
SAFETY DATA SHEET

1 Identification of the substance or preparation and the supplier

Product Name: **d-Limonene**
Datasheet Number: 4-0099 1. 2. 0
Product Part Number: 43E00530
Chemical Name: (R)-p-mentha-1,8-diene
Synonyms: Dipentene
1,8-p-menthadiene
Cyclohexene, 1-methyl-4-(1-methylethenyl-,(R)-



Irritant



Dangerous for the Environment

Name of Supplier: Xerox Ltd.
Address of Supplier: Xerox Environment, Health & Safety - BC1
Bessemer Road
Welwyn Garden City
Herts. AL7 1BU
UK
Telephone: ++44 (0)1707 353434
Fax: ++44 (0)1707 353914
Responsible Person: Manager, Environment, Health and Safety
Emergency Telephone: Not applicable

2 Composition/information on ingredients

Chemical Name	Concentration	CAS Number	EC Number	R Phrases	Symbols
(R)-p-mentha-1,8-diene	>99.5%	5989-27-5	227-813-5	R10, R38, R43, R50/53	Xi, N

3 Hazards identification

- Contact with eyes: May cause irritation
- Contact with skin: Causes irritation
- Inhalation: May cause irritation
- Ingestion: May cause nausea/vomiting
- May cause sensitisation by skin contact

4 First aid measures

Contact with skin

- Remove contaminated clothing immediately and wipe affected skin with dry cloth. Then wash with soap and water
- Seek medical attention if ill effects occur

Contact with eyes

- If substance has got into eyes, immediately wash out with plenty of water for at least 15 minutes
- Seek medical attention if irritation persists

4 First aid measures (....)

Ingestion

- Do not induce vomiting because of risk of aspiration into the lungs. If aspiration is suspected obtain immediate medical attention
- Give water or milk to drink
- Seek medical attention if ill effects occur

Inhalation

- Remove patient to fresh air
 - Seek medical advice if necessary
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5 Fire-fighting measures

- Auto-ignition point 236.6 deg C
 - Lower explosive limit 0.7 % (in air)
Upper explosive limit 6.1 % (in air)
 - Flammable (R10), Flash point 50° C (CC)
 - Products of combustion are carbon dioxide and carbon monoxide
 - In case of fire, do not breathe fumes
 - In case of fire use foam, carbon dioxide or dry agent
 - In the event of an adjacent fire, cool containers with water spray
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6 Accidental release measures

Environmental Precautions

- Do not allow to enter public sewers and watercourses

Immediate Actions

- Shut off all ignition sources
- Clean up spills immediately, as residues are slippery

Clean Up Actions

- Ventilate area
 - Absorb spillage in suitable inert material
 - Remove contaminated material to safe location for subsequent disposal
 - Wash spill site with water and detergent
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7 Handling and storage

Handling

- Avoid contact with skin (S24)
- Avoid transfer to eyes
- Wash hands after handling

Storage

- Store in packaging supplied, away from heat and sources of ignition
 - Keep in a cool, dry, well ventilated place
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8 Exposure controls and personal protection

Exposure Limits

- None assigned
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8 Exposure controls and personal protection (....)

Exposure controls

- Ensure adequate ventilation

Occupational exposure controls

- Wear suitable gloves
- Avoid transfer to eyes

9 Physical and chemical properties

- Appearance: Colourless to pale straw coloured liquid
- Odour: Fresh citrus odour
- Boiling point: 178°C
- Vapour pressure: 1.4mm Hg mbar at 20°C, Vapour pressure: 2.0mm Hg mbar at 25°C, Vapour pressure at Flash Point: 7.4mm Hg mbar
- Melting point: -74.3°C
- Water solubility <0.2% (20°C)
- Specific gravity 0.837-0.85 g/cm³
- Flammable (R10), Flash point 50° C (CC)
- Auto-ignition point 236.6 deg C
- Lower explosive limit 0.7 % (in air)
- Upper explosive limit 6.1 % (in air)

10 Stability and reactivity

- Stable
- Conditions to avoid: Open flames and high temperatures
- Incompatibility with other materials: Avoid contact with strong oxidising agents

11 Toxicological information

Inhalation

- Possible risk of respiratory irritation from prolonged or repeated inhalation

Contact with skin

- Causes irritation
- May cause sensitisation by skin contact
- LD50 (skin,rabbit) >2000 mg/kg

Contact with eyes

- May cause irritation

Ingestion

- LD50 (oral, rat) >2000 mg/kg
- The ingestion of significant quantities may cause nausea/vomiting

Carcinogenicity

- Not classified as a carcinogen

Mutagenicity

- No evidence of mutagenic effects

12 Ecological information

Ecotoxicity

- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R50/53)

Mobility

- Water solubility <0.2 %

Persistence and Biodegradability

- This substance is biodegradable
- Biodegradability: Complete in 28 days

Bioaccumulation Potential

- Bioaccumulation is insignificant
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13 Disposal considerations

Classification

- European Waste Code: 07 01 04*

Disposal considerations

- This material and/or its container must be disposed of as hazardous waste
 - Do not discharge into drains or the environment, dispose to an authorised waste collection point
 - Seek specialist advice
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14 Transport information

Proper Shipping Name: Dipentene

UN

UN No.: 2052 Hazard Class: 3

Packing Group: III

Road/Rail (ADR/RID)

ADR UN No.: 2052 ADR Hazard Class: 3

ADR Packing Group: III ADR Classification code: F1

Sea (IMDG)

IMDG UN No.: 2052 IMDG Hazard Class.: 3

IMDG Pack Group.: III IMDG EmS: F-E, S-E

Air (ICAO/IATA)

ICAO Un No.: 2052 ICAO Hazard Class.: 3

ICAO Packing Group.: III

15 Regulatory information

15 Regulatory information (....)



Irritant



Dangerous for the Environment

Applicable Laws

- This product is covered by The Dangerous Preparations Directive (1999/45/EC) as amended

Risk Phrases

- Flammable (R10)
- Irritating to skin (R38)
- May cause sensitisation by skin contact (R43)
- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R50/53)

Safety Phrases

- Keep out of reach of children (S2)
- Avoid contact with skin (S24)
- Wear suitable gloves (S37)
- This material and its container must be disposed of as hazardous waste (S60)
- Avoid release to the environment. Refer to special instructions/Safety data sheets (S61)

16 Other information

(R10: Flammable. R38: Irritating to skin. R43: May cause sensitisation by skin contact. R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.)