ignition temperature	237°C/458.6°F
Decomposition temperature	
Viscosity	
Explosive properties	
Oxidizing properties	

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SECTION 10: Stability and reactivity

10.1 Reactivity

Reactive with oxidizing agents

Reacts violently with a mixture of iodine pentafluoride and tetrafluoroethylene, causing fire and explosion hazard

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur

10.4 Conditions to avoid

Heat. Ignition sources. Incompatible materials.

10.5 Incompatible materials

Oxidizing agents

10.6 Hazardous decomposition products

Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No information available

Skin corrosion/irritation

Contact causes skin irritation. Moderately irritating to the skin. It may be absorbed through the skin. May cause burning sensation, itching, redness. May cause allergic skin reaction/rashes/urticaria (hives).

Serious eye damage/irritation

Causes serious eye irritation. Moderately irritating to the eyes.

Respiratory or skin sensitization

Aspiration hazard. May be fatal if swallowed and enters airways.

Carcinogenicity

Not classifiable as to its carcinogenicity to humans.

Reproductive toxicity

No information available

Aspiration hazard

Aspiration hazard. May be fatal if swallowed and enters airways.

Additional information

May be harmful if swallowed. Aspiration hazard if swallowed. Aspiration into the

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lungs can cause chemical pneumonitis. Aspiration may lead to pulmonary edema. May cause digestive (gastrointestinal) tract irritation with nausea, vomiting, diarrhea. May cause abdominal pain. Ingestion may cause coughing and choking

due to irritant effects. May affect respiration (dyspnea, respiratory depression). It may cause central nervous system depression. May affect behavior/central nervous system (somnolence, ataxia). It may affect behavior/central nervous system (convulsions, excitement). May affect the cardiovascular system (tachycardia). May affect the kidneys (albuminuria, hematuria).

SECTION 12: Ecological information

Toxicity

Maybe harmful to the aquatic environment.

Persistence and degradability

No information available

Bioaccumulative potential

Potential for bioconcentration in aquatic organisms is high

Mobility in soil

low mobility

SECTION 13: Disposal considerations

Disposal of the product

low mobility

Disposal of contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal

Waste treatment

Waste must be disposed of in accordance with Federal, State and Local regulation.

SECTION 14: Transport information

DOT (US)

UN Number: UN2052

Class: 3

Packing Group: III

Proper Shipping Name: Dipentene

Marine pollutant: Yes

Poison inhalation hazard: Yes

IMDG

UN Number: UN2052

Class: 3

Packing Group: III

EMS Number: F-E

Proper Shipping Name: Dipentene

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IATA

UN Number: UN2052

Class: 3

Packing Group: III

Proper Shipping Name: Dipentene

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

D-Limonene

Pennsylvania Right To Know Components

D-Limonene

New Jersey Right To Know Components

D-Limonene

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

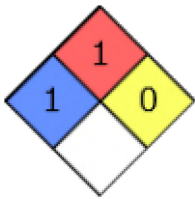
HMIS Rating

D-Limonene (Citrus Terpenes)	
HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

NFPA Rating

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SECTION 16: Other information

16.1 Further information/disclaimer

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