

Revision Date 23-Mar-2012

Revision Number 2

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### Product Identifier

Product Description:

L(-)-Fenchone

Cat No.

188110000; 188110500; 188112500

Synonyms

L(-)-1,3,3-Trimethyl-2-norbornanone; L(-)-1,3,3-Trimethylbicyclo[2.2.1]heptan-2-one

### Relevant identified uses of the substance or mixture and uses advised against

Recommended Use

Laboratory chemicals

Uses advised against

No Information available

### Details of the supplier of the safety data sheet

#### Company

Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

E-mail address

begel.sdsdesk@thermofisher.com

### Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300

CHEMTREC Phone Number, Europe: 001-703-527-3887

## SECTION 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Flammable liquids.

Category 3

### Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

R-phrases(s)

R10 - Flammable

### Label Elements

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## SECTION 2. HAZARDS IDENTIFICATION



### Signal Word

### Warning

### Hazard Statements

H226 - Flammable liquid and vapor

### Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

### Other Hazards

No information available.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimethyl-, (1R)- 7787-20-4	EEC No. 232-107-5	> 98	7787-20-4	R10;	Flam. Liq. 3 (H226)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

## SECTION 4. FIRST AID MEASURES

### Description of first aid measures

#### Eye Contact

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

#### Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention. Take off contaminated clothing and shoes immediately.

#### Ingestion

Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician immediately. If possible drink milk afterwards.

#### Inhalation

Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.

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**Notes to Physician**

Treat symptomatically

**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Flammable.

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.. Sweep up or vacuum up spillage and collect in suitable container for disposal.

**SECTION 7. HANDLING AND STORAGE****Precautions for Safe Handling**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous.

**Conditions for safe storage, including any incompatibilities**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

**Specific End Uses**

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

#### Derived No Effect Level (DNEL)

No information available.

#### Predicted No Effect Concentration (PNEC)

No information available.

### Exposure controls

#### Engineering Measures

Ensure adequate ventilation, especially in confined areas Ventilation systems

#### Personal protective equipment

##### Eye Protection

Safety glasses with side-shields Goggles

##### Hand Protection

Protective gloves

##### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

##### Respiratory Protection

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 Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

#### Environmental exposure controls

No information available.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Physical State

Liquid

#### Appearance

Light yellow

#### odor

odorless

#### pH

No information available.

#### Boiling Point/Range

192 - 194°C / 377.6 - 381.2°F @ 760 mmHg

#### Melting Point/Range

5°C / 41°F

#### Flash Point

52°C / 125.6°F

#### Autoignition Temperature

No information available.

#### Water Solubility

Insoluble

#### Specific Gravity

0.940

#### Molecular Formula

C<sub>10</sub> H<sub>16</sub> O

#### Molecular Weight

152.24

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

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## Chemical Stability

Stable under normal conditions.

## Possibility of Hazardous Reactions

<b>Hazardous Polymerization</b>	No information available.
<b>Hazardous Reactions .</b>	No information available.

## Conditions to Avoid

Incompatible products.

## Incompatible Materials

Oxidizing agents, Strong oxidizing agents.

## Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

# SECTION 11. TOXICOLOGICAL INFORMATION

## Information on Toxicological Effects

### Acute Toxicity

<b>Product Information</b>	No acute toxicity information is available for this product
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### **Component Information**

### Chronic Toxicity

<b>Carcinogenicity</b>	There are no known carcinogenic chemicals in this product
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<b>Sensitization</b>	No information available.
<b>Mutagenic Effects</b>	No information available
<b>Reproductive Effects</b>	No information available.
<b>Developmental Effects</b>	No information available.
<b>Target Organs</b>	No information available.
<b>Endocrine Disruptor Information</b>	None known

# SECTION 12. ECOLOGICAL INFORMATION

## Toxicity

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**Ecotoxicity effects**

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available.

**Mobility in soil**

No information available.

**Results of PBT and vPvB assessment**

**Other adverse effects**

No information available

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Waste from Residues / Unused Products**

Dispose of in accordance with local regulations

**Contaminated Packaging**

Empty containers should be taken to local recyclers for disposal

## SECTION 14. TRANSPORT INFORMATION

**IMDG/IMO**

UN-No	1224
Hazard Class	3
Packing Group	III
Proper Shipping Name	KETONES, LIQUID, N.O.S.

**ADR**

UN-No	1224
Hazard Class	3
Packing Group	III
Proper Shipping Name	KETONES, LIQUID, N.O.S.

**IATA**

UN-No	1224
Hazard Class	3
Packing Group	III

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## SECTION 14. TRANSPORT INFORMATION

Proper Shipping Name KETONES, LIQUID, N.O.S.\*

## SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

### International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimethyl-, (1R)-	232-107-5	-		X	X	-	X	-	X	-	-

### Legend

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

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

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

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**CHINA** - China Inventory of Existing Chemical Substances

**AICS** - Inventory of Chemical Substances

**KECL** - Existing and Evaluated Chemical Substances

### Chemical Safety Assessment

## SECTION 16. OTHER INFORMATION

### Full text of R-phrases referred to under sections 2 and 3

R10 - Flammable

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Revision Summary

Reason for revision Not applicable

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

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**SECTION 16. OTHER INFORMATION****Disclaimer**

The information provided on this 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet