Safety Data Sheet (SDS)

ID: SDS 302-US

Section 1 – Identification

Product identifier	Sludge Oil, Palm
Other means of identification	
Synonyms	Palm Sludge Oil, Sludge Palm Oil, Palm Oil Mill Effluent Oil, Palm Oil Mill Effluent Sludge Oil, POME Oil, POME Sludge Oil, Sludge Oil (Palm – POME), Palm Acid Oil, Fatty acids, palm-oil refining sludge
Recommended use	Industrial Feedstock / blend stock, feedstock for biodiesel or renewable hydrocarbon diesel
Restrictions on use	Not intended for direct human consumption
Supplier information	REG International Trading & Commodities BV 416 S. Bell Ave Ames, IA 50010 (888) 734-8686
Emergency phone number	Call ChemTel LLC for emergency service 24 hours a day (800) 255-3924 (North America) +1 (813) 248-0585 (International)

Section 2 – Hazard(s) Identification

Classification (in accordance with 29 CFR 1910.1200)

Hazard Class	Hazard Category	Route of Exposure
Skin Irritation	Category 2 (irritation)	Absorption
Eye Irritation	Category 2B (mildly irritating)	Absorption

Signal word: Warning

Pictograms:

Hazard Statements: Causes skin and eye irritation

Ingredient(s) with unknown acute toxicity (if ≥ 1%): This product is not classified based on testing of the mixture as a whole.
Up to 100% of this mixture contains ingredients of unknown acute toxicity.

Precautionary statements

Prevention: Wear appropriate protective gloves, protective garments, and eye protection. Avoid breathing mists and sprays, and avoid contact if allergic to fats or oils.

Response: If on skin, wash thoroughly with soap and water.
Take off contaminated clothing and wash it before reuse.
If skin irritation or rash occurs, get medical advice.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists: Get medical attention.

Storage	Store in cool tightly closed container
Disposal	Dispose of contents/container in accordance with local, state, and federal regulations.
Hazards not otherwise specified	No information available

Section 3 – Composition / Information on Ingredients

Note: This SDS represents a product with batch-to-batch variability and/or a group of substantially similar mixtures

Chemical Name	Common Name & Synonyms	CAS number	% of product
Fatty Acids, Palm-oil refining sludge		98106-67-3	0-100%
Water		7732-18-5	0-10%

Section 4 – First-Aid Measures

First-aid measures for exposure

Inhalation	Move to fresh air
Skin	Wash affected skin with soap and water. Take off contaminated clothing and wash it before reuse.
Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Ingestion	Rinse mouth out with water. If feeling unwell, seek medical attention.

Most important symptoms / effects

Acute	May cause eye and skin irritation or allergic rash on skin.
Delayed / Chronic	No information available
Indication of immediate medical attention	Treat symptomatically and supportively.
Special treatment needed, if necessary:	No special treatment identified.

Section 5 – Fire-Fighting Measures

Suitable extinguishing media	Water mist, firefighting foam, dry chemical, carbon dioxide, or clean extinguishing agents (such as Halon or Halotron)
Unsuitable extinguishing media	Do not use a solid water stream, as it may scatter and spread the fire
Specific hazards arising from the chemical	May burn if heated, but does not readily ignite. Materials saturated with this product, such as oily rags, used oil dri, soaked insulation pads, etc., may spontaneously combust due to product decomposition in the presence of oxygen. Place all such

materials into appropriate oily waste containers (such as metal cans with metal lids or oily waste dumpsters with lids), and dispose of according to local, state, and federal regulations.

Hazardous combustion products include	Carbon monoxide, carbon dioxide, nitrogen oxides, and hydrocarbons
Protective equipment and precautions for firefighters	Incipient stage fires may be controlled with a portable fire extinguisher. For fires beyond the incipient stage, evacuate all unnecessary personnel. Emergency responders in the immediate area should wear standard firefighting protective equipment, including self-contained breathing apparatus (SCBA) and full bunker gear. In case of external fires in proximity to storage containers, use water spray to keep containers cool, if it can be done safely. Prevent runoff from entering streams, sewers, storm drains, or drinking water supply.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures	Keep all sources of ignition away from spill. Wear protective garments, impervious oil resistant boots, protective chemical-resistant gloves, and safety glasses. If product has been heated, wear appropriate thermal and chemical protective equipment. If splash is a risk, wear splash resistant goggles and face shield. Shut off source of spill, if safe to do so. Contain spill to the smallest area possible. Isolate immediate hazard area and remove all nonessential personnel. Prevent spilled product from entering streams, sewers, storm drains, unauthorized treatment drainage systems, and natural waterways. Place dikes far ahead of the spill for later recovery and disposal. Immediate cleanup of any spill is recommended. **If material spills into or upon any navigable waters and causes a film or sheen on the surface of the water, immediately notify the National Response Center at 1-800-424-8802.**
Methods for containment and clean-up	
Small spill / incidental release	Small spills can be cleaned up with a properly rated vacuum system, absorbent inert media (oil dri, sand, or earth), or absorbent pads. Use soapy water or degreaser to remove oily residue from the affected area, then rinse area with water. Place saturated materials in an appropriate oily waste container (metal can with a metal lid or an enclosed oily waste dumpster), and dispose of according to local, state, and federal regulations.
Large spill / release	A spill remediation contractor with oil booms and skimmers may be needed for larger spills or spills that come into contact with a waterway or sensitive wetland. Recover as much product as possible by pumping it into totes or similar intermediate containers. Remove any remaining product with a properly rated vacuum system, absorbent inert media (oil dri, sand, or earth), or absorbent pads. Use soapy water or degreaser to remove oily residue from the affected area, then rinse area with water. Place saturated materials in an appropriate oily waste container (metal can with a metal lid or an enclosed oily waste dumpster), and dispose of according to local, state, and federal regulations.
Other information	Materials saturated with this product, such as oily rags, used oil dri, soaked insulation pads, etc., may spontaneously combust due to product decomposition in the presence of oxygen. Place all such materials into appropriate oily waste containers (such as metal cans with metal lids or oily waste dumpsters with lids), and dispose of according to local, state, and federal regulations.

Section 7 – Handling and Storage

Precautions for safe handling	Store the product in a cool dry place, in a tightly closed container. When transferring product, use pipes, hoses, and tanks that are electrically bonded and grounded to prevent the accumulation of static electricity. Storage tanks should have an appropriate ventilation and pressure relief system.
Conditions for safe storage, including incompatibilities	Keep away from strong oxidizing agents, strong reducing agents, strong acids, and strong bases.

Section 8 – Exposure Controls / Personal Protection

Precautions for safe handling

Component exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Component	CAS #	OSHA PEL	ACGIH TLV	Respirable fraction
Fats and Glyceride oils, vegetable	68956-68-3	15 mg/m^3 TWA for Glycerin mist	10 mg/m^3	5 mg/m^3 (TWA)

Appropriate engineering controls

Keep product enclosed in primary containment (hoses, pipes, tanks, etc.) to avoid contact with skin. Handle in accordance with good industrial hygiene and safety practices.

Individual Protection Measures

Personal protective equipment

Eyes / face

Wear safety glasses. If splash potential exists, use splash resistant goggles and a face shield.

Skin

Wear disposable nitrile or other similar chemical-resistant gloves for incidental contact. For more substantial contact, wear thicker nitrile or other similar chemical-resistant gloves. Wear protective garments, such as a chemical apron, chemical resistant coveralls, or chemical resistant coat and pants, along with impervious oil-resistant boots. Remove soaked protective equipment, decontaminate with soapy water, and rinse thoroughly before reuse. **Note**: product will cause natural rubbers to degrade at a very rapid rate. Such protective equipment will need to be carefully inspected after decontamination to see if it is still in serviceable condition. Any defective or worn out equipment should be immediately discarded.

Respiratory

OSHA PEL for glycerin mist is 15 mg/m^3 TWA. Appropriate organic vapor or supplied air respiratory protection may be worn if irritation or discomfort is experienced. Respiratory protection must be provided and used in accordance with all local, state, and federal regulations.

Section 9 – Physical and Chemical Properties

Appearance - Physical State:	Solid or semisolid at 25C	**Appearance - Color:**	Light brown to orange-red-dark brown
Odor:	Mild sweet to oily	**Odor Threshold:**	*No information available*
pH:	*No information available*	**Melting/Freezing Point:**	40-50° C
Boiling Point/Range:	*No information available*	**Flash Point:**	>200° F
Evaporation Rate:	*No information available*	**Flammability (solid/gas):**	*No information available*
LFL:	*No information available*	**UFL:**	*No information available*
Vapor Pressure:	*No information available*	**Vapor Density:**	*No information available*
Relative Density @ 15° C:	.85 - .95 g/mL	**Volatile Organic Compounds:**	*No information available*
Solubility (H_20):	Negligible	**Solubility *(other)*:**	*No information available*
Auto Ignition Temp.:	*No information available*	**Decomposition Temp.:**	*No information available*
Viscosity @ 40° C:	*No information available*	**Partition coefficient** (n-octanol/water) **:**	*No information available*

Section 10 – Stability and Reactivity

Reactivity	When handled and stored appropriately, no dangerous reactions are known
Chemical stability	Stable in closed containers at room temperature under normal storage and handling conditions
Possibility of hazardous reactions	When handled and stored appropriately, no dangerous reactions are known See Sections 5 and 6 regarding spontaneous combustion of product-saturated absorbent materials.
Conditions to avoid	Ignition sources, accumulation of static electricity, heating product to its flash point, or allowing the product to cool below its melting point (otherwise it may solidify and not be transferable until it is reheated).
Incompatible materials	Keep away from strong oxidizing agents, strong reducing agents, strong acids, and strong bases.
Hazardous decomposition products	Carbon oxides, hydrogen sulfide, nitrogen oxides, and hydrocarbons

Section 11 – Toxicological Information

Likely routes of exposure	Absorption, ingestion, and inhalation
Symptoms	
Inhalation	Coughing or irritation
Ingestion	Nausea, vomiting, or feeling unwell
Skin contact	Redness or irritation
Eye contact	Redness or irritation and tearing
Acute toxicity	
Oral	*No information available*
Dermal	*No information available*
Inhalation	*No information available*
Skin corrosion / irritation	Industrial experience has shown that product on the skin can cause redness and irritation which subsides within 12 – 14 days.
Serious eye damage / eye irritation	Industrial experience has shown that product in the eyes can cause redness and irritation which subsides within 7 days.
Sensitization *(Respiratory or Skin)*	*No information available*
Germ cell mutagenicity	*No information available*
Carcinogenicity	Available data indicated this product is not listed as a carcinogen by IARC monograph, NTP, or OSHA.

Component carcinogenicity	Not Applicable
Reproductive / developmental toxicity	*No information available*
Specific target organ toxicity	
Single exposure	*No information available*
Repeated exposure	*No information available*
Aspiration hazard	*No information available*

Section 12 – Ecological Information

Acute ecotoxicity - short-term exposure	(Component Information)
Fish	Oleic acid: LC50 = 205 mg/L Pimphales promelas (96 hrs) Palmitic acid: LC50 = 150 mg/L Oryzias latipes (96 hrs) Myristic acid: LC50 = 118 mg/L Oryzias latipes (96 hrs)
Invertebrates	Myristic acid: EC50 > 27 mg/L (16 hrs)
Algae	*No information available*
Persistence and degradability	Product is biodegradable
Bioaccumulative potential	All components of this material will potentially bioaccumulate
Mobility in soil	This product is insoluble and floats on water. No information is available about soil.
Other adverse effects	*No information available*

Section 13 – Disposal Considerations

Disposal *(waste / unwanted product)*	This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate local, state, regional, or federal regulations for additional requirements.
Disposal *(containers with residue)*	Dispose of all containers with residue according to local, state, regional, and federal regulations.

Section 14 – Transport Information

DOT

ID Number	Not Regulated as a hazardous material
UN Proper Shipping Name	Not Regulated as a hazardous material
Transport Hazard Class(es)	Not Regulated as a hazardous material
Packing Group	Not Regulated as a hazardous material
Placard	Not Regulated as a hazardous material
Marine Pollutant	No
Transport in Bulk Requirements	Not Regulated as a hazardous material
Special Transportation Provisions	Not Regulated as a hazardous material
Special Note	Not Regulated as a hazardous material

Shipping Label None

Placard None
(Shipment by truck or rail in bulk)

Section 15 – Regulatory Information

Inventory Listings

DSL ☒ Listed ☐ Exempt
TSCA ☒ Listed ☐ Exempt

U.S. Federal Regulations

CERCLA: This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Clean Water Act: This product does not contain any chemicals regulated as toxic pollutants pursuant to the Clean Water Act (40 CFR 401.15) when used as recommended. **SARA 311/312 Hazard Categories:**

Hazard Class
Skin Irritation
Eye Irritation
☐ Hazard Not Otherwise Classified (HNOC) – see Section 2 for more information

SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

U.S. State Regulations

California Proposition 65:

☒ This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations:

Chemical Name	Pennsylvania	Rhode Island
Oleic Acid	X	X

Section 16 – Other Information

Issuing Date: September 2, 2016

Revision Date: January 11, 2021

Version #: 20210111

Revision Note: Updated SDS sections 1, 9, 14, and 15. Replaced acronym VOC. Added synonyms to provide clarity. Replaced language for consistency with DOT. Updated statement for the Clean Water Act. Removed hazard category and added check box for HNOC for SARA 311/312.

WARNING: POTENTIALLY HAZARDOUS MATERIAL. IMPROPER USE OR MISHANDLING CAN RESULT IN SERIOUS INJURY OR DEATH. THIS PRODUCT CONTAINS SUBSTANCES WHICH, IF MODIFIED, MAY BE FLAMABLE AND MAY BURN OR EXPLODE IF HEATED OR EXPOSED TO FLAME OR OTHER IGNITION SOURCE OR WATER, OXIDIZING AGENTS, ACIDS OR OTHER CHEMICALS. AVOID INGESTION, INHALATION AND CONTACT WITH SKIN AND EYES.

Disclaimer:
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS