

A Division of Spectrum Chemical Mfg. Corp.

Dear Customer,

This File Contains Both The ANSI Material Safety Data Sheet and The GHS Safety Data Sheet For The Same Product

Spectrum is currently transitioning all chemical product labeling from the ANSI format to the GHS format (see note below). In order to ensure that you receive complete labeling during the transition, we have included both the ANSI MSDS and the GHS SDS in a single file. The ANSI MSDS is given first, followed by the GHS SDS. Please use whichever matches the container label.

Why It Matters:

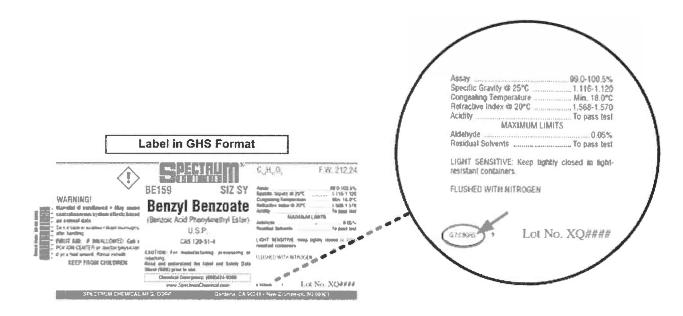
The complete precautionary labeling for this chemical consists of BOTH the label on the container AND the matching Material Safety Data Sheet (for ANSI labels) or Safety Data Sheet (for GHS labels). Both elements of the labeling [Label + (M)SDS] are written to be read and understood together, so as to provide complete precautionary information. It is intended for you to read and understood BOTH before handling or using the chemical.

<u>Picking the Right One</u>: 2 Easy Ways To Tell Whether Your Container Has an ANSI Label or a GHS Label

- 1) GHS labels: any pictogram displayed in the upper left-hand corner will be inside a red diamond. ANSI labels: pictograms, if present, will be inside individual black boxes.
- 2) GHS labels: on the bottom of the right-hand panel of the label, locate the Lot Number. Directly to the left will be a string of control characters, followed by a single letter. For GHS labels, the string of characters will end in "GHS:"



CORPORATE OFFICES
14422 South San Pedro Street
Gardena, California 90248
PHONE 310.516.8000
FAX 310.516.9843



¹ American National Standards Institute

Sincerely,

Regulatory Affairs

² Globally Harmonized System for Hazard Communication





SAFETY DATA SHEET

Preparation Date: No data available Product identifier	Revision Date: 04/21/2015	Revision Number: G1
Product code: Product Name:	A1583 ACETYL-L-CARNITINE HYDROCHLORIDE	
Other means of identification		
Synonyms:	Acetylcarnitine L-form Hydrochloride; R-(-)2-Acetyloxy-3-c	
CAS #:	propanaminium; [R]-3-Acetoxy-4-(trimethylammonio)butyra 5080-50-2	ate
RTECS #	Not available	
CI#:	Not available	
Recommended use of the chemi	cal and restrictions on use	
Recommended use:	No information available.	
Uses advised against	No information available	
Supplier:	Spectrum Chemicals and Laboratory Products, Inc.	
	14422 South San Pedro St.	
	Gardena, CA 90248	
Order Online At:	(310) 516-8000 https://www.spectrumchemical.com	
Order Offiline At.	https://www.spectrumchemical.com	
Emergency telephone number	Chemtrec 1-800-424-9300	
Contact Person: Contact Person:	Martin LaBenz (West Coast) Ibad Tirmiz (East Coast)	
Contact Person.	ibad Tilliliz (East Coast)	
	2. HAZARDS IDENTIFICATION	
Classification		
This chemical is not considered hazard	lous by the 2012 OSHA Hazard Communication Standard (29 CFR	1910.1200)
Not a dangerous substance or mixture	according to the Globally Harmonized System (GHS)	
Not a danigorous substance of mixtare	decorating to the Grobbany Hammoniaed Gyotom (Grie)	
<u>Label elements</u>		
Not classified		

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards Not available

Product code: A1583

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Acetyl-L-carnitine Hydrochloride	5080-50-2	100	*
5080-50-2			

4. FIRST AID MEASURES

First aid measures

General Advice: Poison information centers in each State capital city can provide additional

assistance for scheduled poisons (13 1126)

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and

shoes. Get medical attention if irritation develops. Consult a physician if necessary.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention if irritation occurs. If symptoms

persist, call a physician.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an

unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms Health injuries are not known or expected under normal use.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry chemical. Water spray mist or

foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: No information available.

Specific hazards:May be combustible at high temperatures

Fine dust dispersed in air in sufficient concentrations, and in

the presence of an ignition source is a potential dust

explosion hazard

Special Protective Actions for Firefighters

Product code: A1583 Product name: ACETYL-L-CARNITINE 2 / 11

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus

pressure-demand, MSHA/NIOSH (approved or equivalent)

and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes

and clothing. Avoid dust formation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering

drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containmentStop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning upSweep up and shovel into suitable containers for disposal. Clean contaminated

surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapours/dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible materials. Hygroscopic. Do not store above 8°C/46.4°F. Keep refrigerated.

Incompatible Materials:

No special restrictions on storage with other products

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
	None	None	None	None
Acetyl-L-carnitine Hydrochloride - 5080-50-2				

Canada

Components	Alberta	British Columbia	Ontario	Quebec

	None	None	None	None
Acetyl-L-carnitine Hydrochloride -				
5080-50-2				

Australia and Mexico

Components	Australia	Mexico
Acetyl-L-carnitine Hydrochloride	None	None
5080-50-2		

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Product code: A1583

Eye protection: Safety glasses. Safety glasses with side-shields.

Skin and body protection: Chemical resistant apron. Gloves. Long sleeved clothing.

Respiratory protection: Effective dust mask. Wear respirator with dust filter...

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and

immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

4 / 11

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:Appearance:Color:Solid.Crystalline powder.White.

Odor: Taste Molecular/Formula weight:

No information available No information available 239.69

Formula:Flash point (°C):Flashpoint (°C/°F):C9H17NO4•HCINo data availableNo information available.

Flash Point Tested according to: Lower Explosion Limit (%): Upper Explosion Limit (%):

Not available No information available No information available

Autoignition Temperature (°C/°F): pH: Melting point/range(°C/°F):

No information available No information available 187°-189°C/368.6°-372.2°F

Boiling point/range(°C/°F): Decomposition temperature(°C/°F): Bulk density:

No information available No information available No information available

Specific gravity: Density (g/cm3): Vapor pressure @ 20°C (kPa):

Evaporation rate: Vapor density: VOC content (g/L):
No information available

No information available

Odor threshold (ppm): Partition coefficient Viscosity:

No information available (n-octanol/water): No information available

No information available

Miscibility: Solubility:

No information available
No information available

10. STABILITY AND REACTIVITY

Reactivity

No information available

Chemical stability

Stability: Hygroscopic. Stable at normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials. Exposure to moisture.

Incompatible Materials: No information available

Hazardous decomposition products: No information available

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Ingestion. Inhalation.

Product code: A1583 Product name: ACETYL-L-CARNITINE 5 / 11

Acute Toxicity

Component Information

Acetyl-L-carnitine Hydrochloride - 5080-50-2

LD50/oral/rat = No information available
LD50/oral/mouse = No information available
LD50/dermal/rat = No information available
LD50/dermal/rabbit = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available

Other LD50 or LC50information = No information available

Product Information

LD50/oral/rat =

VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =

Value - Acute Tox Oral = No information available

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat

VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

Inhalation May cause irritation of respiratory tract.

Ingestion Health injuries are not known or expected under normal use.

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity No information available

Sensitization: No information available

Mutagenic Effects: No information available

Product code: A1583 Product name: ACETYL-L-CARNITINE HYDROCHLORIDE

TYL-L-CARNITINE 6 / 11

Carcinogenic effects: Not considered carcinogenic

Components	ACGIH - Carcinogens	IARC	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Acetyl-L-carnitine Hydrochloride	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: No information available **Developmental Effects:** No information available **Teratogenic Effects:** No information available

Specific Target Organ Toxicity

STOT - single exposure No information available STOT - repeated exposure No information available **Target Organs:** No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available No information available Bioaccumulative potential: **Mobility:** No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Acetyl-L-carnitine Hydrochloride	None	None	None	None

14. TRANSPORT INFORMATION

DOT

Product code: A1583 Product name: ACETYL-L-CARNITINE

14. TRANSPORT INFORMATION

UN-No: Not Regulated

Proper Shipping Name: No information available Hazard Class: No information available Subsidiary Risk: No information available

Packing Group: None

ERG No: No information available

Marine Pollutant No data available

DOT RQ (lbs): No information available

TDG (Canada)

UN-No: Not Regulated

Proper Shipping Name:
Hazard Class:
Subsidiary Risk:
Packing Group:
No information available

ADR

UN-No: Not Regulated

Proper Shipping Name:
Hazard Class:
Packing Group:
Subsidiary Risk:
Classification Code:
Description:
No information available

IMO / IMDG

UN-No: Not Regulated

Proper Shipping Name: No information available **Hazard Class:** No information available **Subsidiary Risk:** No information available Packing Group: No information available **Description:** No information available IMDG Page: No information available **Marine Pollutant** No information available MFAG: No information available **Maximum Quantity:** No information available

RID

UN-No: Not Regulated

Proper Shipping Name:
Hazard Class:
Subsidiary Risk:
Packing Group:
Classification Code:
Description:
No information available

ICAO

Product code: A1583

UN-No: Not Regulated

Proper Shipping Name:
Hazard Class:
Subsidiary Risk:
Packing Group:
No information available

14. TRANSPORT INFORMATION

IATA

UN-No: Not Regulated

Proper Shipping Name:
Hazard Class:
Subsidiary Risk:
Packing Group:
No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Acetyl-L-carnitine Hydrochloride	Not Listed	Not present	Not present	Present (2)- 2756	Present	Not present	Not present

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive	Female Reproductive
			Toxicity	Toxicity:
Acetyl-L-carnitine Hydrochloride	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

	Substances and their	- · · · · · · · · · · · · · · · · · · ·	Section 302 Extremely Hazardous Substances and RQs	Chemical Category	Section 313 - Reporting de minimis
Acetyl-L-carnitine Hydrochloride	None	None	None	None	None

U.S. TSCA

•	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Acetyl-L-carnitine Hydrochloride	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

Non-controlled

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Product code: A1583 Product name: ACETYL-L-CARNITINE 9 / 11

Components	Canada (DSL)	Canada (NDSL)
Acetyl-L-carnitine Hydrochloride	Not Listed	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Manditory	
		Reporting	
Acetyl-L-carnitine Hydrochloride	Not listed	Not listed	

EU Classification

R-phrase(s)

R-phrase(s)

$\frac{\text{S -phrase(s)}}{\text{none}}$

Components	Classification	Concentration Limits:	Safety Phrases
Acetyl-L-carnitine Hydrochloride		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

None.

16. OTHER INFORMATION

Product code: A1583

16. OTHER INFORMATION

Product code: A1583

Revision Date: 04/21/2015 **Prepared by:** Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This

Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet





Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment
10	Health Hazard Fire Hazard 1	
	Reactivity	See Section 15.

Section 1. Chemical Product and Company Identification			Page Number: 1	
Common Name/ Trade Name	Acetyl-L-carnitine Hydrochloride	Catalog Number(s).	A1583	
		CAS#	5080-50-2	
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC.	RTECS	Not available.	
	14422 S. SAN PEDRO STREET GARDENA, CA 90248	TSCA	TSCA 8(b) inventory: No products were found.	
Commercial Name(s)	Not available.	CI#	Not available.	
Synonym	A c e t y l c a r n i t i n e L - f o r m H y d r o c h l o r i d e ; R-(-)2-Acetyloxy-3-carboxy-N,N,N-trimethyl-1-propanaminium; [R]-3-Acetoxy-4-(trimethylammonio)butyrate IN CASE OF EMER CHEMTREC (24hr)			
Chemical Name	Not available.	1		
Chemical Family	nemical Family Not available.		CALL (310) 516-8000	
Chemical Formula	Not available.			
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248			

Section 2.Composition and Information on Ingredients					
			Exposure Limits		
Name	CAS#	TWA (mg/m³)	STEL (mg/m³)	CEIL (mg/m³)	% by Weight
1) Acetyl-L-carnitine Hydrochloride	5080-50-2				100
Toxicological Data Not applicable. on Ingredients		1			

Section 3. Hazards Identification		
Potential Acute Health Effects	Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.	
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.	

Acetyl-L-carnitine Hydrochloride Page Number: 2				
Section 4. First Aid	Measures			
Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.			
Skin Contact	Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.			
Serious Skin Contact	Not available.			
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.			
Serious Inhalation	Not available.			
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.			
Serious Ingestion	Not available.			
Section 5. Fire and I	Explosion Data			
Flammability of the Product	May be combustible at high temperature.			
Auto-Ignition Temperature	Not available.			
Flash Points	Not available.			

Section 5. Fire and E.	Section 5. Fire and Explosion Data		
Flammability of the Product	May be combustible at high temperature.		
Auto-Ignition Temperature	Not available.		
Flash Points	Not available.		
Flammable Limits	Not available.		
Products of Combustion	Not available.		
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of heat.		
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.		
Special Remarks on Fire Hazards	As with most organic solids, fire is possible at elevated temperatures Material in powder form, capable of creating a dust explosion.		
Special Remarks on Explosion Hazards	Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.		
Section 6 Accidental	Rologso Mogsuros		

Section 6. Accidental Release Measures		
Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.	
Large Spill	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.	

Acetyl-L-carnitine Hydrochloride Pag		Page Number: 3
Section 7. Handling	and Storage	
Precautions	Keep away from heat. Keep away from sources of ignition. Ground all equipment contain breathe dust.	ning material. Do not
Storage	Hygroscopic. Keep container tightly closed. Keep container in a cool, well-ventilated area 8°C (46.4°F). Refrigerate.	. Do not store above

Section 8. Exposure	Section 8. Exposure Controls/Personal Protection		
Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.		
Personal Protection	Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.		
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.		
Exposure Limits	Not available.		

Physical state and appearance	Solid. (Crystalline powder.)	Odor	Not available.
		Taste	Not available.
Molecular Weight	239.69 g/mole		
pH (1% soln/water)	Not available.	Color	White.
Boiling Point	Not available.		
Melting Point	187°C (368.6°F) - 189 C.		
Critical Temperature	Not available.		
Specific Gravity	Not available.		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Not available.		

Section 10. Stability and Reactivity Data	
Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat
Incompatibility with various substances	Not available.
Corrosivity	Not available.

Continued on Next Page

Acetyl-L-carnitine Hydrochloride		Page Number: 4
Special Remarks on Reactivity	Not available.	
Special Remarks on Corrosivity	Not available.	
Polymerization	Will not occur.	

Section 11. Toxicological Information		
Routes of Entry	Inhalation. Ingestion.	
Toxicity to Animals	LD50: Not available. LC50: Not available.	
Chronic Effects on Humans	Not available.	
Other Toxic Effects on Humans	Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.	
Special Remarks on Toxicity to Animals	Not available.	
Special Remarks on Chronic Effects on Humans	Not available.	
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause skin irritation. Inhalation: May cause respiratory tract irritation. Ingestion: Expected low hazard.	

Section 12. Ecological Information		
Ecotoxicity	Not available.	
BOD5 and COD	Not available.	
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.	
Toxicity of the Products of Biodegradation	Not available.	
Special Remarks on the Products of Biodegradation	Not available.	

Section 13. Disposal Considerations

Waste Disposal

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information		
DOT Classification	Not a DOT controlled material (United States).	
Identification	Not applicable.	
Special Provisions for Transport	Not applicable.	

Continued on Next Page

DOT (Pictograms)



Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

No products were found.

Proposition 65 **Varnings**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

EINECS: This product is not on the European Inventory of Existing Commercial Chemical Substances Canada: Not listed on Canadian Domestic Substance List (DSL) or Canadian Non-Domestic Substances List

(NDSL)

China: Listed on National Inventory.

Japan: Not isted on National Inventory (ENCS). Korea: Not listed on National Inventory (KECI). Philippines: Not listed on National Inventory (PICCS).

Australia: Not isted on AICS.

Other Classifications

WHMIS (Canada) Not controlled under WHMIS (Canada).

DSCL (EEC) This product is not classified according Not applicable.

to the EU regulations.

HMIS (U.S.A.)

Health Hazard	1
Fire Hazard	1
Reactivity	0
Personal Protection	(E)

National Fire Protection Association (U.S.A.)

Health



WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment



Gloves.

Acetyl-L-carnitine Hydrochloride



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent.

Page Number: 6

Safety glasses.



Section 16. Other Information		
MSDS Code	A3091	
References	Not available.	
Other Special Considerations	Not available.	
Validated by Sonia Owen on 6/26/2007.		Verified by Sonia Owen. Printed 9/13/2007.
CALL (210) 514 9000		

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.