

SAFETY DATA SHEET



Date Prepared : 12/10/2014

MSDS No : DL

Date-Revised : 04/27/2016

Revision No : 9

D-LIMONENE

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: D-LIMONENE

MANUFACTURER

Tarr, LLC

P.O. Box 12570

Portland, OR 97212

Product Stewardship: 503-288-5294

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300

CANUTEC (Canadian Transportation) :(613) 996 - 6666

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Irritation, Category 2

Aspiration Hazard, Category 1

Environmental:

Acute Hazards to the Aquatic Environment, Category 1

Chronic Hazards to the Aquatic Environment, Category 1

Physical:

Flammable Liquids, Category 3

GHS LABEL



Flame

Health
hazardExclamation
mark

Environment

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H226: Flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H413: May cause long lasting harmful effects to aquatic life.

PRECAUTIONARY STATEMENT(S)

General:

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P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P270: Do not eat, drink or smoke when using this product.

Prevention:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P240: Ground and bond container and receiving equipment.

P243: Take action to prevent static discharges.

Response:

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/...

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P391: Collect spillage.

Storage:

P233: Keep container tightly closed.

P102: Keep out of reach of children.

P403+P235: Store in a well-ventilated place. Keep cool.

Disposal:

P273: Avoid release to the environment.

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: WARNING! Flammable liquid and vapor. Harmful if swallowed, inhaled or absorbed through skin. Affects central nervous system, liver and kidneys. Causes irritation to skin, eyes and respiratory tract.

POTENTIAL HEALTH EFFECTS

EYES: Material may cause eye irritation. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness.

SKIN: Liquid is moderately irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

INGESTION: Ingestion of excessive quantities may cause irritation of the digestive tract and signs of nervous system depression (headache, drowsiness, dizziness, loss of coordination and fatigue).

INHALATION: Vapors may be irritating to the nose, throat, and respiratory tract. Exposure to high vapor concentrations may cause central nervous system (CNS) depression.

MEDICAL CONDITIONS AGGRAVATED: Central nervous system disorders. Gastrointestinal tract. Preexisting eye disorders. Skin disorders.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Vol. %	CAS
D-Limonene	100	5989-27-5

4. FIRST AID MEASURES

EYES: Flush eyes with water for at least 15 minutes. Seek medical attention if irritation develops or persists.

SKIN: Immediately flush skin with plenty of water for at least 15 minutes. Obtain medical attention if blistering

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occurs or redness persists.

INGESTION: DO NOT INDUCE VOMITING. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, oxygen should be administered by qualified personnel. Seek medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision.

SKIN: Itching, burning or redness of the skin.

INGESTION: Ingestion of excessive quantities may cause irritation of the digestive tract, and sign of nervous system depression (headache, drowsiness, dizziness, loss of coordination, and fatigue).

INHALATION: Breathing high concentrations of vapors or mists may cause irritation of the nose or throat and signs of nervous system depression.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Class II combustible liquid.

EXTINGUISHING MEDIA: Use water fog, "alcohol" foam, dry chemical, or CO₂.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion.

FIRE FIGHTING EQUIPMENT: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Avoid breathing vapor. Remove all sources of ignition and provide ventilation. Wear protective clothing as given in section 8. Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material with absorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal using non-sparking equipment. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for proper disposal.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Protect against physical damage. Store in a cool, dry well-ventilated location. Avoid contact with eyes. Keep containers closed. Use with adequate ventilation. Containers should be bonded and ground for transfers to avoid static sparks.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

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ODOR: Characteristic odor.

APPEARANCE: Clear

COLOR: Water-white.

PERCENT VOLATILE: 100

FLASHPOINT AND METHOD: (123°F)

FLAMMABLE LIMITS: 0.007 to 0.061

AUTOIGNITION TEMPERATURE: ~ (441°F)

VAPOR PRESSURE: 2

VAPOR DENSITY: Heavier than air.

BOILING POINT: (310°F) to (330°F)

SOLUBILITY IN WATER: Soluble in most organic solvents, slightly soluble with water.

EVAPORATION RATE: Slower than ether.

DENSITY: 7.03

SPECIFIC GRAVITY: 0.838 to 0.843

(VOC): 7.030

10. STABILITY AND REACTIVITY

REACTIVITY: Yes

HAZARDOUS POLYMERIZATION: No

CONDITIONS TO AVOID: Avoid contact with heat, sparks, open flame, and static discharge. Avoid any source of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: None Expected.

INCOMPATIBLE MATERIALS: Strong oxidizers.

11. TOXICOLOGICAL INFORMATION

GENERAL COMMENTS: Laboratory studies have shown that petroleum distillates may cause kidney, liver, or lung damage. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

12. ECOLOGICAL INFORMATION

GENERAL COMMENTS: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

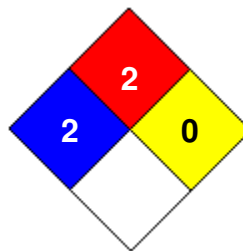
13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial land local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are with responsibility solely of the waste generator.

14. TRANSPORT INFORMATION

D-LIMONENE**DOT (DEPARTMENT OF TRANSPORTATION)****PROPER SHIPPING NAME:** Dipentene**PRIMARY HAZARD CLASS/DIVISION:** 3**UN/NA NUMBER:** UN2052**PACKING GROUP:** III**NAERG:** 128**MARINE POLLUTANT #1:** Yes**15. REGULATORY INFORMATION****UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****311/312 HAZARD CATEGORIES:** This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.**FIRE:** Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes**313 REPORTABLE INGREDIENTS:** To the best of our knowledge, this product is not listed as a toxic chemical under Section 313 of SARA Title III.**TSCA (TOXIC SUBSTANCE CONTROL ACT)****TSCA REGULATORY:** Listed.**16. OTHER INFORMATION****REASON FOR ISSUE:** Updated SDS information and changed to new format.**PREPARED BY:** Compliance **Date-Revised:** 04/27/2016**REVISION SUMMARY:** This MSDS replaces the 04/14/2016 MSDS. Revised: **Section 14:** DOT (DEPARTMENT OF TRANSPORTATION) (PRIMARY HAZARD CLASS/DIVISION, UN/NA NUMBER, PACKING GROUP, OTHER SHIPPING INFORMATION, MARINE POLLUTANT #1, NAERG).**HMIS RATING**

HEALTH	<input type="checkbox"/>	2
FLAMMABILITY	<input type="checkbox"/>	2
PHYSICAL HAZARD	<input type="checkbox"/>	0
PERSONAL PROTECTION	<input checked="" type="checkbox"/>	

NFPA CODES**NFPA STORAGE CLASSIFICATION:** These ratings are part of a specific hazard communication program and should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.**HMIS RATINGS NOTES:** Personal protection rating to be supplied by user depending on use conditions.**MANUFACTURER DISCLAIMER:** The information contained herein is based on the data available to us and is believed to be accurate. However, Tarr Acquisition, LLC (Tarr, LLC) makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Tarr, LLC assumes no responsibility for injuries from the use of the product described herein.

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