

SAFETY DATA SHEET ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

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

1.1 Product identifier

Product Name	L-Carnitine Fumarate
Chemical name	<i>(R)-(3-carboxy-2-hydroxypropyl)trimethylammonium hydrogen fumarate</i>
Other names	Not applicable
CAS No.	90471-79-7
EC No.	291-749-4
REACH Registration No.	Not applicable

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

Identified Use(s)	Dietary supplement
Uses Advised Against	None known

1.3 Details of the supplier of the safety data sheet

Manufacturer

Name of Manufacturer	Liaoning Konceptnutra Co. Ltd.
Address of Manufacturer	No. 100 Xianghuia Road Benxi Economic Development Zone Liaoning 117004 China

Telephone: +86-24-47508002

E-mail: meigg@konceptnutra.com
sales@konceptnutra.com

Office hours: Not 24 hours

Supplier

Company Identification: As manufacturer

1.4 Emergency telephone number

Emergency Phone No. +86-24-47508002
0845 46 47 (NHS DIRECT – UK only)

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008	Skin irritation	Category 2
	Eye Irritation	Category 2

2.2 Label elements

according to Regulation (EC) No. 1272/2008 (CLP)

Product Name: L-Carnitine Fumarate

Hazard Pictogram(s)



Signal Word(s): Warning

Hazard Statement(s): H315: Causes skin irritation.

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H319: Causes serious eye irritation.

Precautionary Statement(s)

P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352: IF ON SKIN: Wash with plenty of soap and water.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P405: Store locked up.

2.3 Other hazards

2.4 Additional Information

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
L-Carnitine Fumarate <i>(R)-(3-carboxy-2-hydroxypropyl)trimethylammonium hydrogen fumarate</i>	90471-79-7	291-749-4	98%	Skin Irrit. 2 H315 Eye Irrit. 2 H319	

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation Obtain medical attention. Remove patient from exposure. Keep patient at rest and give oxygen if breathing difficult. Apply artificial respiration if necessary.

Skin Contact Obtain medical attention. Remove contaminated clothing immediately and wash affected skin with soap and water.

Eye Contact Obtain medical attention. If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes.

Ingestion Obtain medical attention. If swallowed, rinse mouth with water (only if the person is conscious).

4.2 Most important symptoms and effects, both acute and delayed

Irritation, Coughing, Increased difficulty in breathing.

4.3 Indication of any immediate medical attention and special treatment needed

Increased difficulty in breathing.

5. SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media Extinguish with carbon dioxide, dry chemical, foam or waterspray. As appropriate for surrounding fire.

Unsuitable extinguishing media Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Combustion or thermal decomposition will evolve toxic and irritant vapours.(Nitrogen

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oxides)

5.3 Advice for fire-fighters

Self-contained breathing apparatus to be worn if involved in fire. Water spray should be used to cool containers.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Put on protective clothing. Avoid inhalation of dusts.

6.2 Environmental precautions

Do not allow to enter drains, sewers or watercourses.

6.3 Methods and material for containment and cleaning up

Vacuum or sweep up spilled material. Avoid generation of dust. Transfer to a lidded container for disposal or recovery.

6.4 Reference to other sections

See also Section 8. (Exposure controls/Personal protection) & 13 (Disposal)

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of dusts. General hygiene measures for the handling of chemicals are applicable.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed, in a cool, dry, well ventilated place. Keep away from heat and sources of ignition.

Storage temperature

2°C ~30°C

Storage life

2 Year(s)

Incompatible materials

Strong oxidising agents

Other information

Avoid prolonged storage. Use as soon as possible

7.3 Specific end use(s)

Dietary supplement

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

WEL: Workplace Exposure Limit (UK HSE EH40-2005)

LTEL (8 hr TWA mg/m³)

10 mg/m³ Inhalable Dust

LTEL (8 hr TWA mg/m³)

4 mg/m³ Respirable Dust

8.2 Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction if dust is likely to be evolved.

8.2.2. Personal protection equipment



Eye Protection

Safety spectacles with side protection (EN166).

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Skin protection

Apron or other light protective clothing, boots and plastic or rubber gloves.(EN374-3)



Respiratory protection

Where engineering controls are not fitted or inadequate wear suitable respiratory protective equipment. A suitable dust mask (EN149 FFP3) or dust respirator with filter type P (EN143 or EN405 P3) may be appropriate.

8.2.3. Environmental Exposure Controls Do not allow to enter drains, sewers or watercourses.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Crystalline
Colour	White.
Odour	Not available
Odour Threshold (ppm)	Not available
pH	3 -4 (1% solution in water)
Melting Point (°C)	Not available
Initial boiling point (°C)	Not available
Flash Point	Not applicable. Measurement not scientifically justified
Evaporation rate	Not applicable. Measurement not scientifically justified
Flammability (solid, gas)	Non-flammable
Flammable Limits	Not applicable. Measurement not scientifically justified
Vapour Pressure (hPa)	1.4E-8 Pa at 25 degC (Carnitine base calculated)
Vapour Density (Air=1)	Not applicable. Measurement not scientifically justified
Density (kg/m ³)	640 at 20 degC
Solubility(ies)	Solubility (Water) : Very soluble Solubility (Other) : Soluble in: Ethanol
Partition Coefficient	Log Pow = -5.48 (calculated)
Auto Ignition Point (°C)	Not applicable. Measurement not scientifically justified
Decomposition Temperature (°C)	> 355 degC
Viscosity (mPa. s)	Not applicable. Measurement not scientifically justified
Explosive properties	Not explosive
Oxidising properties	Not oxidising

9.2 Other information

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	This product is hygroscopic.
10.2 Chemical Stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	None known
10.4 Conditions to avoid	Protect from moisture.
10.5 Incompatible materials	Strong oxidising agents

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10.6 Hazardous decomposition product(s) Nitrogen oxides

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	LD50 : > 5 000 mg/kg (rat)
Acute toxicity - Skin Contact	No information available
Acute toxicity - Inhalation	No information available
Skin corrosion/irritation	Dust may cause irritation
Serious eye damage/irritation	Dust may have irritant effect on eyes.
Skin sensitization data	It is not a skin sensitizer. (Carnitine base calculated)
Respiratory sensitization data	Does not cause respiratory sensitization.
Germ cell mutagenicity	There is no evidence of mutagenic potential.
Carcinogenicity	No evidence of carcinogenicity.
Reproductive toxicity / Lactation	No evidence of reproductive effects.
STOT - single exposure	Inhalation : Irritation of the respiratory tract. Coughing
STOT - repeated exposure	No known long term hazards are associated with the use of this material.
Aspiration hazard	Not applicable. Measurement not scientifically justified

11.2 Other information :

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity - Aquatic invertebrates	No information available
Toxicity - Fish	No information available
Toxicity - Algae	EC50 : 1042 mg/l (Raphidocelis subcapitata)(Carnitine base calculated)
Toxicity - Sediment Compartment	No information available
Toxicity - Terrestrial Compartment	No information available
12.2. Persistence and Degradation	Readily biodegradable.
12.3. Bioaccumulative potential	The product has no potential for bioaccumulation.
12.4. Mobility in soil	The product is predicted to have high mobility in soil.
12.5. Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
12.6 Other adverse effects	None known

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Consult an accredited waste disposal contractor or the local authority for advice.

13.2 Additional Information

14. SECTION 14: TRANSPORT INFORMATION

NOT CLASSED AS DANGEROUS FOR TRANSPORT.

15. SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
European Regulations - Authorisations and/or Restrictions On Use

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Candidate List of Substances of Very High Concern for Authorisation	Not listed
REACH: ANNEX XIV list of substances subject to authorisation	Not listed
REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not listed
Community Rolling Action Plan (CoRAP) Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants	Not listed
Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer	Not listed
Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals	Not listed
Other	EH40/2005 Workplace Exposure Limits
15.2 Chemical Safety Assessment	A REACH chemical safety assessment has not been carried out.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions #1 to #16 or new statements:

LEGEND



Hazard Pictogram(s)

Hazard Statement(s)
H315: Causes skin irritation.
H319: Causes serious eye irritation.

Precautionary Statement(s)
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P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405: Store locked up.

References
Danish (Q)SAR Database (National Food Institute, Denmark)
Estimation Programs Interface (EPI) software (US Environmental Protection Agency)
European Chemicals Agency

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European Regulations and Directives
International Agency for Research on cancer
Occupational Safety and Health Administration
Published chemical directories
Suppliers' safety data sheets
UK Health and Safety Executive

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