



SAFETY DATA SHEET

This SDS complies with REACH 1907/2006 and 2001/58/EC, GHS REVISION 5, OSHA 29CFR 1910.1200

Section 1: Chemical Product and Company Identification

MANUFACTURER'S NAME

Heliae Development, LLC
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EMERGENCY TELEPHONE

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Safety Data Sheet Competent Person: Heliae EHS Department

DATE PREPARED: July 5, 2013

REVISION DATE: July 12, 2016

PRODUCT NAME:

Astaxanthin Oleoresin

FORMULA:

Preparation/Mixture

PRODUCT USE:

For use as an oral dietary supplement ingredient

Section 2: Hazards Identification

GHS HAZARD CLASS

Not Applicable. This product does not meet the physical, health, or environmental classification criteria of GHS (Globally Harmonized System).

Hazards not otherwise classified (HNOC) - None

HAZARD CLASSIFICATION:

Not classified as hazardous based on IATA, IMDG, and DOT.

FIRE AND EXPLOSION:

Not considered flammable or combustible.

POTENTIAL HEALTH EFFECTS:

<0 % of mixture consists of ingredients of unknown acute toxicity

APPEARANCE:

Dark red oil

Estimated NFPA Rating:

Component	Health (Blue)	Flammability (Red)	Reactivity (Yellow)	Special (White)
Astaxanthin Oleoresin	0	0	0	----

Section 3: Composition, Information on Ingredients

PRODUCT COMPOSITION	APPROX % (by WT)	CAS NO.	EC NUMBER	CANADA DSL
Algae oleoresin	Balance	--	--	N
Astaxanthin	< 20	472-61-7	207-451-4	N

- Some items on this SDS may be designated as trade secrets (TS). Bonafide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200 I 1-13.

Section 4: First Aid Measures

Description of First Aid Measures

Inhalation

Remove to fresh air. If not breathing, provide CPR (cardio pulmonary resuscitation). Get medical attention if breathing difficulty or discomfort occurs and persists.



Skin Contact
Eye Contact
Ingestion

Wash skin with soap and water as a precaution.
Flush eyes with water for at least 15 minutes.
If swallowed, do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms/Injuries after Inhalation	May cause respiratory tract irritation.
Symptoms/Injuries after Skin Contact	May be harmful if absorbed through skin. May cause skin irritation. Symptoms may include redness, drying, defatting, and cracking of the skin.
Symptoms/Injuries after Eye Contact	May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/Injuries after Ingestion	May be harmful if swallowed. May cause stomach distress, nausea, or vomiting.

Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately.

Section 5: Fire-fighting Measures

Suitable extinguishing media	Use foam, dry chemical, or carbon dioxide.
Special hazards arising from the substance or mixture	Carbon oxides
Protective actions fire-fighters	Wear standard protective equipment and self-contained breathing apparatus for firefighting if necessary.
Further information	Use water spray to cool unopened containers.

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Wear proper personal protective equipment. Avoid breathing vapors or mist.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent spills or contaminated rinse water from entering sewers or watercourses.

Methods and materials for containment and cleaning up

In case of small spills, absorb with inert materials such as earth or dry sand. Place in a chemical waste container.
In case of large spills, dike the spill, if possible. Call emergency services. Absorb the chemical.

Reference to other Sections For personal protection reference section 8. For disposal reference section 13.

Section 7: Handling and Storage

Precautions for safe handling

- Use only with adequate ventilation
- Do not inhale vapors
- Avoid spilling and releasing vapor
- Wear proper protective equipment when handling this material
- Avoid contact with skin, eyes, or clothing
- Wash hands and face after handling this material
- Appropriate container should be used for disposal
- For precautions, see section 2.

Conditions for safe storage, including any incompatibilities

- Store upright in a cool, dry place
- Keep container closed when not in use
- Do not store with strong acids or oxidizers
- Utilize chemical segregation



Keep out of reach of children
Follow all applicable local regulations for handling and storage

Section 8: Exposure Controls/Personal Protection

Control Parameters

Contains no substances with occupational exposure limit values.

Exposure controls

VENTILATION:	Always provide good general, mechanical room ventilation where this chemical/material is used.
SPECIAL VENTILATION CONTROLS:	None
RESPIRATORY PROTECTION:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or the CEN European Standards (EU). Use a NIOSH/MSHA or European Standard (EN) approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
PROTECTIVE GLOVES:	Neoprene, butyl, or nitrile rubber gloves are recommended.
EYE PROTECTION:	Recommend eye protection using safety glasses or goggles.
SKIN PROTECTION:	Suitable protective clothing to prevent skin contact
WORK/HYGIENE PRACTICES:	Avoid breathing vapor. Avoid contact with eyes. Wash hands after handling.
OTHER EQUIPMENT:	Make safety shower, eyewash stations, and hand washing equipment available in the work area.

Section 9: Physical and Chemical Properties

PRODUCT CRITERIA	
APPEARANCE - COLOR:	Dark red
PHYSICAL STATE:	Semi-solid
ODOR:	No data available
ODOR THRESHOLD	No data available
PH	Neutral (pH 6-8)
MELTING POINT/FREEZING POINT:	215-218 °C (419-424.4 °F)
INITIAL BOILING POINT AND BOILING RANGE:	No data available
FLASH POINT:	No data available
EVAPORATION RATE:	No data available
FLAMMABILITY (Solid, gas)	No data available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	Not Measured
VAPOR PRESSURE	No data available
VAPOR DENSITY (AIR = 1)	No data available
RELATIVE DENSITY (@25 °C):	No data available
SOLUBILITY IN WATER:	0.083 g/L
SOLUBILITY (Other):	6 g/L (Chloroform); 0.5 g/L (Dimethylformamide)
OXIDIZING PROPERTIES	No data available
PARTITION COEFFICIENT: n-octanol/water	No data available
AUTO IGNITION TEMPERATURE	No data available
DECOMPOSITION TEMPERATURE	No data available
VISCOSITY	No data available
EXPLOSIVE PROPERTIES	No data available

Section 10: Stability and Reactivity

Reactivity: Not reactive



Chemical Stability: Stable under recommended conation. However, high temperature and UV light decomposes the material.
 Possibility of Hazardous Reactions: Will not occur under normal temperatures and pressures.
 Conditions to Avoid: No data available.
 Incompatibility (Materials to Avoid): Oxidizing agents.
 Hazardous Decomposition Products: No data available.

Section 11: Toxicological Information

There is no toxicological information available for the product.

GHS Required Criteria	Toxicity Criteria	Toxicity Information	Comments	Chemical Constituent
Acute Toxicity	LD50 (Oral/Rat):	Data not available		
	LD50 (Oral/Rat):	Data not available		
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Skin Corrosion/Irritation		Data not available		
Serious Eye Damage / Eye Irritation		Data not available		
Respiratory or Skin Sensitization		Data not available		
Germ Cell Mutagenicity		Data not available		
Carcinogenicity	NTP	Not listed		
	IARC	Not listed		
	OSHA	Not listed		
Reproductive Toxicity		Data not available		
STOT -- Single Exposure		Data not available		
STOT -- Repeated Exposure		Data not available		
Aspiration Hazard		Data not available		

STOT = Specific Target Organ Toxicity

Section 12: Ecological Information

	Chemical Constituent
Toxicity:	Data not available
Persistence and degradability:	No information is available.
Bioaccumulative potential	No information is available.
Mobility in soil:	No information is available.
PBT and vPvB assessment:	PBT/vPvB assessment not available as chemical assessment not required/not conducted
Other adverse effects:	No information is available.

Section 13: Disposal Considerations

Waste from residues/unused products: Follow the waste disposal requirements of your country, state, or local authorities.

Contaminated packaging: Contaminated packaging material should be disposed of as stated above for residues and unused product.

Rinsate: Do not dispose of rinse water containing product in a sanitary sewer system or stormwater drainage system.

Section 14: Transport Information

DOT TRANSPORT: Not Regulated

ADR = International Carriage of Dangerous Goods by Road Not Regulated

SEA TRANSPORT: IMDG Not Regulated

AIR TRANSPORT: IATA/ICAO Not Regulated



Section 15: Regulatory Information

TOXIC SUBSTANCE CONTROL ACT (TSCA) STATUS:

This product is in compliance with rules, regulations, and orders of TSCA. All components are either listed on a federal chemical inventory or are considered exempt.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III SECTION 313 SUPPLIER NOTIFICATION:

This regulation requires submission of annual reports of toxic chemical(s) that appear in section 313 of the Emergency Planning and Community Right To Know Act of 1986 and 40 CFR 372. This information must be included in all SDS's that are copied and distributed for the material.

The Section 313 toxic chemicals contained in this product are: None

CALIFORNIA PROPOSITION 65:

This regulation requires a warning for California Proposition 65 chemical(s) under the statute.

The California proposition 65 chemical(s) contained in this product are: None

STATE RIGHT-TO-KNOW TOXIC SUBSTANCE OR HAZARDOUS SUBSTANCE LIST:

Massachusetts's hazardous substance(s): Not listed

Pennsylvania hazardous substance code(s): Not listed

New Jersey: Not listed

CANADA:

WHMIS-2015: This SDS is in compliance with WHMIS 2015 (HPR / new HPA).

EUROPEAN UNION:

This product has been reviewed for compliance with the following European Community Directives: REACH 1907/2006; Regulation (EC) No 1272/2008 on classification, labeling, and packaging (CLP) of substances and mixtures.

Section 16: Other Information

Initial issue date: July 05, 2013
Final revision date: July 12, 2016
Revision Number: 4
Revision explanation: Initial version
Information Sources: RTECS, ECHA, REACH, OSHA 29CFR 1910.1200

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