

<b>SECTION 1: IDENTIFICATION</b>	
(a) PRODUCT IDENTIFIER:	(b) SYNONYM:
Gulf Menhaden Condensed Fish Solubles; Atlantic Menhaden Condensed Fish Solubles; OmegaGrow®; Neptune® Fish Concentrate	N/A

**(c) Recommended Use:** Animal Feed Ingredient, Organic Fertilizer.

**(d) Producer:** Omega Protein, Inc. • 2105 City West Blvd Suite 500; Houston, TX 77042-2838 • (800)345-8805

**(e) 24 HR EMERGENCY ASSISTANCE PHONE NUMBER:** CHEMTREC 800-424-9300

<b>SECTION 2: HAZARDS IDENTIFICATION</b>					
The categories of Health Hazards as defined in OSHA 29 CFR 1910.1200 Hazard Communication Standard have been evaluated and are listed below. Refer to Sections 3, 8, and 11 for additional information.					
Hazard Classification	(a) Hazard Category	(b) Hazard Symbols	(b) Signal Word	(b) Hazard Statement	(b) Precautionary Statement
<b>Human Health Hazards</b>					
<b>Acute Toxicity (Oral)</b>	No Data Available	-	-	H302: Harmful if swallowed.	-
<b>Acute Toxicity (Dermal)</b>	No Data Available	-	-	-	-
<b>Acute Toxicity (Inhalation)</b>	3	-	-	H335: May cause respiratory irritation.	P304+P340: If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>Skin Corrosion/Irritation</b>	3	-	-	H316: Causes mild skin irritation.	P302+P352: If on skin: Wash with plenty of soap and water. P333+P313: If skin irritation or rash occurs: get medical advice/attention.
<b>Eye Damage/Irritation</b>	2A	-	-	H320: Contact can cause mild irritation of eyes.	P305+P351+P338: IF <u>IN EYES</u> : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Respiratory Sensitization</b>	1B	-	-	H334: May cause allergy or asthma symptoms or breathing difficulty if inhaled.	P342+P311: If experiencing respiratory symptoms: call a poison center or doctor/physician
<b>Skin Sensitization</b>	No Data Available	-	-	Prolonged skin contact could result in	P303+P361+P353: If on skin : Remove/take off immediately all

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<b>Human Health Hazards</b>					
				dermatitis in sensitive individuals.	contaminated clothing. Rinse skin with water/shower.
<b>Germ Cell Mutagenicity</b>	No Data Available	-	-	-	-
<b>Carcinogenicity</b>	No Data Available	-	-	-	-
<b>Reproductive Toxicity</b>	No Data Available	-	-	-	-
<b>Specific Target Organ Toxicity (STOT) Single-Exposure</b>	No Data Available	-	-	-	-
<b>Specific Target Organ Toxicity (STOT) Repeated or Prolonged Exposure</b>	No Data Available	-	-	-	-
<b>Aspiration Hazard</b>	No Data Available	-	-	-	-

Hazard Classification	Hazard Category	Hazard Symbols	Signal Word	Hazard Statement	Precautionary Statement
<b>Physical Hazards</b>					
<b>Explosives</b>	No Data Available	-	-	-	-
<b>Flammable Gases</b>	Not Applicable	-	-	-	-
<b>Flammable Aerosols</b>	No Data Available	-	-	-	-
<b>Oxidizing Gases</b>	Not Applicable	-	-	-	-
<b>Gases Under Pressure</b>	Not Applicable	-	-	-	-
<b>Flammable Liquids</b>	No Data Available	-	-	-	-
<b>Flammable Solids</b>	Not Applicable	-	-	-	-
<b>Self-reactive Substances and Mixtures</b>	No Data Available	-	-	-	-
<b>Substances and mixtures which react with water to emit flammable gases</b>	No Data Available	-	-	-	-
<b>Oxidizing Liquids</b>	No Data Available	-	-	-	-
<b>Oxidizing Solids</b>	Not Applicable	-	-	-	-
<b>Organic Peroxides</b>	Not Applicable	-	-	-	-
<b>Corrosive to Metals</b>	No Data Available	-	-	-	-

Hazard Classification	(a) Hazard Category	(b) Hazard Symbols	(b) Signal Word	(b) Hazard Statement	(b) Precautionary Statement
<b>Environmental Hazards</b>					
<b>Acute Toxicity to the Aquatic Environment</b>	No Data Available	-	-	-	-
<b>Chronic Toxicity to the Aquatic Environment</b>	No Data Available	-	-	-	-

(c) Hazards not otherwise classified: mild allergen.

(d) Special hazard: Corrosive

(e) Signal word: Danger

(f) Pictograms:



**Medical conditions which are generally recognized as being aggravated by exposure:** Populations with chronic respiratory, skin, or eye disease are at increased risk from exposure.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

(a) Chemical name (b) (Common name and synonyms)	(c) CAS No.	(c) EC No.	(b) % Weight
Menhaden Fish Emulsion	N/A	N/A	95-97%
Sulfuric Acid	7664-93-9	N/A	3-5%

### SECTION 4: FIRST AID MEASURES

(a) Description of necessary measures:

Emergency Medical advice is available from regional poison control centers 1-800-222-1222.

<b>INHALATION:</b>	Move to fresh air immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
<b>INGESTION:</b>	Do not induce vomiting. If vomiting occurs, place on left side and keep head low. Seek medical help immediately.

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<b>SKIN CONTACT:</b>	Wash with soap or mild detergent and large amounts of water until no evidence of product remains (at least 15-20 minutes). Get medical attention if irritation develops or persists. Place contaminated clothing in closed container until laundered or discarded. Contaminated clothing should be removed or laundered before reuse.
<b>EYE CONTACT:</b>	Flush eyes immediately with water for 15 minutes while holding eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**(b) Most important symptoms/effects:**

- **Acute:** Skin, and mucous membrane irritation.
- **Chronic:** Prolonged skin contact could result in dermatitis in sensitive individuals.

**(c) Indication of immediate medical attention and special treatment:** Significant over-exposure

**Notes to physician:** Medical providers are urged to contact a Regional Poison Center. Treat symptomatically and supportively.

**General advice:** In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## SECTION 5: FIRE FIGHTING MEASURES

**(a) Suitable extinguishing media:** Class "B" fire extinguishers: Carbon dioxide or Water, Dry chemical or appropriate foam.

**Unsuitable extinguishing media:** N/A

**(b) Specific hazards arising from the chemical:** Not known.

**(c) Special protective equipment and precautions for fire-fighters:** Isolate the area from personnel. Keep personnel upwind from fire. Fire fighters should use appropriate SCBA while in close proximity to fire and vapors coming from product. Move personnel upwind of any smoke or vapors.

In the event of fire and/or explosion, do not breathe fumes.

**(d) Flammability/Explosivity:**

Flammable conditions: If pH exceeds 5.0 there is the possibility of formation of explosive mixture of gases. Tanks should be seasoned and well ventilated.

Flash Point (Method) : NA

Smoke Point: NA

Fire Point NA

Flammable Limits (LEL / UEL): NA

NFPA RATING: Health = 0 (Minimal)

Fire = 1 (Slight)

Reactivity = 0 (Minimal)  
 Special Hazard = COR  
 (0-Minimal, 1-Slight, 2-Moderate, 3-Serious, 4-Severe)

**(e) Hazardous Decomposition Products:** unknown

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**(a) Personal precautions, Protective equipment, and Emergency procedures:** Stop the source of the leak or release. Clean up the release as soon as possible, observing precautions in Personal Protection Equipment section. Contain liquid to prevent further contamination of soil and surface water. Clean up small spills using appropriate techniques. Spills from fats and oils produce slippery surfaces. Employ normal sanitation procedures to reduce risk. Absorb material on clay, sawdust, or other material. Follow prescribed procedures for reporting and responding to larger releases.

**(b) Methods and materials for containment and cleaning up:** Clean up spilled material immediately, observing precautions in Section 8, Personal Protection. Place contaminated material in suitable labeled containers for recovery or disposal. Treat or dispose of waste material in accordance with all local, regional, and national requirements.

## SECTION 7: HANDLING AND STORAGE

**(a) Precautions for safe handling:** Tanks must be well ventilated. Non-seasoned metal should be avoided. The pH should be monitored and adjusted as required. Tank contents should be circulated periodically. Tanks must be vented and purged with air before entry. Observe standard tank entry precautions. Additional handling recommendations are available on OPI Technical Bulletin *GUIDELINES FOR THE STORAGE AND HANDLING OF CONDENSED MENHADEN FISH SOLUBLES*.

**(b) Conditions for safe storage, including any incompatibilities:** Store containers in a dry, well-ventilated area.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:			
Components	(a) OSHA PEL <sup>1</sup>	(a) ACGIH TLV <sup>2</sup>	(a) IDLH <sup>3</sup>
Fish Solubles	Not Established	Not Established	Not Established

**Notes:**

1. OSHA PEL are 8-hour TWA (Time-weighted average) concentrations unless otherwise noted. A ("C") designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. A Short Term Exposure Limit (STEL) is defined as a 15-minute exposure, which should not be exceeded at any time during a workday.
2. Threshold Limit Values – TWA established by the ACGIH represents the TWA concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed, day after day, for a working lifetime without adverse effect; Short-Term Exposure Limit (TLV-STEL)

represents a 15-minute TWA exposure that should not be exceeded at any time during a work day. ACGIH TLV's are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes (ACGIH, 2014). The "Skin" notation refers to the potential significant contribution to the overall exposure by the cutaneous (skin) route.

3. The "immediately dangerous to life or health air concentration values (IDLHs)" are used by NIOSH as part of a respiratory selection criteria.
4. No exposure limits have been developed by the producer.

**(b) Appropriate engineering controls:** Use adequate ventilation. Supply sufficient replacement air to make up for air removed by the exhaust system.

**Eye/face protection:** Wear approved safety glasses/goggles with side shields and/or an appropriate full-face shield if aerosols or mists are generated. All eye protection should be selected and worn in accordance with the OSHA eye and face protection guidelines outlined in 29 CFR 1910.132 and 1910.133.

**Skin Protection:** Wear appropriate clothing to prevent extended or chronic skin contact. Thoroughly decontaminate any articles of clothing that come into contact with product. All PPE should be selected and worn in accordance with 29 CFR 1910.132 and 1910.138.

**Respiratory protection:** Respiratory protection is not required for normal use. Respiratory protection should be worn if aerosols or mists are generated. All respirators should be selected and worn in accordance with 29 CFR 1910.132 and 1910.134.

**General hygiene considerations:** Always observe good personal hygiene measures, such as washing after handling the material, and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Other Protective Clothing or Equipment:** Gas monitoring equipment.

**General:** Wear appropriate chemical protective equipment. Launder contaminated clothing before reuse.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties	
	Solution:
(a) Appearance:	Brown viscous liquid
(b) Odor:	Fishy
(c) Odor Threshold:	N/A
(d) pH (1:1 w/water):	3.0-4.5
(e) Melting point:	N/A
(f) Boiling point/range:	220°F
(g) Flash Point:	N/A

Physical and Chemical Properties	
	Solution:
(h) Evaporation rate (butyl acetate =1):	0.8
(i) Flammability:	N/A
(j) LFL/UFL or LEL/UEL:	N/A
(k) Vapor pressure:	N/A
(l) Vapor density:	N/A
(m) Relative density:	N/A
(n) Solubility:	Completely water soluble
(o) Partition coefficient:	N/A
(p) Auto-ignition temperature:	N/A
(q) Decomposition temperature:	N/A
(r) Viscosity:	N/A
(s) Specific Gravity:	1.17

\*Properties of this material may vary with actual composition.

## SECTION 10: STABILITY AND REACTIVITY

- (a) **Reactivity:** No data available.
- (b) **Chemical stability:** Material is stable under normal conditions.
- (c) **Possibility of hazardous reactions:** Minimal.
- (d) **Conditions to avoid (e.g., static discharge, shock, or vibration):** pH above 5.
- (e) **Incompatible materials:** Alkali, mild steel
- (f) **Hazardous decomposition products:** Ammonia, hydrogen gas, methane, hydrogen sulfide
- (g) **Hazardous Polymerization:** Not known to occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

- (a) **Information on likely routes of exposure:**
  - **Inhalation:** Inhalation unlikely unless aerosols are generated.
  - **Accidental Ingestion:** May cause gastrointestinal irritation
  - **Skin contact:** May cause skin irritation.
  - **Eye contact:** May cause slight irritation.
- (b) **Symptoms related to physical, chemical and toxicological characteristics:** Skin contact may cause dermal irritation.
- (c) **Delayed and immediate effects and also chronic effects from short- and long-term exposure:**  
 Chronic skin exposures can lead to dermatitis in sensitive individuals.
- (d) **Numerical measures of toxicity:**

### Acute Toxicity (Oral)

No Data Available

### Acute Toxicity (Dermal)

No Data Available

Acute Toxicity (Inhalation)
No Data Available

Skin Damage/Irritation
No Data Available

Eye Damage/Irritation
No Data Available

Respiratory Sensitization
No Data Available

Skin Sensitization
No Data Available

Germ Cell Mutagenicity
No Data Available

Carcinogenicity
No Data Available

Reproductive Toxicity
No Data Available

Specific Target Organ Toxicity (STOT) – Single exposure
No Data Available

Specific Target Organ Toxicity (Repeated Exposure) Toxicity
No Data Available

Aspiration Hazard
No Data Available

## SECTION 12: ECOLOGICAL INFORMATION

**(a) Ecotoxicity:** Ecotoxicity data have not been determined specifically for this mixture.

**(b) Persistence and degradability:** No Data Available

**(c) Bioaccumulative potential:** No Data Available

**(d) Mobility in soil:** No Data Available

**(e) Other adverse effects:** None identified.



## SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations. Dispose waste in accordance with the federal, state, and local laws and regulations.

Containers should be completely used and emptied prior to discarding.

## SECTION 14: TRANSPORT INFORMATION

Shipping Name: Not Regulated

Additional Information: This may not apply to all shipping situations. Consult 49 CFR 172 for additional information.

## SECTION 15: REGULATORY INFORMATION

SARA Title III: Sections 311/312: N/A

## SECTION 16: OTHER INFORMATION

This Safety Data Sheet is authored pursuant to the OSHA Hazard Communication/HazCom 2012 Final Rule.

### COMMON TERMS AND ACRONYMS:

<b>ACGIH:</b>	American Conference of Governmental Industrial Hygienists
<b>C:</b>	Ceiling Limit
<b>CAS#:</b>	Chemical Abstracts System Number
<b>CERCLA:</b>	Comprehensive Environmental Response, Compensation, and Liability Act
<b>CNS:</b>	Central Nervous System
<b>DOT:</b>	Department of Transportation
<b>DSL:</b>	Domestic Substance List
<b>EC<sub>50</sub>:</b>	Effective concentration that inhibits the endpoint to 50% of control population
<b>EINECS:</b>	European List of Notified Chemical Substances
<b>EPA:</b>	U.S. Environmental Protection Agency
<b>ESIS:</b>	European Chemical Substances Information System
<b>HMIS:</b>	Hazardous Materials Identification System
<b>IARC:</b>	International Agency for Research on Cancer
<b>IDLH:</b>	Immediately Dangerous to Life and Health
<b>IATA:</b>	International Air Transport Association
<b>IMDG:</b>	International Maritime Dangerous Goods
<b>LC<sub>50</sub>:</b>	Concentration of air resulting in death to 50% of experimental animals
<b>LD<sub>50</sub>:</b>	Administered dose resulting in death to 50% of experimental animals
<b>LEL:</b>	Lower Explosive Limit
<b>MSHA:</b>	Mine Safety and Health Administration
<b>NFPA:</b>	National Fire Protection Association
<b>NIOSH:</b>	National Institute for Occupational Safety and Health
<b>N/A:</b>	Not Available

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<b>N/C:</b>	Not Classified
<b>N/D:</b>	No data sufficient for classification
<b>NE:</b>	Not Established
<b>NOAEC:</b>	No Observed Adverse Effect Concentration
<b>NTP:</b>	National Toxicology Program
<b>OECD:</b>	Organisation for Economic Co-operation and Development
<b>OSHA:</b>	Occupational Safety and Health Administration
<b>PEL:</b>	Permissible Exposure Limit
<b>PPE :</b>	Personal Protective Equipment
<b>RCRA:</b>	Resource Conservation and Recovery Act
<b>SARA:</b>	Superfund Amendments and Reauthorization Act
<b>SCBA:</b>	Self-Contained Breathing Apparatus
<b>STEL:</b>	Short Term Exposure Limit
<b>STP:</b>	Standard Temperature and Pressure
<b>TLV:</b>	Threshold Limit Value
<b>TSCA:</b>	Toxic Substances Control Act
<b>TWA:</b>	Time Weighted Average
<b>UEL:</b>	Upper Explosive Limit
<b>WHMIS:</b>	Workplace Hazardous Materials Information System

**Disclaimer:**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

Date of SDS Preparation: 03/01/2017  
SDS Prepared by: Omega Protein, Inc.