

SECTION 1: Identification of the substance /mixture and of the company/undertaking**1.1. Product identifier**

Product Name P-6 Lemon
REACH registration number No information available

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

Recommended Use Fragrance ingredient
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier ANTARI LIGHTING AND EFFECTS LTD
Address 8, Lane 231, Nankan, Road, Section 1, Luzhu Dist., Taoyuan City
Postal Code 33859
Phone 03-322-5829#318
FAX 03-322-0433
E-mail any@antari.com.tw

Importer
Address
Postal Code
Phone
FAX
E-mail

1.4. Emergency telephone number

0933-108-913

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Skin corrosion/irritation Category 2 - (H315)
Serious eye damage/eye irritation Category 2 - (H319)
Skin sensitization Category 1 - (H317)
Aspiration toxicity Category 1 - (H304)
Chronic aquatic toxicity Category 2 - (H411)

2.2. Label elements

Symbols/Pictograms



Signal word
Hazard Statements

Danger
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P273 - Avoid release to the environment P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 P331 - Do NOT induce vomiting

EU Specific Hazard Statements None.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Terpineol	232-268-1	8000-41-7	10-20	Skin Irrit. 2 H315 Eye Irrit. 2 H319
(r)-p-mentha-1,8-diene	227-813-5	5989-27-5	10-20	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Flam. Liq. 3 (H226)
P-mentha-1,4(8)-diene	209-578-0	586-62-9	2.5-10	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) Aquatic Chronic 2 H411
Citral	226-394-6	5392-40-5	5-10	Skin Irrit. 2 (H315) Skin Sens. 1 (H317)
Benzyl benzoate	204-402-9	120-51-4	2.5-10	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 3 H412
3.alpha.,4,5,6,7,7.alpha.-hexahydro-4,7-methanoinden-6-yl acetate	226-501-6	5413-60-5	2.5-10	Aquatic Chronic 3 H412
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	260-709-8	57378-68-4	<10	Skin Sens. 1 H317
(e)-1-(2,6,6-trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	246-430-4	24720-09-0	<10	Acute Tox. 4 H302 Skin Sens. 1 H317
Linalool	201-134-4	78-70-6	1-5	Skin Irrit. 2 (H315)
Decanal	203-957-4	112-31-2	3-5	Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Chronic 3 H412
Allyl 3-cyclohexylpropionate	220-292-5	2705-87-5	1-5	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Irrit. 2 (H315)
P-menth-1-en-8-ol	202-680-6	98-55-5	1-3	Skin Irrit. 2 H315 Eye Irrit. 2 H319
Nonanal	204-688-5	124-19-6	2.5-3	Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Chronic 3 H412
Undecanal	203-972-6	112-44-7	0.25-2.5	Aquatic Chronic 3 H412
Octanal	204-683-8	124-13-0	1-2.5	Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Chronic 3 H412
2-methylundecanal	203-765-0	110-41-8	1-2.5	Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Chronic 3 H412

2,6-di-tert-butyl-p-cresol	204-881-4	128-37-0	0.25-2.5	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Citronellol	203-375-0	106-22-9	<1	Skin Irrit. 2 (H315) Skin Sens. 1 (H317)
Tridec-2-enenitrile	245-142-6	22629-49-8	<0.25	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

Remove contaminated clothing and shoes. If symptoms persist, call a physician.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth. Get medical attention. Never give anything by mouth to an unconscious person.

Self-protection of the first aider

First aider: Pay attention to self-protection. Use personal protection recommended in Section 8.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

No information available.

5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protection recommended in Section 8.

6.2. Environmental precautions

Local authorities should be advised if significant spillages cannot be contained. Prevent entry into waterways, sewers, basements or confined areas.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

6.4. Reference to other sections

See Section 7 for more information

See section 8 for more information

See section 13 for more information

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use personal protection recommended in Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep locked up and out of reach of children. Store in accordance with local regulations.

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
2,6-di-tert-butyl-p-cresol (CAS #: 128-37-0)	10 mg/m ³	TWA: 10 mg/m ³	-	TWA: 10 mg/m ³	-

Chemical Name	Latvia	France	Finland	Germany	Italy
(r)-p-mentha-1,8-diene (CAS #: 5989-27-5)		TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 50 ppm STEL: 280 mg/m ³	TWA: 5 ppm TWA: 28 mg/m ³ Ceiling / Peak: 20 ppm Ceiling / Peak: 112 mg/m ³ Skin	-
P-mentha-1,4(8)-diene (CAS #: 586-62-9)		TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-	-
2,6-di-tert-butyl-p-cresol (CAS #: 128-37-0)		TWA: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³	TWA: 10 mg/m ³ Ceiling / Peak: 40 mg/m ³ Skin	-

Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
(r)-p-mentha-1,8-diene (CAS #: 5989-27-5)	-	-	-	STEL: 40 ppm STEL: 220 mg/m ³ TWA: 20 ppm TWA: 110 mg/m ³	-
Citral (CAS #: 5392-40-5)	STEL: 54 mg/m ³ TWA: 27 mg/m ³	-	S*	-	-

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
(r)-p-mentha-1,8-diene (CAS #: 5989-27-5)	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 25 ppm STEL: 140 mg/m ³	-	-	-	-
Citral (CAS #: 5392-40-5)	-	-	TWA: 5 ppm inhalable fraction and vapor S*	-	-
2,6-di-tert-butyl-p-cresol (CAS #: 128-37-0)	-	-	TWA: 2 mg/m ³ inhalable fraction and vapor	-	TWA: 10 mg/m ³

Derived No Effect Level (DNEL)

No information available

Predicted No Effect Concentration (PNEC)

No information available

8.2. Exposure controls**Engineering Controls**

Showers. Eyewash stations. Ventilation systems. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand Protection	Wear protective gloves.
Skin and body protection	Suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	None under normal processing

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Liquid
Color	Yellow
Odor	Characteristic
Odor Threshold	Not determined
pH	Not determined
Melting point/freezing point	Not determined
Boiling point / boiling range	Not determined
Flash point	>61 °C
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Explosive limits	Not determined
Flammability Limit in Air	Not determined
Density	0.9546 g/cm ³
Vapor Pressure	Not determined
Vapor density	Not determined
Relative density	Not determined
Partition coefficient (LogPow)	Not determined
Autoignition temperature	Not determined
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive
Oxidizing properties	Not determined

9.2. Other information

No information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

None known based on information supplied.

10.6. Hazardous decomposition products

None under normal use conditions.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Terpineol (CAS #: 8000-41-7)	2900 mg/kg (Rat) > 2000 mg/kg bw (Rat)	> 3000 mg/kg (Rabbit) > 2000 mg/kg bw (Rat)	> 4.76 mg/L air 4h (Rat)
(r)-p-mentha-1,8-diene (CAS #: 5989-27-5)	= 4400 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
P-mentha-1,4(8)-diene (CAS #: 586-62-9)	= 4390 mg/kg (Rat)	-	-
Citral (CAS #: 5392-40-5)	= 4960 mg/kg (Rat)	= 2250 mg/kg (Rabbit)	-
Benzyl benzoate (CAS #: 120-51-4)	500 mg/kg (Rat) > 2000 mg/kg bw (Rat)	4000 mg/kg (Rabbit)	-
Linalool (CAS #: 78-70-6)	= 2790 mg/kg (Rat)	= 5610 mg/kg (Rat)	-
Decanal (CAS #: 112-31-2)	= 3730 µL/kg (Rat)	= 5040 µL/kg (Rabbit)	-
Allyl 3-cyclohexylpropionate (CAS #: 2705-87-5)	= 585 mg/kg (Rat)	-	-
P-menth-1-en-8-ol (CAS #: 98-55-5)	= 5170 mg/kg (Rat)	-	-
Nonanal (CAS #: 124-19-6)	> 5 g/kg (Rat)	> 5000 mg/kg (Rabbit)	-
2-methylundecanal (CAS #: 110-41-8)	> 5 g/kg (Rat)	> 10 g/kg (Rabbit)	-
2,6-di-tert-butyl-p-cresol (CAS #: 128-37-0)	= 890 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Citronellol (CAS #: 106-22-9)	= 3450 mg/kg (Rat)	= 2650 mg/kg (Rabbit)	-

Skin corrosion/irritation

Causes skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation

Sensitization

May cause an allergic skin reaction

Germ cell mutagenicity

No information available.

Carcinogenicity

Chemical Name	European Union	IARC
(r)-p-mentha-1,8-diene (CAS #: 5989-27-5)	-	Group 2A Group 3
2,6-di-tert-butyl-p-cresol (CAS #: 128-37-0)	-	Group 3

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Aspiration hazard

May be fatal if swallowed and enters airways

SECTION 12: Ecological information**12.1. Toxicity**

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Terpineol (CAS #: 8000-41-7)	68 mg/L:72h Pseudokirchnerella subcapitata	62-80 mg/L :24h Danio rerio	73 mg/L:48h Daphnia magna
(r)-p-mentha-1,8-diene (CAS #: 5989-27-5)	-	0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50	-
Citral (CAS #: 5392-40-5)	16: 72 h Desmodemus subspicatus mg/L EC50 19: 96 h Desmodemus subspicatus mg/L EC50	4.6 - 10: 96 h Leuciscus idus mg/L LC50 static	7: 48 h Daphnia magna mg/L EC50
Benzyl benzoate (CAS #: 120-51-4)	0.475 mg/L : 72 h Selenastrum capricornutum	2.32 mg/L : 96 h Brachydanio rerio	4.26 mg/L : 24 h Daphnia magna
Linalool (CAS #: 78-70-6)	88.3: 96 h Desmodemus subspicatus mg/L EC50	22 - 46: 96 h Leuciscus idus mg/L LC50 static	-
2,6-di-tert-butyl-p-cresol (CAS #: 128-37-0)	6: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.42: 72 h Desmodemus subspicatus mg/L EC50	5: 48 h Oryzias latipes mg/L LC50	-

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Chemical Name	Partition coefficient (LogPow)
Citral (CAS #: 5392-40-5)	2.76
Linalool (CAS #: 78-70-6)	2.84 - 3.1
2,6-di-tert-butyl-p-cresol (CAS #: 128-37-0)	4.17

Chemical Name	Bioconcentration factor (BCF)
2,6-di-tert-butyl-p-cresol (CAS #: 128-37-0)	230 - 2500

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14: Transport information

14.1. UN number	3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((r)-p-mentha-1,8-diene)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
14.5. Environmental hazards	Marine Pollutant
14.6. Special precautions for user	No information available
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code	Does not apply

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****European Union**

Component	EINECS/ELINCS	SVHC candidates	RESTRICTIONS - REACH TITLE VIII
Terpineol 8000-41-7 (10-20)	X	-	-
(r)-p-mentha-1,8-diene 5989-27-5 (10-20)	X	-	-
P-mentha-1,4(8)-diene 586-62-9 (2.5-10)	X	-	-
Citral 5392-40-5 (5-10)	X	-	-
Benzyl benzoate 120-51-4 (2.5-10)	X	-	-
3.alpha.,4,5,6,7,7.alpha.-hexahydro-4,7-methanoinden-6-yl acetate 5413-60-5 (2.5-10)	X	-	-
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one 57378-68-4 (<10)	X	-	-

(e)-1-(2,6,6-trimethyl-2-cyclohexen-1-yl)-2-buten-1-one 24720-09-0 (<10)	X	-	-
Linalool 78-70-6 (1-5)	X	-	-
Decanal 112-31-2 (3-5)	X	-	-
Allyl 3-cyclohexylpropionate 2705-87-5 (1-5)	X	-	-
P-menth-1-en-8-ol 98-55-5 (1-3)	X	-	-
Nonanal 124-19-6 (2.5-3)	X	-	-
Undecanal 112-44-7 (0.25-2.5)	X	-	-
Octanal 124-13-0 (1-2.5)	X	-	-
2-methylundecanal 110-41-8 (1-2.5)	X	-	-
2,6-di-tert-butyl-p-cresol 128-37-0 (0.25-2.5)	X	-	-
Citronellol 106-22-9 (<1)	X	-	-
Tridec-2-enenitrile 22629-49-8 (<0.25)	X	-	-

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories

Component	TSCA	DSL/NDSL	ENCS	IECSC	KECL	PICCS	AICS
Terpineol 8000-41-7 (10-20)	X	X	X	X	X	X	X
(r)-p-mentha-1,8-diene 5989-27-5 (10-20)	X	X	X	X	X	X	X
P-mentha-1,4(8)-diene 586-62-9 (2.5-10)	X	X	X	X	X	X	X
Citral 5392-40-5 (5-10)	X	X	X	X	X	X	X
Benzyl benzoate 120-51-4 (2.5-10)	X	X	X	X	X	X	X
3.alpha.,4,5,6,7,7.alpha.-hexahydro-4,7-methanoinden-6-yl acetate 5413-60-5 (2.5-10)	X	X	X	X	X	X	X
1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one 57378-68-4 (<10)	X	X	X	X	X	X	X
(e)-1-(2,6,6-trimethyl-2-cyclohexen-1-yl)-2-buten-1-one 24720-09-0 (<10)	X	X	X	X	X	X	X
Linalool 78-70-6 (1-5)	X	X	X	X	X	X	X
Decanal 112-31-2 (3-5)	X	X	X	X	X	X	X

Allyl 3-cyclohexylpropionate 2705-87-5 (1-5)	X	X	X	X	X	X	X
P-menth-1-en-8-ol 98-55-5 (1-3)	X	X	X	X	X	X	X
Nonanal 124-19-6 (2.5-3)	X	X	X	X	X	X	X
Undecanal 112-44-7 (0.25-2.5)	X	X	X	X	X	X	X
Octanal 124-13-0 (1-2.5)	X	X	X	X	X	X	X
2-methylundecanal 110-41-8 (1-2.5)	X	X	X	X	X	X	X
2,6-di-tert-butyl-p-cresol 128-37-0 (0.25-2.5)	X	X	X	X	X	X	X
Citronellol 106-22-9 (<1)	X	X	X	X	X	X	X
Tridec-2-enenitrile 22629-49-8 (<0.25)	X	X	X	X	-	X	X

"-" Not Listed

"X" Listed

15.2. Chemical safety assessment

No information available.

SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Issue Date 14-Apr-2016
Revision date 14-Apr-2016
Revision Note Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Key literature references and sources for data

ECHA: <http://echa.europa.eu/>

IFA GESTIS: [http://gestis-en.itrust.de/nxt/gateway.dll?f=templates\\$fn=default.htm\\$vid=gestiseng:sdbeng](http://gestis-en.itrust.de/nxt/gateway.dll?f=templates$fn=default.htm$vid=gestiseng:sdbeng)

HSDB: <http://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

Full text of H-Statements referred to under section 3

- H302 - Harmful if swallowed
- H400 - Very toxic to aquatic life
- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H410 - Very toxic to aquatic life with long lasting effects
- H226 - Flammable liquid and vapor
- H319 - Causes serious eye irritation
- H304 - May be fatal if swallowed and enters airways
- H411 - Toxic to aquatic life with long lasting effects
- H412 - Harmful to aquatic life with long lasting effects
- H312 - Harmful in contact with skin

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

----- End of Safety Data Sheet -----

REACH