

## MATERIAL SAFETY DATA SHEET

## D(+)-Carvone

## Section 1 - Chemical Product and Company Identification

<b>MSDS Name:</b>	D(+)-Carvone
<b>Catalog Numbers:</b>	15068-0000, 15068-0050, 15068-0250, 15068-1000, 37784-0000, 37784-0250, 37784-1000
<b>Synonyms:</b>	(S)-(+)-p-Mentha-6,8-dien-2-one
<b>Company Identification:</b>	Acros Organics BVBA Janssen Pharmaceuticaaan 3a 2440 Geel, Belgium
<b>Company Identification: (USA)</b>	Acros Organics One Reagent Lane Fair Lawn, NJ 07410
<b>For information in the US, call:</b>	800-ACROS-01
<b>For information in Europe, call:</b>	+32 14 57 52 11
<b>Emergency Number, Europe:</b>	+32 14 57 52 99
<b>Emergency Number US:</b>	201-796-7100
<b>CHEMTREC Phone Number, US:</b>	800-424-9300
<b>CHEMTREC Phone Number, Europe:</b>	703-527-3887

## Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
2244-16-8	D(+)-Carvone	98%	218-827-2

**Hazard Symbols:** None listed

**Risk Phrases:** None listed

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

*Not available*

## Potential Health Effects

<b>Eye:</b>	May cause eye irritation.
<b>Skin:</b>	May cause skin irritation.
<b>Ingestion:</b>	May cause irritation of the digestive tract.
<b>Inhalation:</b>	May cause respiratory tract irritation. May be harmful if inhaled.
<b>Chronic:</b>	

## Section 4 - First Aid Measures

<b>Eyes:</b>	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
<b>Skin:</b>	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** Get medical aid. Wash mouth out with water.  
**Inhalation:** Remove from exposure and move to fresh air immediately.

**Notes to Physician:**

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustible liquid.  
**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.  
**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

### Section 7 - Handling and Storage

**Handling:** Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing.  
**Storage:** Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Store under nitrogen.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**  
Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits**  
CAS# 2244-16-8:

#### Personal Protective Equipment

**Eyes:** Wear chemical splash goggles.  
**Skin:** Wear appropriate protective gloves to prevent skin exposure.  
**Clothing:** Wear appropriate protective clothing to prevent skin exposure.  
**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### Section 9 - Physical and Chemical Properties

**Physical State:** Clear liquid  
**Color:** colorless - light yellow  
**Odor:** characteristic odor - strong odor  
**pH:** Not available  
**Vapor Pressure:** Not available  
**Viscosity:** Not available  
**Boiling Point:** 230 deg C ( 446.00°F)  
**Freezing/Melting Point:** Not available  
**Autoignition Temperature:** Not available  
**Flash Point:** 97 deg C ( 206.60 deg F)  
**Explosion Limits: Lower:** Not available

**Explosion Limits: Upper:** Not available  
**Decomposition Temperature:** Not available  
**Solubility in water:** Insoluble  
**Specific Gravity/Density:** 0.956  
**Molecular Formula:** C10H14O  
**Molecular Weight:** 150.22

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Incompatible materials.  
**Incompatibilities with Other Materials** Strong oxidizing agents, strong reducing agents.  
**Hazardous Decomposition Products** Carbon monoxide, carbon dioxide.  
**Hazardous Polymerization** Will not occur.

### Section 11 - Toxicological Information

**RTECS#:** CAS# 2244-16-8: OS8670000  
**LD50/LC50:** RTECS:  
**CAS# 2244-16-8:** Draize test, rabbit, skin: 500 mg/24H Mild;  
Oral, rat: LD50 = 3710 uL/kg;  
Skin, rabbit: LD50 = 4 mL/kg;  
Other:  
**Carcinogenicity:** D(+)-Carvone - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
**Other:** See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

### Section 12 - Ecological Information

Not available

### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

### Section 14 - Transport Information

	<b>IATA</b>	<b>IMO</b>	<b>RID/ADR</b>
<b>Shipping Name:</b>	Not regulated.	Not regulated.	Not regulated.
<b>Hazard Class:</b>			
<b>UN Number:</b>			
<b>Packing Group:</b>			

### Section 15 - Regulatory Information

#### European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 2244-16-8: Not available

Canada

CAS# 2244-16-8 is listed on Canada's DSL List

**US Federal**

TSCA

CAS# 2244-16-8 is listed on the TSCA Inventory.

**Section 16 - Other Information**

**MSDS Creation Date:** 8/26/1996

**Revision #3 Date** 5/11/2006

**Revisions were made in Sections:** 9

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