

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : (S)-(+)-Carvone
 Product Number : 435759
 Brand : Aldrich
 Company : Sigma-Aldrich Canada, Ltd
 2149 Winston Park Drive
 OAKVILLE ON L6H 6J8
 CANADA
 Telephone : +1 9058299500
 Fax : +1 9058299292
 Emergency Phone # : 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : (+)-Carvone
 (S)-5-Isopropenyl-2-methyl-2-cyclohexenone
 p-Mentha-6,8-dien-2-one

Formula : C₁₀H₁₄O
 Molecular Weight : 150.22 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
(S)-2-Methyl-5-(1-methylvinyl)cyclohex-2-en-1-one			
2244-16-8	218-827-2	-	-

3. HAZARDS IDENTIFICATION**WHMIS Classification**

Not WHMIS controlled.

Not WHMIS controlled.

HMIS Classification

Health Hazard: 0
 Flammability: 1
 Physical hazards: 0

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.

4. FIRST AID MEASURES

Aldrich - 435759

Sigma-Aldrich Corporation
www.sigma-aldrich.com

Page 1 of 9

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 : 98 °C (208 °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.

hygroscopic

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

Aldrich - 435759

Sigma-Aldrich Corporation
www.sigma-aldrich.com

Page 2 of 9

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form : liquid, clear
 Colour : light yellow

Safety data

pH : no data available
 Melting point : no data available
 Boiling point : 96 - 98 °C (205 - 208 °F) at 13 hPa (10 mmHg) - lit.
 Flash point : 98 °C (208 °F) - closed cup
 Ignition temperature : no data available
 Lower explosion limit : no data available
 Upper explosion limit : no data available
 Density : 0.96 g/mL at 25 °C (77 °F)
 Water solubility : no data available

10. STABILITY AND REACTIVITY**Storage stability**

Stable under recommended storage conditions.

Conditions to avoid

Avoid moisture.

Materials to avoid

Strong oxidizing agents, Strong reducing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

LD50 Dermal - rabbit - 3,840 mg/kg

Remarks: Prolonged skin contact may cause skin irritation and/or dermatitis.

Irritation and corrosion

Skin - rabbit - Mild skin irritation - 24 h

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.

Genotoxicity in vitro - Hamster - ovary

Cytogenetic analysis

Aldrich - 435759

Sigma-Aldrich Corporation
www.sigma-aldrich.com

Page 3 of 9

Genotoxicity in vitro - Hamster - ovary
Sister chromatid exchange**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: OS8670000

12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)**

no data available

Ecotoxicity effects

no data available

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**DSL Status**

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

WHMIS Classification

Not WHMIS controlled.

Not WHMIS controlled.

16. OTHER INFORMATION**Further information**

Copyright 2009 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

Aldrich - 435759

Sigma-Aldrich Corporation
www.sigma-aldrich.com

Page 4 of 9

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Aldrich - 435759

Sigma-Aldrich Corporation
www.sigma-aldrich.com

Page 5 of 9