Alpha Resources Inc.

Safety Data Sheet (SDS) SDS #: 20

Revision Date: February 7, 2017

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Crude Oil (type varies)

AR2940, AR2941, AR2942, AR2943, AR2944, AR2041, AR2945, AR2946, AR2947, AR2948, AR2042, AR2043, AR2044, AR2045, AR2046, AR2047, AR2048, AR2049, AR2050, AR2051, AR2070, AR2070S, AR2071, AR2071S, AR2072, AR2072S, AR3032, AR3033, AR3034, AR3046, AR3046Q, AR3047, DMR1771, (DMR "specials" referred to as crude oil standards)

This product is intended for laboratory use.

Alpha Resources Inc. 3090 Johnson Rd. Stevensville, MI 49127 (269)465-5559

CHEMTREC Emergency Phone Number: (800) 424-9300 Signal Word: DANGER

SECTION 2— HAZARDS IDENTIFICATION

Physical Hazard: Flammable liquid (Category 2)

Hazard Statements: Highly flammable liquid and vapor (H225).

Precautionary Statements: Keep away from flames and hot surfaces (P210), use explosion-proof electrical, ventilation, and lighting equipment (P241), use only non-sparking tools (P242), take precautionary measures against static discharge (P243), wear protective gloves/clothing/eyewear/face (P280), If on skin or hair take off immediately all clothing contaminated, rinse skin with water (P303+P361+P353), dispose of content/container in accordance with local, regional, national, and international regulations (P501), and store in well ventilated place, keep cool (P403+P235).

SECTION 3— COMPOSITION, INFORMATION ON INGREDIENTS

Component	CAS#	Common %
Crude Oil	8002-05-9	100

Crude Oil contains various concentrations of elements specified on Certificates of Analysis.

Components are listed as in compliance with OSHA 29CFR 1910.1200

SECTION 4— FIRST AID MEASURES

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340). If breathing is difficult qualified personnel may administer Oxygen. Seek medical attention.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313).

If on skin: Wash with plenty of water. (P302+P352). If persists seek medical attention and bring label. Thoroughly clean and dry contaminated clothing or shoes.

If swallowed: DO NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention.

Most Important Symptom: May cause irritation to eyes, skin, and respiratory system. Inhalation symptoms could be described as cough, irritation, difficulty breathing and possibly cancer. Skin exposure may lead to dermatitis.

SECTION 5 — FIRE FIGHTING MEASURES

Fire Hazards: Moderate fire hazard. Mixtures of this material as vapor or air-borne can be explosive when above the flash point.

Extinguishing Media: Use extinguishing agents such as: regular dry chemical, carbon dioxide, water, or foam.

Avoid: Using streams of water because the possibility of frothing increases.

Fire-Fighting Equipment/Instructions: Move bottle from fire zone, if it can be done without risk. Avoid breathing in of material or combustion by-products. Put protective clothing and NIOSH approved self-contained breathing apparatus.

NFPA Rating: Health=1 Fire=2 Reactivity=0

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal Precautions, **Protective equipment**, **and emergency procedures**: Use appropriate protective equipment. Keep out of drains and water supplies.

Methods and Materials for clean up: Stay away from heat, flames, sparks and other igniters. Soak up released material with a non-combustible medium such as sand and place into an acceptable vessel for disposal.

SECTION 7 — HANDLING AND STORAGE

Handling: Personal protection equipment should be used while working with these materials.

Storage: Store in a cool, dry place and keep sealed. Follow all regulations or standards that apply. Keep separate from oxidizing materials.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Personal Protection: Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264). Chemical resistant gloves should be worn at all times when handling chemicals. Wear splash resistant safety goggles with a shield.

Engineering Controls: Proper ventilation should be used when appropriate (P271). An approved NIOSH respirator should be worn if exposure limits are excessive. Eye wash stations are important to have nearby in case of accident.

Exposure limits: NIOSH (REL): 350mg/m³ (TWA) 1800mg/m³ (Ceiling, 15min) 1100ppm (IDLH, 10%LEL) OSHA (PEL): 500ppm (2000mg/m³, TWA)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Yellow to Black liquid

Odor: varies

Specific gravity: ~0.8

Melting/Freezing Point: -65°C -15°C

Refractive index: N/A

Flash point: ~20°C

Specific gravity: ~0.8

Relative Density: varies

Evaporation Rate: N/A

Auto-Ignition Temperature: >400°C

Explosive limits, LEL Vol%: ~0.6% Explosive limits, UEL Vol%: ~15%

SECTION 10 — STABILITY AND REACTIVITY

Stable material at normal laboratory conditions.

Not reactive at normal temperature and pressure.

Avoid: Avoid heat, flames, sparks, and any other ignition sources. Dangerous gases can build-up in confined spaces. Container could blow up if exposed to extreme temperatures. Keep out of water supplies and sewers.

Incompatible: Oxidizing materials

Hazardous Decomposition: Thermal decomposition will produce Oxides of Carbon and Sulfur.

Hazardous Polymerization: None

SECTION 11 — TOXICOLOGICAL INFORMATION

Exposure: Takes place by three routes; inhalation, skin, and ingestion.

Symptoms related to toxicology: Could cause irritation, cough, difficulty breathing and skin disorders.

Potential Health Effects

Inhalation: Could cause irritation if heated or misted. These vapors could result in irritation, headache, drowsiness, and loss of coordination.

Skin, eye, and ingestion: Contact with the skin could cause irritation. Large amounts of contact with skin may cause disorders such as dermatitis and rashes. Contact with eyes could results in irritation or conjunctivitis. Gastrointestinal problems might follow ingestion in the form of nausea, vomiting, and diarrhea. Aspiration to the lungs could result in pneumonitis.

Acute Toxicity: Inhalation (Category 2) Rat, Oral LD50: 4300mg/kg Rabbit, Dermal LD50: >2000mg/kg

Skin Corrosion/Irritation: Human, open skin: 100% Rabbit, Skin 500mg (24hr) moderate

Serious eye damage/irritation: Rabbit, Eyes, 100mg mild

Skin sensitization: No data

Germ cell mutagenicity: No data

Reproductive toxicity: Rat, skin TDLo: 200mg/kg (pregnant 1d to 19d), 10 g/kg (pregnant 0-19d)

Carcinogenicity: Not listed as a carcinogen or potential carcinogen. Crude oils listed by IARC as a Group 3, not classified as its

carcinogenicity to humans.

The application of bunker fuel to mice induced benign and malignant skin tumors.

SECTION 12 — ECOLOGICAL INFORMATION

Eco-toxicity Data: Invertebrate, water flea, EC50: <0.26mg/L, static (48hr).

Persistence and Degradability: No data Bio-accumulative Potential: No data

Mobility in Soil: No data

SECTION 13 — DISPOSAL CONSIDERATIONS

Waste disposal should be done in compliance with existing federal, state and local environmental regulations. Do not contaminate any streams, lakes, or ponds.

SECTION 14 — TRANSPORT INFORMATION

DOT: UN#1267 Petroleum Crude Oil

Class: 3 Packing Group: II

IATA UN#1267 Petroleum Crude Oil

Class: 3 Packing Group: II

SECTION 15 — REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Status: Listed on Toxic Substance Control Act Inventory List.

CERCLA Reportable Quantity: Not regulated

RCRA Status: Not regulated

SARA 313 Title III:

Section 302 Extremely Hazardous Substances: None

Section 311/312 Hazardous Categories: Chronic health and acute health.

Section 313 Toxic Chemicals: None

Canadian Regulations WHMIS: None

SECTION 16 — OTHER INFORMATION

The data and information as stated was furnished by the manufacturer/vendor/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.