

Material Safety Data Sheet

Version 3.1
Revision Date 01/06/2009
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : (+)-Longifolene

Product Number : 62635
Brand : Aldrich

Company : Sigma-Aldrich
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USA

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : [1S-(1 α ,3 α β ,4 α ,8 α β)]-Decahydro-4,8,8-trimethyl-9-methylene-1,4-methanoazulene
(1R,2S,7S,9S)-3,3,7-Trimethyl-8-methylenetricyclo[5.4.0.0^{2.9}]undecane

Formula : C₁₅H₂₄
Molecular Weight : 204.35 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
[1S-(1α,3$\alpha$$\beta$,4$\alpha$,8$\alpha$$\beta$)]-Decahydro-4,8,8-trimethyl-9-methylene-1,4-methanoazulene			
475-20-7	207-491-2	-	-

3. HAZARDS IDENTIFICATION**Emergency Overview****OSHA Hazards**

No known OSHA hazards

HMIS Classification

Health Hazard: 0
Flammability: 1
Physical hazards: 0

NFPA Rating

Health Hazard: 0
Fire: 1
Reactivity Hazard: 0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin
Eyes
Ingestion

May be harmful if absorbed through skin. May cause skin irritation.
May cause eye irritation.
May be harmful if swallowed.

4. FIRST AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point 101.00 °C (213.80 °F) - closed cup

Ignition temperature no data available

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid breathing vapors, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods for cleaning up

Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: 2 - 8 °C

Light sensitive. Store under inert gas. Air sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

For prolonged or repeated contact use protective gloves.

Eye protection

Safety glasses

Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid, clear
Colour	colourless

Safety data

pH	no data available
Melting point	no data available
Boiling point	254 °C (489 °F) at 941 hPa (706 mmHg)
Flash point	101.00 °C (213.80 °F) - closed cup
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Density	0.928 g/mL at 25 °C (77 °F)
Water solubility	no data available

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - > 5,000 mg/kg

LD50 Dermal - rabbit - > 5,000 mg/kg

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.
Ingestion	May be harmful if swallowed.

Additional Information

RTECS: PB7724500

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

Toxicity to fish	mortality NOEC - Pimephales promelas (fathead minnow) - 0.9 mg/l - 7 d LC50 - Pimephales promelas (fathead minnow) - 10.2 mg/l - 96 h Growth inhibition LOEC - Pimephales promelas (fathead minnow) - 0.9 mg/l - 7 d
Toxicity to daphnia and other aquatic invertebrates.	EC50 - Daphnia pulex (Water flea) - 0.08 mg/l - 48 h

Further information on ecology

no data available

13. DISPOSAL CONSIDERATIONS

Product

Observe all federal, state, and local environmental regulations.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION**OSHA Hazards**

No known OSHA hazards

DSL Status

All components of this product are on the Canadian DSL list.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

[1S-(1 α ,3 $\alpha\beta$,4 α ,8 $\alpha\beta$)]-Decahydro-4,8,8-trimethyl-9-methylene-1,4-methanoazulene	CAS-No. 475-20-7	Revision Date
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New Jersey Right To Know Components

[1S-(1 α ,3 $\alpha\beta$,4 α ,8 $\alpha\beta$)]-Decahydro-4,8,8-trimethyl-9-methylene-1,4-methanoazulene	CAS-No. 475-20-7	Revision Date
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California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION**Further information**

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