



SAFETY DATA SHEET

SECTION 1 IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Identifier	D-LIMONENE
Other Names	Dipentene
Manufacturer's Product Code	16888
Recommended Use	Lubricant, rust preventative, penetrant, polish, preservative

Details of Supplier/Manufacturer

Company:	Recochem Inc. ABN: 69 010 485 999
Address:	1809 Lytton Road, Lytton, Queensland 4178
Phone:	(07) 3308 5200 Fax: (07) 3308 5201
Website:	www.recochem.com.au



Emergency Telephone Numbers

Business Hours:	(07) 3308 5200
After Hours:	1300 131 001
Poisons Information:	Australia: 13 11 26 New Zealand: 0800 764 766

SECTION 2 HAZARDS IDENTIFICATION

Hazardous chemical	<i>according to classification by Safe Work Australia</i>
Dangerous goods	<i>according to the Australian Code for the Transport of Dangerous Goods by Road and Rail</i>

Signal Word	WARNING
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Hazardous chemical classification	Pictogram	Hazard statement
Flammable Liquids, Category 3	 FLAME	H226 Flammable liquid and vapour
Skin Corrosion/Irritation, Category 2	 EXCLAMATION MARK	H315 Causes skin irritation
Sensitisation - Skin, Category 1		H317 May cause an allergic skin reaction
Serious Eye Damage/Irritation, Category 2A		H319 Causes serious eye irritation

Product: D-LIMONENE

Acute Aquatic Toxicity, Category 1	 ENVIRONMENT	H410 Very toxic to aquatic life with long lasting effects
Chronic Aquatic Toxicity, Category 1		

Precautionary statements:

<i>GENERAL</i>	
P101	If medical advice is needed, have product container or label at hand
P102	Keep out of reach of children
P103	Read label before use
<i>PREVENTATIVE</i>	
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/ventilation/lighting equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P261	Avoid breathing mist/vapours/spray
P264	Wash thoroughly after handling
P272	Contaminated work clothing should not be allowed out of the workplace
P273	Avoid release to the environment
P280	Wear protective gloves/eye protection/face protection
<i>RESPONSE</i>	
P302 + P352	IF ON SKIN: Wash with plenty of soap and water
P303 + P361 + P353	IF ON SKIN (or hair): Take off contaminated clothing and wash before reuse. Rinse skin with water/shower
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332 + P313	If skin irritation occurs: Get medical advice/attention
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention
P337 + P313	If eye irritation persists: Get medical advice/attention
P362	Take off contaminated clothing and wash before reuse
P363	Wash contaminated clothing before reuse
P370 + P378	In case of fire: Use foam/water spray/fog for extinction
P391	Collect spillage
<i>STORAGE</i>	
P403 + P235	Store in a well-ventilated place. Keep cool
<i>DISPOSAL</i>	
P501	Dispose of contents/container in accordance with local regulations

SECTION 3 COMPOSITION AND INFORMATION ON INGREDIENTS**Ingredients Names and Proportions**

Chemical Entity	CAS Number	Proportion (%)
D-Limonene	5989-27-5	95 - 100

SECTION 4 FIRST AID MEASURES

Description of necessary first aid measures

Inhalation:	Remove victim from exposure if safe to do so. If rapid recovery does not occur, transport to nearest medical facility for additional treatment. Remove contaminated clothing.
Skin Contact:	If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water and follow by washing with soap if available.
Eye Contact:	If in eyes, hold eyes open, flood with water for at least 15 minutes. If symptoms persist transport to nearest medical facility for additional treatment.
Ingestion:	If swallowed, do NOT induce vomiting. Transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Symptoms caused by exposure

Inhalation:	May cause irritation to the respiratory system, headaches and coughing.
Skin:	May include redness, itching, possible dermatitis. May cause sensitisation by skin contact.
Eye:	May include redness, burning, blurred vision, or swelling.
Ingestion:	May cause irritation to the gastrointestinal tract, nausea and vomiting.

Medical attention and special treatment

Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing equipment

For a small fire use dry chemicals, carbon dioxide, water spray or foam. For large fires use water spray, fog or foam. Do not use water in a jet.

Specific hazards arising from the chemical

Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. Vapour is heavier than air, can spread along ground and distant ignition is possible.

Special protective equipment and precautions for fire fighters

Wear full protective clothing and self-contained breathing apparatus. Hazchem code 3Y.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Remove all sources of ignition in the surrounding area. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and earthing all equipment.

Environmental precautions

Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Ventilate contaminated area thoroughly.

Methods and materials for containment and cleaning up

For small spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely.

For larger spills (> 1 drum), transfer by means such as a vacuum truck to a salvage tank for recovery or disposal. Do not flush residues with water. Retain as contaminated waste. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Avoid breathing dust. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in contaminated areas. Handle and open containers with care in a well-ventilated area.

Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated area. Do not store near strong oxidants.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure control measures

No exposure standard has been established by National Occupational Health & Safety Commission (NOHSC) Worksafe Australia.

Biological monitoring

No biological limit allocated.

Engineering controls

Ensure that adequate ventilation is provided. Avoid generating and inhaling mists and vapours. Keep containers closed when not in use.

Individual protection measures

Eye and face protection:	Wear safety goggles.
Skin protection:	Use solvent resistant gloves, nitrile for longer term protection or PVC and neoprene for incidental splashes.
Respiratory protection:	If work practices do not maintain airborne level below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter. Select a filter for organic gases and vapours (boiling point > 65°C). Respirators should comply with AS1716 or an equivalent approved by a state/territory authority.
Thermal hazards:	Not applicable.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colourless to yellow liquid
Odour:	Characteristic
Odour threshold (ppm):	Data not available
pH:	Data not available
Melting point/freezing point (°C):	Data not available
Initial boiling point and boiling range (°C):	175
Flash point (°C):	46
Evaporation rate (Butyl acetate = 1):	Data not available
Flammability:	Flammable
Upper/lower flammability or explosive limits (%):	0.7 – 6.1
Vapour pressure (mmHg @ 20°C):	2
Vapour density (air = 1):	4.7
Density (g/ml @ 15°C):	0.84

Product: D-LIMONENE

Solubility:	Not miscible with water
Partition coefficient: n-octanol/water:	Data not available
Auto-ignition temperature (°C):	Data not available
Decomposition temperature (°C):	Data not available
Kinematic viscosity (mm ² /s @ 20°C):	Data not available

SECTION 10 STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions of use.

Chemical stability

Stable under normal conditions of use.

Possibility of hazardous reactions

Stable under normal conditions of use.

Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

Incompatible materials

Strong oxidising agents.

Hazardous decomposition products

Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids, gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity:	Expected to be of low toxicity, LD50 Oral (rat) > 2000 mg/kg
Skin corrosion/irritation:	Irritating to skin
Serious eye damage/irritation:	May be irritating to eyes
Respiratory or skin sensitisation:	May cause sensitisation by skin contact
Germ cell mutagenicity:	Not expected to be mutagenic
Carcinogenicity:	Not expected to be carcinogenic
Reproductive toxicity:	Not expected to impair fertility
Specific Target Organ Toxicity (STOT) – single exposure:	Data not available
Specific Target Organ Toxicity (STOT) – repeated exposure:	Repeated or prolonged exposure can cause defatting of skin and can lead to dermatitis
Aspiration hazard:	Data not available

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
Avoid contaminating drains or waterways.

Acute toxicity:

Fish –	No data available
Aquatic invertebrate –	No data available
Algae –	No data available
Microorganisms –	No data available

Chronic toxicity:

Fish –	No data available
Aquatic invertebrate –	No data available
Algae –	No data available
Microorganisms –	No data available

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

Floats on water.

Other adverse effects

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

Ensure waste disposal conforms to local waste disposal regulations.

SECTION 14 TRANSPORT INFORMATION

UN number:	2319
Proper shipping name:	Terpene Hydrocarbons, N.O.S. (D-Limonene)
Australian Dangerous Goods class:	3
Australian Dangerous Goods packing group:	III
Hazchem code:	3Y

SECTION 15 REGULATORY INFORMATION

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poisons Schedule:	Not scheduled
Australian Inventory of Chemical Substances (AICS):	Listed
Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB76):	15

SECTION 16 OTHER INFORMATION

Date of preparation:	24/05/2017
Revision number:	5
Changes in this revision:	Corrected typos

This SDS summarises product safety information at the date of issue, to the best of our knowledge, as a general guide. Recochem cannot anticipate or control the conditions under which the product is used, so prior to usage each user must assess and control the risks associated with their use of the product. Users should also consult the relevant legislation governing the use and storage of this product. We make no warranties, express or implied, and assume no liability in connection with any use of information contained within this document. If clarification or further information is needed, the user should contact Recochem on (07) 3308 5200.
