SAFETY DATA SHEET
.omega.-3 Hydroxy Acid HPLC Mixture

Revision: 06/25/2013

Cayman Chemical Company
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108

Section 1. Identification of the Substance/Mixture and of the

1.1 Product Code: 34003

Product Name: .omega.-3 Hydroxy Acid HPLC Mixture

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

Relevant identified uses: For research use only, not for human or veterinary use.

1.3 Details of the Supplier of the Safety Data Sheet

Company Name: Cayman Chemical Company

Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300

Alternate Emergency Contact: CHEMTREC Outside USA and Canada: +1 (703)527-3887

Information: Cayman Chemical Company +1 (734)971-3335

Web site address: www.caymanchem.com

Section 2. Hazards Identification

GHS Classification	Placard	Key word	GHS hazard phrase
Flammable Liquids, Category 2	Flame	Danger	Highly flammable liquid and vapor
Serious Eye Damage/Eye Irritation, Category 2A	Exclamation point	Warning	Causes serious eye irritation

GHS Hazard Phrases:
H225: Highly flammable liquid and vapor.
H319: Causes serious eye irritation.

GHS Precaution Phrases:
P210: Keep away from {heat/sparks/open flames/hot surfaces}. - No smoking.
P280: Wear {protective gloves/protective clothing/eye protection/face protection}.
P264: Wash {hands} thoroughly after handling.

GHS Response Phrases:
P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313: If eye irritation persists, get medical advice/attention.

GHS Storage and Disposal Phrases: Please refer to Section 7 for Storage and Section 13 for Disposal information.

2.3 Adverse Human Health Effects and Symptoms:
Causes serious eye irritation.
Material may be irritating to the mucous membranes and upper respiratory tract.
May be harmful by inhalation, ingestion, or skin absorption.
To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Target Organs: Central nervous system, Blood, Eyes, Reproductive system, Heart, Respiratory system, Liver, Skin.

LD 50 / LC 50: Please refer to Section 11.

Medical Conditions Generally Aggravated By Exposure: No data available.

Section 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
1. 5(S)-HEPE	92008-51-0	0.002 %	NA	No phrases apply.	NA
2. 12(S)-HEPE	116180-17-7	0.002 %	NA	No phrases apply.	NA

Hazardous Components (Chemical Name)	CAS #	Concentration	EC#	Risk Phrases	RTECS #
3. 15(S)-HEPE	86282-92-0	0.002 %	NA	R36/37/38	NA
4. 13(S)-HOTrE	87984-82-5	0.002 %	NA	No phrases apply.	NA
5. 15(S)-HEtrE	92693-02-2	0.002 %	NA	No phrases apply.	NA
6. Ethyl alcohol	64-17-5	99.99 %	200-578-6	R11-36	KQ6300000

Section 4. First Aid Measures

4.1 Description of First Aid Measures:

4.1.1 In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

4.1.2 In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

4.1.3 In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.

4.1.4 In Case of Ingestion: Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2 Important Symptoms and Effects, Both Acute and Delayed: May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.

4.3 Indication of any immediate medical attention and special treatment needed: No data available.

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.
Use water spray to cool fire-exposed containers.

Unsuitable Extinguishing Media: A solid water stream may be inefficient.

5.2 Flammable Properties and Hazards: Can release vapors that form explosive mixtures at temperatures at or above the flashpoint.
Container explosion may occur under fire conditions.
Emits toxic fumes under fire conditions.
Sensitive to static discharge.
Vapors can travel to a source of ignition and flash back.

Flash Pt: 14.00 C Method Used: Closed Cup

Autoignition Pt: 363.00 C

Explosive Limits: LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C

Hazardous Combustion Products: No data available.

5.3 Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
Note: Flammable as diluted in ethanol.

Section 6. Accidental Release Measures

6.1 Protective Precautions, Protective Equipment and Emergency Procedures: Avoid breathing vapors and provide adequate ventilation.
As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

6.2 Environmental Precautions: Take steps to avoid release into the environment, if safe to do so.

6.3 Methods and Material For Containment and Cleaning Up: Contain spill and collect, as appropriate.
Transfer to a chemical waste container for disposal in accordance with local regulations.

Section 7. Handling and Storage

7.1 Precautions To Be Taken in Handling: Avoid breathing dust/fume/gas/mist/vapours/spray.
Avoid prolonged or repeated exposure.
Keep away from sources of ignition.
Take precautionary measures against static discharge.

7.2 Precautions To Be Taken in Storing: Keep away from heat, sparks, and flame.
Keep container tightly closed.
Store in accordance with information listed on the product insert.

Other Precautions: Hygroscopic.

Hazard Label Information: Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

Section 8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. 5(S)-HEPE	92008-51-0	No data.	No data.	No data.
2. 12(S)-HEPE	116180-17-7	No data.	No data.	No data.
3. 15(S)-HEPE	86282-92-0	No data.	No data.	No data.
4. 13(S)-HOTrE	87984-82-5	No data.	No data.	No data.
5. 15(S)-HEtrE	92693-02-2	No data.	No data.	No data.
6. Ethyl alcohol	64-17-5	1000 ppm	1000 ppm	No data.

Hazardous Components (Chemical Name)	CAS #	Britain EH40	France VL	Europe
1. 5(S)-HEPE	92008-51-0	No data.	No data.	No data.
2. 12(S)-HEPE	116180-17-7	No data.	No data.	No data.
3. 15(S)-HEPE	86282-92-0	No data.	No data.	No data.
4. 13(S)-HOTrE	87984-82-5	No data.	No data.	No data.
5. 15(S)-HEtrE	92693-02-2	No data.	No data.	No data.
6. Ethyl alcohol	64-17-5	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)	No data.

Protective Equipment Summary - Hazard Label Information: Compatible chemical-resistant gloves Eye wash station in work area Lab coat Safety glasses Safety shower in work area Vent Hood

8.2.1 Engineering Controls (Ventilation etc.): Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

8.2.2.1 Eye Protection: Safety glasses

8.2.2.2 Protective Gloves: Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

8.2.2.3 Respiratory Equipment (Specify Type): NIOSH approved respirator, as conditions warrant.

Work/Hygienic/Maintenance Practices: Do not take internally.
Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.
Wash thoroughly after handling.

8.2.3 Environmental Exposure Controls: No data available.

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States: [ ] Gas [X] Liquid [ ] Solid

Appearance and Odor:	Solution
Melting Point:	No data.
Boiling Point:	No data.
Flash Pt:	14.00 C Method Used: Closed Cup
Evaporation Rate:	No data.
Explosive Limits:	LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C
Vapor Pressure (vs. Air or mm Hg):	43 MM_HG at 20.0 C
Vapor Density (vs. Air = 1):	No data.
Specific Gravity (Water = 1):	No data.
Solubility in Water:	No data.
Autoignition Pt:	363.00 C
Explosive Properties:	No data available.
Oxidizing Properties:	No data available.
9.2 Other Information	
Percent Volatile:	No data.

Section 10. Stability and Reactivity

10.1 Reactivity:	No data available.
10.2 Stability:	Unstable [ ] Stable [X]
10.3 Stability Note(s):	Stable if stored in accordance with information listed on the product insert.
10.4 Conditions To Avoid:	heat, flames and sparks
10.3 Polymerization:	Will occur [ ] Will not occur [X]
10.5 Incompatibility - Materials To Avoid:	alkali metals ammonia peroxides strong oxidizing agents
10.6 Hazardous Decomposition Or Byproducts:	carbon dioxide carbon monoxide

Section 11. Toxicological Information

11.1 Information on Toxicological Effects: The toxicological effects of this product have not been thoroughly studied.

Ethanol - Toxicity Data: Oral TDLO (man): 1.14 ml/kg; Oral TDLO (man): 650 mg/kg; Oral LD50 (rat): 7,060 mg/kg; Oral LD50 (mouse): 3,450 mg/kg; Oral LD50 (mouse): 10.5 ml/kg; Oral LD50 (rabbit): 6,300 mg/kg; Inhalation LC50 (rat): 20,000 ppm (10h); Inhalation TCLO (human): 1,800 ppm (30m); Inhalation TCLO (human): 2,500 mg/m3 (20m); Inhalation LC50 (rat): 5,900 mg/m3 (6h); Inhalation LCLO (mouse): 29,300 ppm (7h);
Ethanol - Irritation Data: Eyes (rabbit): 500 mg (24h) mild; Skin (rabbit): 20 mg (24h) moderate;

Chronic Toxicological Effects: Ethanol - Investigated as a mutagen, reproductive effector, and tumorigen.
Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.
See actual entry in RTECS for complete information.
Ethanol RTECS Number: KQ6300000

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. 5(S)-HEPE	92008-51-0	n.a.	n.a.	n.a.	n.a.
2. 12(S)-HEPE	116180-17-7	n.a.	n.a.	n.a.	n.a.
3. 15(S)-HEPE	86282-92-0	n.a.	n.a.	n.a.	n.a.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
4. 13(S)-HOTrE	87984-82-5	n.a.	n.a.	n.a.	n.a.
5. 15(S)-HEtrE	92693-02-2	n.a.	n.a.	n.a.	n.a.
6. Ethyl alcohol	64-17-5	n.a.	1	A4	n.a.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

Section 12. Ecological Information

12.1 Toxicity: Avoid release into the environment.
Runoff from fire control or dilution water may cause pollution.

Section 13. Disposal Considerations

13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT)

DOT Proper Shipping Name Ethyl Alcohol Solution

DOT Hazard Class: 3

DOT Hazard Label: FLAMMABLE LIQUID

UN/NA Number: 1170

Packing Group: II

14.1 LAND TRANSPORT (European ADR/RID)

ADR/RID Shipping Name Ethyl Alcohol Solution

UN Number: 1170

Hazard Class: 3 - FLAMMABLE LIQUID

Packing Group: II

14.3 AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Shipping Name Ethyl Alcohol Solution

UN Number: 1170

Hazard Class: 3 - FLAMMABLE LIQUID

Packing Group: II

IATA Classification: 3

Additional Transport Information: Transport in accordance with local, state, and federal regulations.

Section 15. Regulatory Information

European Community Hazard Symbol codes F: Highly Flammable; Xi: Irritant

European Community Risk and Safety Phrases

R11 - Highly flammable.
R36 - Irritating to eyes.
S16 - Keep away from sources of ignition.
S24/25 - Avoid contact with skin and eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S33 - Take precautionary measures against static discharges.
S37/39 - Wear suitable gloves and eye/face protection.

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. 5(S)-HEPE	92008-51-0	No	No	No	No
2. 12(S)-HEPE	116180-17-7	No	No	No	No

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
3. 15(S)-HEPE	86282-92-0	No	No	No	No
4. 13(S)-HOTrE	87984-82-5	No	No	No	No
5. 15(S)-HEtrE	92693-02-2	No	No	No	No
6. Ethyl alcohol	64-17-5	No	No	No	No

Other US EPA or State Lists

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. 5(S)-HEPE	92008-51-0	No	No	No	No
2. 12(S)-HEPE	116180-17-7	No	No	No	No
3. 15(S)-HEPE	86282-92-0	No	No	No	No
4. 13(S)-HOTrE	87984-82-5	No	No	No	No
5. 15(S)-HEtrE	92693-02-2	No	No	No	No
6. Ethyl alcohol	64-17-5	No	No	Inventory	No

Regulatory Information Statement: This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

Section 16. Other Information

Revision Date: 06/25/2013

Company Policy or Disclaimer

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required