### Material Safety Data Sheet

#### SECTION I

### PRODUCT NAME OR NUMBER (AS IT APPEARS ON LABEL):

RESIDUAL OIL HYDROCARBON STANDARD

AR 100, AR 150, AR1622, AR2890, AR2891, AR2892, AR2893, AR2894, AR2895, AR2896, AR2897, AR2898, AR2899, AR2811, AR2809, AR2812, AR2812, AR2813, AR2814, AR2815, AR2816, AR2817, AR2818, AR2819, AR2860, AR2857, AR2858, AR2859, AR2861, AR2862, AR2863, AR2864

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MANUFACTURER'S DUNNS NO. 08 383 8045

HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASSES, HAZARD ID NO:

Vacuum tower bottoms, vacuum residuum, coker feed

CHEMICAL FAMILY: Aliphatic Hydrocarbon

FORMULA: N/A

SECTION II - INGREDIENTS (LIST ALL INGREDIENTS)

LISTED AS A CARCINOGEN IN NTP, IARC OR OSHA 1910(Z)

CAS REGISTRY NO. %W CHEMICAL NAMES SPECIFY

64741-56-6 100 Residual oil no

SECTION III - PHYSICAL DATA

Boiling point: > 725 Deg. F SPECIFIC GRAVITY = .97-1.03

(WATER = 1)

% Volatile by volume: unavailable

Vapor pressure: < 0.10mm Hg

Percent solid(s) by weight % = N/A

Vapor density (air = 1): > air

Evaporation rate: < 1.00

Solubility in water: negligible pH N/A

Melting point: > 150 F

Material is Liquid or amorphous solid depending on temperature

Appearance and odor: looks like oil

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash point: 450 Deg F

Flammable limits: LEL: N/A UEL: N/A

Extinguishing media: Water spray, dry chemical, foam or carbon dioxide to extinguish fire. Water or foam may cause frothing, with further application leading to boil over.

Use a water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from sources of ignition. Do not flush down public sewer.

Unusual fire and explosion hazards: Combustible at high temperatures. Irritating or toxic substances may be emitted upon thermal decomposition. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

#### SECTION V HEALTH HAZARD DATA

Threshold Limit Value: 5 Mg/M\scripts03\script

Permissible exposure limit: 5 Mg/M□S03□T

Note PEL/TLV is for oil mist. Short term exposure limit (STEL) for oil mist is  $10~\mathrm{Mg/CUM}$ 

Other limit: N/A

Effects of overexposure:

Eyes - can cause moderate irritation, redness, tearing. Skin - Practically non toxic. Estimated rat dermal LD50 => 5 gm/kg. Slightly irritating. Repeated or prolonged contact may result in defatting, dermatitis, oil acne, redness, itching, inflammation, cracking and possible secondary infection. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Breathing - of mist can cause irritation of nasal and respiratory passages.

Swallowing - practically non-toxic. Estimated rat oral LD50=>5gm/kg. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea.

Primary routes of entry: Oral, Skin Contact

Emergency and first aid procedures:

If on skin: thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use. If in eyes: Flush with large amounts of water, lifting upper and lower lids occasionally.

If swallowed: Do not induce vomiting. Keep person warm, quiet, and get medical attention. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

If breathed: If affected, removed individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet, and get medical attention.

### SECTION VI REACTIVITY DATA

Stability: Stable Conditions to avoid: Excessive heat

Incompatibility: (material to avoid) strong oxidizing agents

Hazardous decomposition products: Combustion may produce CO, CO2, and reactive hydrocarbons.

Hazardous polymerizations: will not occur

Conditions to avoid: N/A

## SECTION VII SPILL OR LEAK PROCEDURE

Steps to be taken in case material is released or spilled: Take immediate steps to stop and contain the spill. Absorb liquid on paper, vermiculite, floor absorbent or other absorbent material.

Waste disposal:

in accordance with state, federal, and local regulations.

Reportable quantities in lbs.:

CERCLA N/A SARA N/A OTHER N/A

RCRA hazardous waste number(s): N/A

Volatile organic compounds (VOC) (as packaged minus water).

Theoretical (lbs/gal): N/A Analytical (lbs/gal): N/A

# SECTION VIII SPECIAL PROTECTION

Eye protection: Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (consult your safety equipment supplier)

Skin protection: To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory protection: If workplace exposure limit(s) of product or any component is exceeded, a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering or administrative controls should be implemented to reduce exposure.

Ventilation Local Exhaust (specify rate): Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

## SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing and/or other precautions:

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in this data sheet must be observed.

## 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: February 20, 2009 Prepared by: Scot Burns