

SECTION 1: Identification of the substance /mixture and of the company/undertaking

1.1. Product identifier

Product Name P-4 apple
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 For industrial use only

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]
Chronic aquatic toxicity Category 3 - (H412)

2.2. Label elements

Symbols/Pictograms None
Signal word None
Hazard Statements H412 - Harmful to aquatic life with long lasting effects
Precautionary Statements P273 - Avoid release to the environment
P501 - Dispose of contents/ container to an approved waste disposal plant
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]

2,6-dimethyloct-7-en-2-ol	242-362-4	18479-58-8	1-3	Eye Irrit. 2 (H319)
Undecan-4-olide	203-225-4	104-67-6	1-2.5	Aquatic Chronic 3 (H412)
Allyl heptanoate	205-527-1	142-19-8	1-2.5	Acute Tox. 3 (H301) Acute Tox. 3 (H331) Acute Tox. 3 (H311) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)
2-tert-butylcyclohexyl acetate	201-828-7	88-41-5	1-2.5	Aquatic Chronic 2 (H411)
.alpha., .alpha.-dimethylphenethyl acetate	205-781-3	151-05-3	1-2.5	Aquatic Chronic 3 (H412)
Allyl 3-cyclohexylpropionate	220-292-5	2705-87-5	0.25-1	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Acute Tox. 4 (H312) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	216-133-4	1506-02-1	0.25-1	Acute Tox. 4 (H302) 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

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

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

No data available.

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	No information available
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
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
2,6-dimethyloct-7-en-2-ol (CAS #: 18479-58-8)	= 3600 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
Undecan-4-olide (CAS #: 104-67-6)	= 18500 mg/kg bw (Rat)	> 2000 mg/kg bw (Rat)	-
Allyl heptanoate (CAS #: 142-19-8)	= 500 mg/kg (Rat)	= 810 mg/kg (Rabbit)	-
2-tert-butylcyclohexyl acetate (CAS #: 88-41-5)	= 4600 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
.alpha., .alpha.-dimethylphenethyl acetate (CAS #: 151-05-3)	= 3300 mg/kg (Rat)	-	-
Allyl 3-cyclohexylpropionate (CAS #: 2705-87-5)	= 585 mg/kg (Rat)	-	-
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one (CAS #: 1506-02-1)	= 964 mg/kg (Rat)	-	-

Skin corrosion/irritation

No information available.

Serious eye damage/eye irritation

No eye irritation.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Aspiration hazard

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Undecan-4-olide (CAS #: 104-67-6)	5.94 mg/L :48h Pseudokirchnerella subcapitata	5.5 mg/L :96h	2 mg/L :48h Daphnia magna

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Chemical Name	Partition coefficient (LogPow)
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one (CAS #: 1506-02-1)	4.6

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	Not regulated
14.2. UN proper shipping name	Not regulated
14.3. Transport hazard class(es)	Not regulated
14.4. Packing group	Not regulated
14.5. Environmental hazards	Not regulated
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
2,6-dimethyloct-7-en-2-ol 18479-58-8 (1-3)	X	-	-
Undecan-4-olide 104-67-6 (1-2.5)	X	-	-
Allyl heptanoate 142-19-8 (1-2.5)	X	-	-
2-tert-butylcyclohexyl acetate 88-41-5 (1-2.5)	X	-	-
.alpha., .alpha.-dimethylphenethyl acetate 151-05-3 (1-2.5)	X	-	-

Allyl 3-cyclohexylpropionate 2705-87-5 (0.25-1)	X	-	-
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one 1506-02-1 (0.25-1)	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
2,6-dimethyloct-7-en-2-ol 18479-58-8 (1-3)	X	X	X	X	X	X	X
Undecan-4-olide 104-67-6 (1-2.5)	X	X	X	X	X	X	X
Allyl heptanoate 142-19-8 (1-2.5)	X	X	X	X	X	X	X
2-tert-butylcyclohexyl acetate 88-41-5 (1-2.5)	X	X	X	X	X	X	X
.alpha., .alpha.-dimethylphenethyl acetate 151-05-3 (1-2.5)	X	X	X	X	X	X	X
Allyl 3-cyclohexylpropionate 2705-87-5 (0.25-1)	X	X	X	X	X	X	X
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one 1506-02-1 (0.25-1)	X	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

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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

H412 - Harmful to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

H301 - Toxic if swallowed

H331 - Toxic if inhaled

H311 - Toxic in contact with skin

H400 - Very toxic to aquatic life

H319 - Causes serious eye irritation

H302 - Harmful if swallowed

H332 - Harmful if inhaled

H312 - Harmful in contact with skin

H317 - May cause an allergic skin reaction

H410 - Very toxic to aquatic life with long lasting effects

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 -----