

# SAFETY DATA SHEET

D-LIMONENE 96%

Page: 1

Compilation date: 30/11/2018

Revision No: 1

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product name:** D-LIMONENE 96%

**CAS number:** 5989-27-5

**EINECS number:** 227-813-5

**Product code:** GPS8889

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Use of substance / mixture:** PC21: Laboratory chemicals.

### 1.3. Details of the supplier of the safety data sheet

**Company name:** Atom Scientific Ltd

2b East Tame Business Park

Hyde

Manchester

SK14 4GX

**Tel:** 0161 366 5123

**Fax:** 01704 337167

**Email:** technical@atomscientific.com

### 1.4. Emergency telephone number

**Emergency tel:** 07833453806

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** Flam. Liq. 3: H226; Asp. Tox. 1: H304; Skin Irrit. 2: H315; Skin Sens. 1: H317; Aquatic

Chronic 1: H410; Aquatic Acute 1: H400

**Classification under CHIP:** -: R10; Xi: R38; Sens.: R43; N: R50/53

**Most important adverse effects:** Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects. May be fatal if swallowed and enters airways.

### 2.2. Label elements

**Label elements under CLP:**

**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.

H304: May be fatal if swallowed and enters airways.

[cont...]

# SAFETY DATA SHEET

D-LIMONENE 96%

Page: 2

**Signal words:** Danger

**Hazard pictograms:** GHS02: Flame

GHS07: Exclamation mark

GHS08: Health hazard

GHS09: Environmental



**Precautionary statements:** P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P331: Do NOT induce vomiting.  
P302+352: IF ON SKIN: Wash with plenty of soap and water.  
P333+313: If skin irritation or rash occurs: Get medical advice/attention.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

## 2.3. Other hazards

**Other hazards:** No data available.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.1. Substances

**Chemical identity:** D-LIMONENE 96%

**CAS number:** 5989-27-5

**EINECS number:** 227-813-5

**Contains:** Molecular Formula: C<sub>10</sub>H<sub>16</sub>

Molecular Weight: 136.24 g/mol

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a doctor.

**Inhalation:** Risk of serious damage to the lungs. Move to fresh air in case of accidental inhalation of vapours. If unconscious, check for breathing and apply artificial respiration if necessary.

### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and pain.

**Ingestion:** No data available.

[cont...]

# SAFETY DATA SHEET

D-LIMONENE 96%

Page: 3

**Inhalation:** No data available.

**Delayed / immediate effects:** No data available.

## 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** No data available.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Water spray. Alcohol resistant foam. Dry chemical powder. Carbon dioxide. Cool closed containers exposed to fire with water spray.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** Flammable. Vapour may travel considerable distance to source of ignition and flash back. In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Use personal protective equipment. Ensure adequate ventilation. Eliminate all sources of ignition. Take precautionary measures against static discharges.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Ensure there is sufficient ventilation of the area. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.  
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.  
For precautions see section 2.2.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed.

[cont...]

# SAFETY DATA SHEET

D-LIMONENE 96%

Page: 4

**Suitable packaging:** Not applicable.

## 7.3. Specific end use(s)

**Specific end use(s):** No special requirement.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Workplace exposure limits:** No data available.

### 8.1. DNEL/PNEC Values

**DNEL / PNEC** No data available.

### 8.2. Exposure controls

**Engineering measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Respiratory protection:** If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection:** Natural rubber  
Nitrile rubber  
Neoprene  
PVC

**Eye protection:** Safety goggles.

**Skin protection:** Protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Environmental:** Do not let product enter drains. Prevent from entering in public sewers or the immediate environment.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Pale yellow

**Odour:** Sweet-smelling

**Solubility in water:** Insoluble

**Boiling point/range°C:** 175.4 - 176 °C

**Melting point/range°C:** -74 °C

**Flammability limits %: lower:** 0.7

**upper:** 6.1

**Flash point°C:** 48 °C

### 9.2. Other information

**Other information:** Not applicable.

[cont...]

# SAFETY DATA SHEET

D-LIMONENE 96%

Page: 5

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** No data available.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** No data available.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Flames. Sources of ignition.

### 10.5. Incompatible materials

**Materials to avoid:** Acids. Strong oxidising agents. Strong reducing agents.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Relevant hazards for substance:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Based on test data
Respiratory/skin sensitisation	DRM	Based on test data
Aspiration hazard	-	Based on test data

### Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and pain.

**Ingestion:** No data available.

**Inhalation:** No data available.

**Delayed / immediate effects:** No data available.

**Other information:** Not applicable.

## Section 12: Ecological information

### 12.1. Toxicity

[cont...]

# SAFETY DATA SHEET

D-LIMONENE 96%

Page: 6

## Ecotoxicity values:

Species	Test	Value	Units
FISH	96H LC50	35	mg/l

## 12.2. Persistence and degradability

**Persistence and degradability:** Only slightly biodegradable.

## 12.3. Bioaccumulative potential

**Bioaccumulative potential:** Slightly bioaccumulable.

## 12.4. Mobility in soil

**Mobility:** Spillage unlikely to penetrate soil.

## 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

## 12.6. Other adverse effects

**Other adverse effects:** No data available.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Offer surplus and non-recyclable solutions to a licensed disposal company.

**Recovery operations:** Not applicable.

**Disposal of packaging:** Dispose of as unused product.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN2052

### 14.2. UN proper shipping name

**Shipping name:** DIPENTANE

### 14.3. Transport hazard class(es)

**Transport class:** 3

### 14.4. Packing group

**Packing group:** 3

### 14.5. Environmental hazards

**Environmentally hazardous:** Yes

**Marine pollutant:** No

[cont...]

# SAFETY DATA SHEET

D-LIMONENE 96%

Page: 7

## 14.6. Special precautions for user

**Special precautions:** No special precautions.

## Section 15: Regulatory information

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

**Specific regulations:** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and 3:** H226: Flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H410: Very toxic to aquatic life with long lasting effects.

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.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.