


SAFETY DATA SHEET

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH) & 1272/2008 (CLP)

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

1.1 Product identifier	L-Carnitine Base
GHS Product Identifier	<i>(R)-(3-carboxy-2-hydroxypropyl)trimethylammonium hydroxide</i>
Chemical Name	
Other names	
CAS No.	541-15-1
EINECS No.	208-768-0
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	
Company Identification	Liaoning Konceptnutra Co. Ltd No. 100 Xianghuai Road Benxi Economic Development Zone Liaoning 117004 CHINA
Telephone	+86-24-47508002
E-Mail (competent person)	meigq@konceptnutra.com sales@konceptnutra.com
1.4 Emergency telephone number	
Emergency Phone No.	+86-24-47508002

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	
2.1.1 Regulation (EC) No. 1272/2008 (CLP)	Skin Irritation Category 2 Eye Irritation Category 2
2.1.2 Directive 67/548/EEC & Directive 1999/45/EC	Xi Irritant R36/38: Irritating to eyes and skin.
2.2 Label elements	
2.2.1 Label elements	According to Regulation (EC) No. 1272/2008 (CLP)
GHS Product Identifier	L-Carnitine Base
Hazard pictogram(s)	
Signal word(s)	Warning
Hazard statement(s)	H315: Causes skin irritation. 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 victim to fresh air and keep at rest in a position 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.

2.2.2 Label elements

According to Directive 67/548/EEC & Directive 1999/45/EC
Not applicable

2.3 Other hazards

2.4 Additional Information

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

EC Classification No. 1272/2008

Hazardous ingredient(s)	%W/W	CAS No.	EC No.	Hazard statement(s)
L-Carnitine Base (R)-(3-carboxy-2-hydroxypropyl)trimethylammonium hydroxide	98 %	541-15-1	208-768-0	Skin Irrit. 2 H315 Eye Irrit. 2 H319

EC Classification No. 67/548/EEC

Hazardous ingredient(s)	%W/W	CAS No.	EC No.	Classification and Risk Phrases
L-Carnitine Base (R)-(3-carboxy-2-hydroxypropyl)trimethylammonium hydroxide	98 %	541-15-1	208-768-0	Xi - Irritant R36/38

3.3 Additional Information

For full text of H/P phrases see section 16.

4. SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Inhalation

Obtain medical attention. Remove patient from exposure. Give oxygen if breathing difficult. Apply artificial respiration if necessary.

Skin Contact

Obtain medical attention. Remove contaminated clothing immediately and wash affected skin with water or 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 immediate 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 the immediate medical attention and special treatment needed	Increased difficulty in breathing.

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media	
Suitable Extinguishing Media	Extinguish with carbon dioxide, dry chemical, alcohol resistant 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 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. To be disposed of as hazardous waste.
6.4 Reference to other sections	See Section: 8 (Exposure controls / PPE) & 13 (Disposal)

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of dusts. Follow the principles of good occupational hygiene to control personal exposures.
7.2 Conditions for safe storage, including any incompatibilities	Keep container tightly closed, dry and in a cool well-ventilated place. Keep away from heat and sources of ignition.
Storage Temperature	Keep at a temperature not exceeding 25 (°C):
Storage Life	Two years.
Incompatible materials	Strong oxidising agents.
Other information	Avoid prolonged storage. Use as soon as possible.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters	
8.1.1 Occupational Exposure Limits	WEL: Workplace Exposure Limit (UK HSE EH40)
LTEL (8 hr TWA mg/m³)	10 mg/m³ (Respirable Dust)
LTEL (8 hr TWA mg/m³)	4 mg/m³ (Inhalable Dust)
8.2 Exposure controls	
8.2.1 Appropriate engineering controls	Provide adequate ventilation, including appropriate local extraction, to ensure that the occupational exposure limit is not exceeded.
8.2.2 Personal protection equipment	
Eye/face protection	Safety spectacles. Minimum standard EN166.



Skin protection (Hand protection/ Other)



Plastic or rubber gloves
Minimum standard EN374-3.
Apron or other light protective clothing and boots.

Respiratory protection



Provide adequate ventilation, including appropriate local extraction. Where engineering controls are not fitted or inadequate wear suitable respiratory protective equipment. A suitable dust mask or dust respirator with filter type P (EN143 or EN405) may be appropriate.

Other

General hygiene measures for the handling of chemicals are applicable.

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(current USP37 grade) properties

Appearance	Crystalline.
Colour	White.
Odour	Not available.
Odour Threshold (ppm)	Not available
pH (Value)	5 – 9 (5% Solution in water)
Melting Point (°C) / Freezing Point (°C)	188 degC (Calculated)
Boiling point/boiling range (°C):	Not available.
Flash Point (°C) [Closed cup]	Not applicable.
Evaporation rate (Butyl acetate = 1)	Not applicable.
Explosive limit ranges	Not applicable.
Vapour Pressure (Pa)	1.4E-8 Pa at 25 degC (Calculated)
Vapour Density (Air=1)	Not applicable.
Density (g/ml)	0.64 at 20 degC
Solubility (Water)	Very soluble.
Solubility (Other)	Soluble in: Ethanol
Partition Coefficient (n-Octanol/water)	Log Pow = -5.48 (Calculated)
Auto Ignition Temperature (°C)	Not applicable.
Decomposition Temperature (°C)	> 355 degC
Viscosity (mPa.s)	Not applicable.
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.
10.6 Hazardous Decomposition Product(s)	Nitrogen oxides

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Substances

Acute toxicity

Ingestion

LD50 :> 5000 mg/kg (rat)

Inhalation (4 hrs)

No information available

Skin Contact

No information available.

Skin corrosion/irritation

Dust may cause irritation.

Serious eye damage/irritation

Dust may have irritant effect on eyes.

Respiratory or skin sensitization

It is not a skin sensitiser. (Calculated)

Mutagenicity

There is no evidence of mutagenic potential.

Carcinogenicity

No evidence of carcinogenicity.

Reproductive toxicity

No evidence of reproductive toxicity.

STOT-single exposure

Inhalation : Dust is irritant to the respiratory tract.

Coughing

Ingestion : Low oral toxicity, but ingestion may cause irritation of the gastrointestinal tract.

STOT-repeated exposure

No known long term hazards are associated with the use of this material.

11.2 Other information

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

(Fish) (96hrs)

No information available.

(Daphnia magna) (48hrs)

No information available.

(Algae) (72hrs)

EC50 : 1042 mg/l (Selenastrum) (Calculated)

12.2 Persistence and degradability

Readily biodegradable.

12.3 Bioaccumulative potential (96 hrs)

The product has no potential for bioaccumulation.

12.4 Mobility in soil

The substance 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

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Material to be disposed of as hazardous waste. Incinerate under approved controlled conditions, using incinerators suitable for the disposal of noxious chemical waste. Consult an accredited waste disposal contractor or the local authority for advice.

13.2 Additional Information

14. SECTION 14: TRANSPORT INFORMATION

14.1 Land transport (ADR/RID)

UN number

Not classified as dangerous for transport.

Proper Shipping Name

Not applicable.

Transport hazard class(es)

Not applicable.

Packing Group

Not applicable.

14.2 Sea transport (IMDG)

UN number

Not classified as dangerous for transport.

Proper Shipping Name

Not applicable.

Transport hazard class(es)

Not applicable.

Packing Group

Not applicable.

EmS:

F-A, S-B

Marine Pollutant

Not classified as a Marine Pollutant.

14.3 Air transport (ICAO/IATA)

UN number

Proper Shipping Name

Transport hazard class(es)

Packing Group

Not classified as dangerous for transport.

Not applicable.

Not applicable.

Not applicable.

15. SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1 EU regulations**

Authorisations and/or restrictions on use

None anticipated

15.1.2 National regulations

None assigned

15.2 Chemical Safety Assessment

No Chemical Safety Assessment (CSA) has been carried out

16. SECTION 16: OTHER INFORMATION**The following sections contain revisions or new statements:**

Sections #1, #2 and #3 (Company information updated and inhalation hazard revised)

References:

Danish (Q)SAR Database (National Food Institute, Denmark)

Estimation Programs Interface (EPI) Suite of software (US Environmental Protection Agency)

European Chemicals Agency

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

Risk Phrases

R36/38: Irritating to eyes and skin.

Hazard statement(s)

H315: Causes skin irritation.

H319: Causes serious eye irritation

Precautionary statement(s)

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash (hands and exposed skin) thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

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 victim to fresh air and keep at rest in a position 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.

P312: Call a POISON CENTRE or doctor if you feel unwell.

P332 + P313: If skin irritation occurs: Get medical advice/attention.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P362: Take off contaminated clothing and wash before reuse.

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents/container to: Licensed waste contractor

Additional Information

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose.

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