

MATERIAL SAFETY DATA SHEET

D-Limonene

1 PRODUCT & COMPANY IDENTIFICATION

Product Name:	D-Limonene	Supplier:	ASES CHEMICAL WORKS.
Synonyms:	(+)-Dipentene; (+)-Limonene, (R)-(+)-Limonene	Address:	Brahm Bagh, Jalori Gate Jodhpur - 342001 Rajasthan-India
INCI Name:	D-LIMONENE	Phone:	+91-9636889954
CAS Number:	5989-27-5	Web:	www.ases.in
Chemical Formula:	C ₁₀ H ₁₆	Email :	ecom@ases.in
Product Form:	Substance		
Product Use:	Industrial.		

2 HAZARDS IDENTIFICATION

Classification according to Regulation (EC) No. 1272/2008 [CLP]




Flammable liquids -	H226	Category 3
Skin corrosion/irritation -	H315	Category 2
Skin sensitisation -	H317	Category 1
Hazardous aquatic environment -	Chronic Hazard	Category 1

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xi	R38	R43
N	R50/53	R10

Adverse physicochemical, human health and environmental effects

No additional information available

GHS Labeling: Hazard pictograms   
Signal Word : Warning

Hazard Statements :
H226 - Flammable liquid and vapour.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary Statements : P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS-No	EC-No
D-LIMONENE	5989-27-5	205-341-0

4 FIRST AID MEASURES

Inhalation:	Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.
Skin contact:	Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. If skin irritation or rash occurs:
Eye contact:	Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
Ingestion:	Rinse mouth out with water. If you feel unwell, seek medical advice.

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5 FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water Foam Carbon dioxide (CO ₂) Dry powder
Unsuitable extinguishing media	Do not use a heavy water stream.
Fire hazard	Flammable liquid and vapour.
Explosion hazard	May form flammable/explosive vapour-air mixture.
Advice for firefighters	Do not attempt to take action without suitable protective equipment.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions :	Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Evacuate unnecessary personnel. Use personal protective equipment as required.
Environmental Precautions:	Very toxic to aquatic life with long lasting effects.
Clean up procedure :	Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

7 HANDLING & STORAGE

Handling:	Handle empty containers with care because residual vapours are flammable. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapours/spray.
Storage:	Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof equipment. Keep container tightly closed. Store in original container. Store in a dry place.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Hand protection :	Protective gloves
Eye protection :	Chemical goggles or safety glasses
Skin and body protection :	Wear suitable protective clothing
Respiratory protection :	Wear appropriate mask

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state :	Liquid	Flash point :	45 - 48 °C
Molecular mass :	136.24 g/mol	Auto-ignition temperature :	237 °C
Colour :	Clear colourless to pale yellow.	Evaporation rate:	approx. 5.8 (Diethyl ether = 1)
Odour :	Characteristic	Decomposition temperature :	No data available
Odour threshold :	No data available	Flammability (solid, gas) :	Flammable liquid and vapour.
pH :	No data available	Relative density :	No data available
Vapour pressure :	Approx.2 mmHg (@ 25 °C)	Log Pow :	No data available
vapour density:	approx. 4.7 Air = 1	Viscosity, kinematic :	No data available
Melting point :	-90 °C	Viscosity, dynamic :	No data available
Freezing point:	approx. -74 °C	Explosive properties :	No data available
Boiling point :	approx. 175 °C	Oxidising properties :	No data available
Solubility :	Immiscible with water	Explosive limits :	No data available
Specific Gravity :	0.835 - 0.845		

10 STABILITY AND REACTIVITY

Reactivity:	No additional information available.
Chemical Stability:	Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.
Hazardous Polymerization:	No additional information available.
Conditions to Avoid:	Open flame. Overheating. Direct sunlight. Heat. Sparks.
Incompatible Materials:	No additional information available
Hazardous Decomposition Products:	May release flammable gases

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11 TOXICOLOGICAL INFORMATION

Acute toxicity :	Not classified
Skin corrosion/irritation :	Causes skin irritation.
Serious eye damage/irritation :	Not classified
Respiratory or skin sensitisation :	May cause an allergic skin reaction.
Germ cell mutagenicity :	Not classified
Carcinogenicity :	Not classified
Reproductive toxicity :	Not classified
STOT-single exposure :	Not classified.
STOT-repeated exposure :	Not classified
Aspiration hazard :	Not classified

12 ECOLOGICAL INFORMATION

Ecology - water :	Very toxic to aquatic life with long lasting effects.
Persistence and degradability:	May cause long-term adverse effects in the environment.
Bio accumulative potential:	No additional information available
Mobility in soil:	No additional information available
Results of PBT and vPvB assessment:	No additional information available
Other adverse effects:	No additional information available

13 DISPOSAL CONSIDERATIONS

Product/Packaging disposal	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Additional information :	Handle empty containers with care because residual vapours are flammable.

14 TRANSPORT INFORMATION

UN-No. (ADR/ IMDG/IATA/AND/RID):	2052
Proper Shipping Name(ADR/ IMDG/IATA/AND/RID):	Dipentene
Transport description (ADR/IMDG/IATA/AND/RID):	UN 2052 Dipentene, 3, III, Environmentally Hazardous
Transport hazard class(es) (ADR/ IMDG/IATA/AND/RID):	3

15 REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

EU-Regulations : No REACH Annex XVII restrictions

Substance is not on the REACH Candidate List

Substance is not on the REACH Annex XIV List

Chemical safety assessment: No additional information available

16 OTHER INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and ASES CHEMICAL WORKS assume no liability resulting from its use.