FANCYHEAT CORPORATION SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

PRODUCT NAME ------ FancyLite Fuel Cell

PRODUCT NUMBER(S)-----> 17500-F500, F505, F510, F515, F520, F525, F530, F535, F540, F545, F550, F555

TRADE NAMES/SYNONYMS> n-paraffin hydrocarbons C14-C16, Mixture of Tetradecane, Pentadecane and Hexadecane.

CAS-No: 90622-46-1 CHEMICAL FAMILY: Aliphatic Hydrocarbon

RECOMMENDED USE: Manufacture of substances. USES ADVISED AGAINST: No information available

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: FANCYHEAT CORPORATION

Address: 40 VERONICA AVENUE

SOMERSET, NJ 08873

Telephone: 1-973-589-1450 Fax: 1-732-249-0087

Emergency Telephone Number

Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS) Aspiration Hazard (Category 1)

GHS Label elements, including precautionary statements



Pictogram

Signal Word: Danger

Hazard statement(s): H304 May be fatal if swallowed and enters airways.

Precautionary statement(s):

P301 + P310 IF SWALLOWED: Immediately call a POISON

CENTER or doctor/ physician.

P331 Do not induce vomiting

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

3. INGREDIENTS

Ingredient	CAS No.	% by \ Range		CLASSIFICATION
n-paraffins C14-C16	90622-46-1	 99- 100	 Asp 	iration Hazard (Category 1)
This product is listed in TSCA inventory as Alkanes (C14-C16).		į į	; 	
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4. <u>FIRST-AID PROCEDURES</u>

INHALATION:

**FIRST AID- Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention.

SKIN CONTACT:

**FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts or water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention if irritation persists.

EYE CONTACT:

**FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Get medical attention immediately.

INGESTION:

FIRST AID- Do **not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

Immediately consult a physician or poison control center, treat symptomatically.

5. FIRE FIGHTING MEASURES

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

UNIFORM FIRE CODE: Combustible Liquid Class IIIB

Flash Point: 244°F TCC LEL %:0.5 Auto-ignition temp.: 400°F UEL %:4.7

SUITABLE EXTINGUISHING MEDIA: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

CONDITIONS OF FLAMMABILITY: Not Flammable or Combustible.

ADVICE FOR FIREFIGHTERS: Shut off source. Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind Do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Cool containers with flooding amounts of water from as far a distance as possible. Wear NIOSH approved self-contained breathing apparatus for confined spaces and full protective gear.

<u>UNUSUAL FIRE AND EXPLOSION HAZARDS</u>: Keep containers tightly closed. NFPA Class IIIB Combustible liquid. Closed containers may explode when exposed to extreme heat.

<u>COMBUSTION PRODUCTS</u>: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

6. ACCIDENTAL RELEASE MEASURES

<u>PERSONAL PROTECTIVE MAEASURES</u>: Avoid contact with eyes. Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

METHODS FOR CONTAINMENT AND CLEAN UP: Shut off valves, contain spill, keep out of water sources and sewers. Dike area to contain spill, recover liquid for reuse or reclamation. Next add non combustible absorbent to pick up residual material in the spill area. Collect saturated absorbent and place in approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations. Keep all nonessential people away.

7. HANDLING AND STORAGE

<u>PERSONAL PRECAUTIONARY MEASURES</u>: Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not take internally.

<u>HANDLING INFORMATION</u>: Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

CONDITIONS FOR SAFE STORAGE: Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Do not store above 120°F. Store large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not store with incompatible materials. Keep containers closed when not in use. Do not consume food, drink or use tobacco products in areas where they may become contaminated with this material.

<u>CONTAINER WARNINGS</u>: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner.

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

EXPOSURE GUIDELINES:

Ingredient	CAS No.	% by WT. Range	Exposure Limits	
n-paraffins C14-C16	90622-46-1	 99-100 	 5mg/M3 8hr. TWA	
This product is listed in TSCA		1	1	
inventory as Alkanes (C14-C16).		I	1	
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Key: (PEL) = Permissible Exposure Limit OSHA

(TLV) = Threshold Limit Value OSHA & ACGIH

(STEL) = Short Term Exposure Limit ACGIH

(WEEL) = USA. Workplace Environmental Exposure Levels

(TWA) = Time Weighted Average

CAS = Chemical Abstracts Registry Number

IDLH = Immediate Danger to Life and Health

N.E. =None Established

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

<u>RESPIRATORY PROTECTION</u>: For vapor concentrations 1 to 10 times OSHA TLV or PEL an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times OSHA TLV or PEL, in confined areas, and/or where vapor concentrations are unknown use a NIOSH approved positive pressure full face-piece supplied air respirator.

<u>BODY CLOTHING</u>: No protective equipment is needed under normal use conditions. However employees must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

<u>SKIN PROTECTION</u>: No protective equipment is needed under normal use conditions. However employees must wear appropriate protective gloves to prevent contact with this substance. Rubber or neoprene chemical resistant gloves.

<u>EYE/FACE PROTECTION</u>: No protective equipment is needed under normal use conditions. However employees should use safety eyewear with splash guards or face shield.

Emergency shower and eyewash should be easily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE, COLOR AND ODOR: Water white, oily liquid with a mild hydrocarbon odor.

ODOR THRESHOLD:

pH:

No data available

MOLECULAR WEIGHT:

No data available

MELTING POINT: 4°C (39°F)

BOILING POINT: 248-284°C (478-544°F)

SPECIFIC GRAVITY: 0.768@16°C (61°F)

DENSITY (25°C): 0.768g/ml @16°C (61°F)

VAPOR PRESSURE: <0.1 mm Hg @ 25°C (77.0°F)

VAPOR DENSITY: 7.1

WATER SOLUBILITY: Negligible

PARTITION COEFFICIENT N- No data available

OCTANOL/WATER

FLASH POINT: 118°C(244°F) – Pensky Martins Cup

EVAPORATION RATE (BUTYL ACETATE=1): <0.001

UPPER FLAMMABILITY LIMIT: 4.7%(V)

LOWER FLAMMABILITY LIMIT: 0.5%(V)

AUTO INGNITION TEMPERATURE: 204°C (400°F)

DECOMPOSITION TEMPERATURE: No data available

VISCOSITY: 2.3-2.5cSt@40°C (104°F)

EXPLOSIVE PROPERTIES: No data available OXIDIZING PROPERTIES: No data available

OTHER INFORMATION: No data available

10. STABILITY AND REACTIVITY INFORMATION

<u>CHEMICAL STABILITY</u>: Unstable () Stable (X)

POSSIBILITY OF HAZARDOUS REACTIONS: None under normal processing

<u>CONDITIONS TO AVOID</u>: Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame. At elevated temperatures explosive decomposition may occur.

<u>INCOMPATIBLE MATERIALS</u>: Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide. Zinc

<u>HAZARDOUS DECOMPOSITION PRODUCTS</u>: Fumes, Smoke, Carbon Monoxide and Carbon Dioxide.

HAZARDOUS POLYMERIZATION: May occur () Will not occur (X)

11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Irritating; reddening of the conjunctiva;

Skin> Mildly irritating; redness, irritation and scaling.

Inhalation> Low vapor pressure at ambient temperature indicating that it has limited inhalation hazard. Vapor formed by heating the material may cause respiratory tract irritation.

Ingestion> Lung exposure to this product either by prolonged breathing of a mist or vomiting following ingestion, can lead to serious lung injury and possibly death.

Chronic: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney or liver.

Medical Conditions Aggravated by Exposure> Individuals with pre-existing skin, central nervous system or impaired kidney or liver function should avoid contact with this material.

ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50(Rat)	Skin LD50(Rabb	it) Inhalation Lc50	
n-paraffin hydrocarbons	>2000mg/kg 	>2000mg/kg 	>5.8mg/l 4 hr 	

MUTAGENIC EFFECTS: No data available.

CARCINOGEN STATUS: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, ACGIH, and OSHA.

REPRODUCTIVE TOXICITY: No data available.

Specific target organ toxicity (STOT-SE)- single exposure (Globally Harmonized

System): no data available

Specific target organ toxicity (STOT-RE)- repeated exposure (Globally

Harmonized System): no data available

ASPIRATION HAZARD: No data available

ADDITIONAL DATA: No data available

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY:

Low potential to affect aquatic organisms and secondary waste treatment organisms.

Toxicity to Fish:

LL50 (Pimephales promelas (fathead minnow) 96 hours

In the range of water solubility not toxic under test conditions.

Toxicity to Aquatic invertebrates: EL50 (Ceriodaphnia Dubia (water flea)) 192 hours In the range of water solubility not toxic under test conditions. Toxicity to Algae: No data available

WATERFOWL TOXICITY: No data available

PERSISTANCE AND DEGRADABILITY: Readily biodegradable. OECD Test

Guideline 301F (28 d): 82 %

BIOLOGICAL OXYGEN DEMAND (BOD): No data available

BIOACCUMULATION: No data available

BIOCONCENTRATION FACTOR (BCF): No data available

FOOD CHAIN CONCENTRATION POTENTIAL: None noted

13. **DISPOSAL CONSIDERATIONS**

WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

CONTAMINATED PACKAGING: Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

USDOT Shipping Name>	Not Regulated
USDOT Hazard Classification	> N/A
USDOT Label Codes>	· N/A
USDOT ID Number>	N/A
USDOT Package Code>	N/A
Emergency Response Guide>	N/A
Marine Pollutant>	No

IMDG: Not Regulated

IATA: Not Regulated

15. <u>REGULATORY INFORMATION</u>

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355)- Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65)- Not Listed

SECTION 311/312: Hazard Categorization (40 CFR 370)- Acute Health Hazard

<u>CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)</u>

SECTION 102(A) Hazardous Substances (40 CFR 302.4)- Not Listed Reportable Quantity – None SECTION 101(14) Reportable Quantity: None

Massachusetts Right To Know Components Not Listed Pennsylvania Right To Know Components Not Listed New Jersey Right To Know Components Not Listed

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substance Control Act)

Alkanes C14-C16 are listed on the TSCA Inventory.

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System)

Hazard Rating:

4-Extreme

3-High

2-Moderate

1-Slight

0-Insignificant

NFPA RATINGS (SCALE 0-4): Health=1 Fire=1 Reactivity=0

HMIS RATINGS (SCALE 1-4) Health=1 Fire=1 Reactivity=0 PPE=B

Date of preparation-----> March 4, 2004

Revision Number----> 1.2

Revision Date-----> February 26, 2015

Prepared by-----> T.G. Fenstermaker, Jr.

Acronyms:

ACGIH - American Conference of Governmental Industrial Hygenists

AIHA - American Industrial Hygiene Association
ANSI - American Nation Standards Institute

API - American Petroleum Institute

CERCLA - Comprehensive Emergency Response, Compensation, and Liability Act

DOT - U.S. Department of Transportation

EPA - U.S. Environmental Protection Agency

HMIS - Hazardous Materials Information System

IARC - International Agency For Research On Cancer

MSHA - Mine Safety and Health Administration NFPA - National Fire Protection Association

NIOSH - National Institute of Occupational Safety and Health

NOIC - Notice of Intended Change (Proposed change to ACGIH TLV)

NTP - National Toxicology Program
OPA - Oil Pollution Act of 1990

OSHA - U.S. Occupational Safety & Health Administration

PEL - Permissible Exposure Limit (OSHA)
RCRA - Resource Conservation and Recovery Act
REL - Recommended Exposure Limit (NIOSH)

SARA - Superfund Amendments and Reauthorization Act of 1986 Title III

SCBA - Self-Contained Breathing Apparatus

STEL - Short-Term Exposure Limit (generally 15 minutes)

TLV - Threshold Limit Value

TSCA - Toxic Substances Control Act
TWA - Time Weighted Average (8hr.)

WHMIS - Canadian Workplace Hazardous Materials Information System

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