Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Revision date: 10.10.2023

CLEAN Lamp Oil

SECTION 1: Identification

Product Identifier

Product Name: CLEAN Lamp Oil

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: Fuel

Uses Advised Against: Any use other than recommended above.

Reasons Why Uses Advised Against: Not determined or not applicable.

Manufacturer or Supplier Details

Manufacturer:

United States

Fire Fly Fuels, Inc.
8150 Blaikie Ct
Sarasota, FL 34240
941-404-6820
www.FireflyFuel.com

Emergency Telephone Number:

United States

CHEMTREC
800-424-9300 (24 hours)

SECTION 2: Hazard(s) Identification

GHS Classification:

Flammable liquids, category 4
Aspiration hazard, category 1

Label elements

Hazard Pictograms:

Signal Word: Danger

Hazard statements:

H227 Combustible liquid
H304 May be fatal if swallowed and enters airways

Precautionary Statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
P280 Wear protective gloves/protective clothing/eye protection/face protection
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor
P331 Do NOT induce vomiting
P370+P378 In case of fire: Use agents recommended in Section 5 to extinguish
P405 Store locked up
P403+P235 Store in a well-ventilated place. Keep cool
P501 Dispose of contents and container in accordance with local, regional, national, and international regulations.

Hazards Not Otherwise Classified:

This material is a static accumulator. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. Electrostatic discharge and ignition of flammable air-vapor mixtures may occur if sufficient charge is accumulated.

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: NA	Alkanes, C12-15-branched and linear	75-85
CAS Number: NA	Distillates, C8-C26 branched and linear hydrocarbons	15-25

Additional Information:

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200).

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Show this Safety Data Sheet to the doctor in attendance.

After Inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If symptoms develop or persist, seek medical advice/attention.

After Skin Contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After Eye Contact:

Rinse eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. If symptoms develop or persist, seek medical advice/attention.

After Swallowing:

This product presents an aspiration hazard. If aspiration is suspected, seek emergency medical treatment. If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

May be fatal if swallowed and enters airways. Aspiration may cause pulmonary edema and pneumonitis. Symptoms may include shortness of breath, dry cough and irritation of the nose, eyes, lips, mouth and throat.

Delayed Symptoms and Effects:

Symptoms of pulmonary edema may be delayed.

Repeated skin exposure may result in defatting of skin with dryness, cracking and dermatitis.

Immediate Medical Attention and Special Treatment

Specific Treatment:

If aspiration is suspected; seek immediate medical attention.

Notes for the Doctor:

Treat symptomatically.

The symptoms of pulmonary edema may be delayed. Therefore, medical observation is indicated.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards During Fire-Fighting:

Combustible liquid. Will be easily ignitable by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke); Carbon monoxide; Unidentified organic and inorganic compounds.

Special Protective Equipment for Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:

Evacuate non-essential personnel. Ventilate closed spaces before entering. Consider initial evacuation for 300 meters in all directions. If tank/rail car is involved in the fire, ISOLATE for 800 meters in all directions. Fight fire from a maximum distance. Move containers from fire area if you can do it without risk. Use water spray/fog for cooling fire exposed containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles. If this is impossible, withdraw from area and let fire burn. Stand by, at a safe distance, with extinguisher ready for possible re-ignition. A vapor-suppressing foam may be used to reduce vapors. Avoid unnecessary run-off of extinguishing media which may cause pollution. Do not handle damaged containers unless specialized to do so.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. All equipment used when handling the product must be grounded. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

Methods and Material for Containment and Cleaning Up:

Absorb or cover with dry earth, sand or other non-combustible material and transfer to suitable containers for future disposal. For Large spills (> 1 drum): Transfer my mechanical means, such as vacuum truck to salvage tank. Do not flush away residue with water. Absorb or cover with dry earth, sand or other non-combustible material and transfer recovered material along with any contaminated soil to suitable containers for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to Other Sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating and lighting equipment. Take action to prevent static discharges. Handle containers with caution. Do not cut, drill, grind, weld or perform similar operations on or near containers. Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. The vapor is heavier than air, spreads along the ground and distant ignition is possible. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use. PRODUCT TRANSFER: Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapor mixtures can occur. Be aware of handling operations that may result in the accumulation of static charges. These include but are not limited to pumping (especially turbulent flow), mixing, filling, sampling, switch loading, gauging, vacuum truck operations and mechanical movements.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Bulk storage tanks should be diked (bunded). Locate tanks away from heat and other sources of ignition. Keep away from aerosols, flammables, oxidizing agents, corrosives and other flammable products. Keep away from food and beverages. Store away from heat, open flames and other sources of ignition. Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Bond and ground all equipment used for product handling and transfer. Flammable vapors may accumulate in the head space of storage vessels. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

Occupational Exposure Limit Values:

No occupational exposure limits noted for the ingredient(s).

Biological Limit Values:

No biological exposure limits noted for the ingredient(s).

Information on Monitoring Procedures:

Not determined or not applicable.

Appropriate Engineering Controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Use explosion proof ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal Protection Equipment

Eye and Face Protection:

Safety glasses or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and Body Protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory Protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

General Hygienic Measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance	Colorless Liquid
Odor	Hydrocarbon
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	210 - 260 °C / 410 - 500 °F [Alkanes, C12-15-branched and linear]
Flash point (closed cup)	83.5 °C / 182.3 °F [Alkanes, C12-15-branched and linear]
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	7% (V) [Alkanes, C12-15-branched and linear]
Lower flammability/explosive limit	0.5% (V) [Alkanes, C12-15-branched and linear]
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	0.78 - 0.8 [Estimate]
Solubilities	Insoluble in water.
Partition coefficient (n-octanol/water)	log Pow: >5.5 [Alkanes, C12-15-branched and linear]
Auto/Self-ignition temperature	>200 °C / >392 °F [Alkanes, C12-15-branched and linear]
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	<2 mm2/s (25 °C / 77 °F) [Alkanes, C12-15-branched and linear]
Explosive properties	Not determined or not available.

Oxidizing properties	Not determined or not available.

Other Information

Conductivity	<100 pS/m

SECTION 10: Stability and Reactivity

Reactivity:
Not reactive under recommended handling and storage conditions.

Chemical Stability:
Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:
Can form explosive mixture in air if heated above flash point and/or when sprayed or atomized.
Reacts with strong oxidizing agents.

Conditions to Avoid:
Extreme heat, open flames, hot surfaces, sparks, ignition sources, static electricity and incompatible materials. Vapor accumulation in low or confined areas.

Incompatible Materials:
Strong oxidizing agents

Hazardous Decomposition Products:
Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon oxides, sulfur oxides and unidentified organic compounds will be released when this material undergoes combustion or thermal or oxidative degradation.

SECTION 11: Toxicological Information

Acute Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

Route	Result
Oral ATE	LD50 Rat: >5000 mg/kg
Dermal ATE	LD50 Rat: >2000 mg/kg
Inhalation ATE	LC50 Rat: 3.85 - 5.55 mg/L (4 hr [greater than near-saturated vapor concentration])

Substance Data:

Name	Route	Result
Distillates, C8-C26 branched and linear hydrocarbons	oral	LD50 Rat: >5000 mg/kg
	dermal	LD50 Rata: >2000 mg/kg

Skin Corrosion/Irritation

Assessment: Based on available data, the classification criteria are not met.

Product Data:
No data available.

Substance Data: No data available.

Serious Eye Damage/Irritation

Assessment: Based on available data, the classification criteria are not met.

Product Data:
No data available.

Substance Data: No data available.

Respiratory or Skin Sensitization

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

OSHA Carcinogens: Not applicable

Germ Cell Mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Reproductive Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Single Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Aspiration toxicity

Assessment:

May be fatal if swallowed and enters airways.

Product Data:

No data available.

Substance Data:

Name	Result
Alkanes, C12-15-branched and linear	May be fatal if swallowed and enters airways.
Distillates, C8-C26 branched and linear hydrocarbons	May be fatal if swallowed and enters airways.

Information on Likely Routes of Exposure:

Ingestion, Inhalation, Skin contact, Eye contact.

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

See section 4 of this SDS.

Other Information:

No data available.

SECTION 12: Ecological Information

Acute (Short-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Result
Distillates, C8-C26 branched and linear hydrocarbons	Aquatic Invertebrates EC50 Daphnia magna: >1000 mg/L (48 hr (mobility) [Read-across substance])

Chronic (Long-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data: No data available.

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
Distillates, C8-C26 branched and linear hydrocarbons	The substance is readily biodegradable. 68% degradation, measured by Oxygen consumption, after 28 days.

Bioaccumulative Potential

Product Data: No data available.

Substance Data: No data available.

Mobility in Soil

Product Data: No data available.

Substance Data: No data available.

Results of PBT and vPvB assessment

Product Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

Disposal Methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory agencies. Dispose of in accordance with all applicable local, regional, state and federal regulations.

Contaminated packages:

Drums may contain flammable/explosive product residue. Do not puncture, cut or weld uncleaned drums.

SECTION 14: Transport Information

United States Transportation of Dangerous Goods (49 CFR DOT)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None
Additional Information	This material is not regulated under 49CFR per 173.120(b)(3) and ASTM D4206 testing.

International Maritime Dangerous Goods (IMDG)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Bulk Name	Gas Oil
Ship Type	Annex I or Double hull vessels with carriage of oil certification
Pollution Category	Annex I

SECTION 15: Regulatory Information

United States Regulations

Inventory Listing (TSCA): All ingredients are listed-active or exempt.
Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.
Export Notification under TSCA Section 12(b): None of the ingredients are listed.
SARA Section 302 Extremely Hazardous Substances: None of the ingredients are listed.
SARA Section 313 Toxic Chemicals: None of the ingredients are listed.
CERCLA: None of the ingredients are listed.
RCRA: None of the ingredients are listed.
Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.
Massachusetts Right to Know: None of the ingredients are listed.

New Jersey Right to Know: None of the ingredients are listed.
New York Right to Know: None of the ingredients are listed.
Pennsylvania Right to Know: None of the ingredients are listed.
California Proposition 65: None of the ingredients are listed.
Additional information: Not determined.

SECTION 16: Other Information

Abbreviations and Acronyms: None
Disclaimer:
This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered 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 materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.
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End of Safety Data Sheet