MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND CONTACT INFORMATION

Product Name: Residual Fuel Oil Standard (Heavy petroleum distillates, vacuum)

AR2891, AR2911, AR2892, AR2893, AR2809, AR2894, AR2895, AR2812, AR2813, AR2896, AR2897, AR2814, AR2818, AR2815, AR2819, AR2816, AR2817, AR2898, AR2899, AR1622, AR2857, AR2858, AR2859, AR2861, AR2862, AR2863, AR2864, AR2890, AR2860, AR 100, AR 150, AR3181, AR3182, AR3183

Alpha Resources, Inc. P.O. Box 199 Stevensville, MI 49127 Phone: 269-465-5559

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS NO. %W CHEMICAL NAMES PEL (mg/m3) TLV (mg/m3) 64741-56-6 100 Residual Fuel Oil 5 TWA 5 TWA

TWA - Time Weighted Average

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

WARNONG! This product is flammable when heated to high temperature. Small amounts of this product, if aspirated into the lungs, may cause mild to severe pulmonary injury. This product may be irritation to the eyes, skin and respiratory system. Ingestion of inhalation of heated vapors or mists may result in central nervous system effects including headache, sleepiness, dizziness, slurred speech and blurred vision. May cause skin cancer. Avoid contact. Prevent entry into drains, ditches a, sewers and waterways.

POTENTIAL HEALTH EFFECTS

EYES: Causes irritation.

SKIN: Causes irritation. Prolonged and repeated contact may cause various skin disorders such as dermatitis, folliculitis, oil acne or skin cancer.

INHALATION: Excessive inhalation of this material causes headache, dizziness, nausea and loss of coordination. Inhalation of heated vapors or mists may cause headache, dizziness, nausea and loss of coordination. Aspiration of liquid in to the lungs can cause mild to severe pulmonary injury. INGESTION: Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion of this product may result in central nervous system effects including headache, sleepiness, dizziness, slurred speech and blurred vision. Swallowing or vomiting of liquid may cause aspiration into the lungs. Aspiration of liquid into the lungs can cause mild to severe pulmonary injury.

4. FIRST AID MEASURES

EYES: Flush with large amounts of water. If irritation persists, get medical attention

INHALATION: Removed from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If respiratory irritation, dizziness, nausea or unconsciousness occurs, get medical attention. WARNING: Contact through mouth-to-mouth resuscitation may pose a secondary risk to the rescuer. Avoid mouth-to-mouth contact by using a mouth shield or guard to perform artificial respiration.

SKIN: Wash skin with plenty of soap and water. Remove and launder contaminated clothing before reuse.

INGESTION: Material is not expected to be absorbed from the gastrointestinal tract. Do not induce vomiting. Call a physician.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flammable

Flash Point: > 266 F Pensky-Martens, closed cup

Flammable Limits: (% by Volume in Air): Lower: 1% estimated Upper: 5% estimated

AUTO-IGNITION TERMERATURE: >500 F

HAZARDOUS COMBUSTION PRODUCTS: Upon combustion, this product emits carbon monoxide, carbon dioxide, sulfur oxides and/or low molecular weight hydrocarbons and toxic (acidic) gases

EXTINGUISHING MEDIA: Dry chemical, foam, carbon dioxide, water spray or fog. Use water to cool fire-exposed containers and to protect personnel. Water may be an ineffective extinguishing medium.

FIREFIGHTING INSTRUCTIONS: Position upwind. Keep unnecessary personnel away. Move containers from fire area if you can do so without risk. Fight fire from maximum distance or use unmanned holders or monitor nozzles. Immediately withdraw in case of fire and tank venting or heat discoloration of a tank. Fire fighters should wear full-face, self-contained breathing apparatus and thermal protective clothing. Avoid inhaling any smoke and combustion products. Remove and clean or destroy any contaminated clothing. Cool containers with flooding quantities of water until well after the fire is out. Control runoff waters to prevent entry into sewers, drains, ditches, underground or confined spaces and waterways.

6. ACCIDENTAL RELEASE MEARURES

SMALL SPILL: Stop discharge if it is safe to do so. Absorb spill with inert material. Shovel material into appropriate container for disposal.

LARGE SPILL: Eliminate ignition sources. Keep upwind and out of low areas. Stop discharge if safe to do so. Contain discharge by booming on water or diking on ground. Remove material with approved non-sparking pumps, skimmers or vacuum equipment. Absorb/adsorb material with DRY earth, sand or other non-combustible materials. Soil remediation may be required. Prevent entry into drains, ditches, sewers and waterways.

7. HANDLING AND STORAGE

HANDLING: Keep locked up or secure. Handle in fully grounded, properly designed and approved equipment systems that are suitable for flammable liquids. Use with adequate ventilation. Do not ingest or inhale. Keep away from heat and ignition sources. No smoking or open flames permitted in storage, use or handling areas. Take special precautions when cold cutting or breaking into lines, or when cleaning and disposing of empty containers. Do not breathe gas, fumes, vapor or spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately. Avoid contact with skin and eyes. Keep away from incompatible materials such as oxidizing agents and strong acids. After handling, always wash hands thoroughly with soap and water.

STORAGE: Storage area should be clearly identified, well-illuminated, clear of obstruction and accessible only to trained and authorized personnel. Store in grounded properly designed and approved vessels and away from incompatible materials. Store and use away from heat, sparks, open flame, or any other ignition source. Store according to applicable regulations. Have appropriate extinguishing capability in storage area. (e.g. sprinkler system, printable fire extinguishers) and flammable gas detectors. Prevent soil contamination. Keep absorbents for leaks and spills readily available. Storage tanks should be above ground and diked to hold entire contents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Engineering methods to reduce hazardous exposure are preferred controls. Methods include mechanical ventilation process or personal enclosure, remote and automated operation, control of process conditions, lead detection and repair systems and other process modifications. Ensure all exhaust ventilation systems are discharges to outdoors, away from air intakes and ignition sources. Supply sufficient replacement air to make up for air removed by exhaust systems. Administrative controls and use of person al protective equipment may also be required.

RESPIRATORY PROTECTION: If engineering controls and ventilation are not sufficient to prevent buildup of aerosols or vapors, appropriate NIOSH approved air-purifying respirators or self-contained breathing apparatus appropriate for exposure potential should be used.

SKIN AND HAND PROTECTION: Wear chemical-resistant gloves.

EYE AND FACE PROTECTION: Safety goggles.

OTHER PROTECTIVE EQUIPMENT: Wear suitable protective clothing as needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, colorless to amber, aromatic, volatile liquid.

BOILING POINT: 600 – 1130 F FREEZE-MELT POINT: 53 – 104 F

VAPOR PRESSURE: <7 VAPOR DENSITY: 1

SOLUBILITY IN WATER: Negligible

SPECIFIC GRAVITY: .91

pH: N/A

ODOR: Hydrocarbon/petroleum odor Auto Ignition Temperature: >500 F

EVAORATION RATE: slow, only partially volatile

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

INCOMPATIBILITY: Heat, spark or open flame. May react with oxidizing agents or strong acids. Heated vapors or mists may form explosive mixtures in air.

HAZARDOUS DECOMPOSITION PRODUCTS: Upon decomposition, this product emits carbon monoxide, carbon dioxide, sulfur oxides and/or low molecular weight hydrocarbons and toxic (acidic) gases.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

None available.

12. ECOLOGICAL INFORMATION

None available.

13. DISPOSAL CONSIDERATION

Dispose of gasoline in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

USA DOT: Not Regulated

15. REGULARTORY INFORMATION

US FEDERAL REGULATIONS

None of this product's components are listed under SARA Section 302, SARA Section 313, or CERCLA.

TOXIC SUBSTANCES CONTRAL ACT (TSCA): This product is listed on the EPA TSCA Inventory.

CANADIAN REGULATIONS

WHIMS: B3, D2B

16. OTHER INFORMATION

SUPPLEMENTAL INFORMATION

The data and information as stated was furnished by the manufacturer/vendor &/or supplier of this product. Alpha Resources, Inc. cannot warrant the accuracy of this information and shall not be responsible or liable for any damage that may result, should any of the information be erroneous.

Date Prepared: January 14, 2013

Prepared by: Ken Mantei