SECTION 1 IDENTIFICATION

Product Name: Decant
Synonyms: Slurry Oil, Slurry, FCC Bottoms, Resid, Residuum

SDS #: B2

Product Use: Fuel stock
Restrictions on Use: Use only as directed

Manufacturer:
Sinclair Oil Company
P.O. Box 30825
Salt Lake City, Utah 84130

Telephone: General Information: (801) 524-2777 Fax: (801) 524-2740
Contact person: Jeremiah Webster

Emergency Telephone: 800-424-9300 (CHEMTREC) or (703) 527-3887

SDS Date of Preparation: February 18, 2015

SECTION 2: HAZARDS IDENTIFICATION

Classification:

<table>
<thead>
<tr>
<th>Physical</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not hazardous</td>
<td>Acute Toxicity Category 4 (Inhalation)</td>
</tr>
<tr>
<td></td>
<td>Specific Target Organ Toxicity Repeat</td>
</tr>
<tr>
<td></td>
<td>Exposure Category 2</td>
</tr>
<tr>
<td></td>
<td>Carcinogen Category 1B</td>
</tr>
<tr>
<td></td>
<td>Toxic to Reproduction Category 2</td>
</tr>
</tbody>
</table>

Label Elements:
Danger!

Hazard Phrases:
Harmful if inhaled.
May cause cancer if absorbed through the skin.
Suspected of damaging the unborn child.
May causes damage to thymus, liver and blood through prolonged or repeated exposure.

Precautionary Phrases:
Prevention
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist, vapors or spray.
Use only outdoors or in a well-ventilated area.
Response
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF exposed or concerned: Get medical attention.

Storage and Disposal
Store locked up. Dispose of contents and container in accordance with local and national regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalytic Cracked Clarified Petroleum Oil</td>
<td>64741-62-4</td>
<td>100%</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0-2%</td>
</tr>
</tbody>
</table>

SECTION 4 EMERGENCY and FIRST AID PROCEDURES

Eye Contact: Immediately flush eyes with water for several minutes. Get medical attention if irritation persists.

Skin Contact: Remove contaminated clothing. Wash thoroughly with soap and water. Get medical attention if irritation develops or persists. Launder clothing before reuse.

Inhalation: Remove to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get medical attention.

Ingestion: Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconsciousness person. Get medical attention.

Most important symptoms/effects, acute and delayed: May cause mild eye irritation. Prolonged skin contact may cause irritation, cracking and drying of the skin. Inhalation may cause respiratory irritation and central nervous system effects. Harmful or fatal if swallowed. May cause cancer if absorbed through the skin. May cause developmental toxicity based on animal data. Prolonged or repeated exposure may damage thymus, liver and blood.

Indication of immediate medical attention and special treatment, if necessary: No immediate medical attention is required.

SECTION 5 FIRE and EXPLOSION HAZARD DATA

Suitable extinguishing media: Use water fog, foam, carbon dioxide, or dry chemical. Do not use a steady stream of water. Product may float on the surface of water and create a floating fire hazard.

Specific hazards arising from the chemical: This product will burn under conditions. Closed containers may burst if exposed to extreme heat. Combustion may produce carbon, nitrogen and sulfur oxides and other products of incomplete combustion.

Special protective equipment and precautions for fire-fighters: Firefighters should wear full emergency equipment and a NIOSH approved positive pressure self-contained breathing apparatus. Cool fire exposed container with water. Do not allow run-off from firefighting to enter drains or water courses.
SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate protective equipment. Wash thoroughly after handling.

Environmental hazards: Avoid release into the environment. Report spill as required by local and federal regulations.

Methods and materials for containment and cleaning up: Contain with an inert absorbent and place into a closable container for disposal.

SECTION 7 HANDLING and STORAGE

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Wash thoroughly after handling. Use with adequate ventilation. Keep containers closed when not in use.

Do not cut, drill, grind or weld on or near containers, even empty containers. Empty containers retain product residues can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated area away from oxidizing agents and other incompatible materials. Protect containers from physical damage.

SECTION 8 EXPOSURE CONTROLS and PERSONAL PROTECTION

Exposure Guidelines:

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>EXPOSURE LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalytic Cracked Clarified Petroleum Oil Naphthalene</td>
<td>100 mg/m³ TWA ACGIH TLV (inhalable fraction and vapor)</td>
</tr>
<tr>
<td></td>
<td>10 ppm TWA OSHA PEL</td>
</tr>
<tr>
<td></td>
<td>10 ppm (skin) TWA ACGIH TLV</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: Use with local exhaust ventilation to maintain exposures below the occupational exposure limits.

Respiratory protection: If exposures are exceeded, use a NIOSH approved organic vapor respirator appropriate for the form and concentration of the contaminants should be used. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

Skin protection: Impervious gloves such as neoprene or nitrile rubber recommended to prevent skin contact.

Eye protection: Wear chemical safety goggles to avoid eye contact.

Other: Impervious coveralls, apron and boots is required to prevent skin contact and contamination of personal clothing. A safety shower and eye wash should be available in the immediate work area.

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES
Appearance (physical state, color, etc.): Brown-black liquid
Odor: Petroleum hydrocarbon odor.

<table>
<thead>
<tr>
<th>Odor threshold: Not available</th>
<th>pH: Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Pourpoint: Not available</td>
<td>Boiling Point: 600°F (315.5°C)</td>
</tr>
<tr>
<td>Flash point: &gt;300°F (&gt;148.9°C)</td>
<td>Evaporation rate: Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas): Not applicable</td>
<td></td>
</tr>
<tr>
<td>Flammable limits: LEL: 1%</td>
<td>UEL: 6%</td>
</tr>
<tr>
<td>Vapor pressure: &lt;1 kPa @ 20°C</td>
<td>Vapor density: &gt;1</td>
</tr>
<tr>
<td>Relative density: 0.7-1.1</td>
<td>Solubility: Insoluble in water</td>
</tr>
<tr>
<td>Partition coefficient: n-ctanol/water: Not available</td>
<td>Auto-ignition temperature: 765°F (407.2°C)</td>
</tr>
<tr>
<td>Decomposition temperature: Not available</td>
<td>Viscosity: 40-110</td>
</tr>
</tbody>
</table>

SECTION 10 STABILITY and REACTIVITY

Reactivity: This product is not expected to be reactive.
Chemical stability: The product is stable.
Possibility of hazardous reactions: None known.
Conditions to avoid: Keep away from heat and all sources of ignition.
Incompatible materials: Avoid oxidizing agents, acids, alkalies and halogens.
Hazardous decomposition products: Thermal decomposition may yield carbon oxides and other products of incomplete combustion.

SECTION 11 TOXICOLOGICAL INFORMATION

Health Hazards:

Inhalation: Mists may cause respiratory irritation, difficulty in breathing and damage to the lungs.

Skin Contact: Prolonged skin contact may cause irritation, cracking and defatting of the skin.

Eye Contact: Eye contact may cause mild irritation with redness, tearing and pain.

Ingestion: Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects of Overexposure: Prolonged occupational overexposure may cause dermatitis. In a sub-chronic dermal study, catalytic cracked clarified petroleum oil was applied to the skin of rats for 13 weeks at doses from 1.6 to 530 mg/kg. Systemic effects included alterations in liver (hepatic congestion, necrosis, vacuolar change) at 53 mg/kg and thymus (atrophy, congestion) in males at 10.6 mg/kg and in females at 53 mg/kg. Chronic inflammation of the thyroid (lymphocytic thyroiditis) was seen 53 mg/kg and cellular depletion of bone marrow at 106 mg/kg were also present. NOAEL for systemic toxicity in is 1.06 mg/kg

Mutagenicity: Catalytic Cracked Clarified Petroleum Oil was negative in an in vivo mammalian erythrocyte micronucleus test.

Reproductive Toxicity: In a developmental study, catalytic cracked clarified petroleum oil was applied to the skin of pregnant rats from day 0-19 of gestation for 6 hr per day. Significant, dose-related reductions in gravid uterine weight (decreased 40-95%) and an increased incidence of early resorptions (elevated 8-24 fold) were apparent in dams receiving 1 mg/kg and above. The number of dead or resorbed fetuses was increased 8-16 fold over that of the controls. Fetal body weight was also significantly decreased. A reduction in the extent of ossification of the caudal
vertebrae, metacarpals and phalanges (defined as variations) was also apparent. NOAEL for maternal toxicity and developmental toxicity 0.05 mg/kg

**Carcinogenicity:** Naphthalene is listed by IARC as “Possibly Carcinogenic to Humans”, Group 2B, as “Reasonably Anticipated to be a Human Carcinogen” and as a “Confirmed Animal Carcinogen with Unknown Relevance to Humans”, A3 by ACGIH. The dermal carcinogenicity of catalytic cracked clarified oil was tested in a lifetime mouse skin painting study. Clear, significant increase in histologically diagnosed malignant skin tumors following lifetime treatment.

**Acute Toxicity Values:** **Acute Toxicity Estimate:** Oral 3891 mg/kg, Inhalation 4.1 mg/L/4 hr, Dermal: >2000 mg/kg

Catalytic Cracked Clarified Petroleum Oil: Oral rat LD50 4320 mg/kg, Inhalation rat LC50 4.1 mg/L/4 hr, Dermal rabbit LD50 >2000 mg/kg

Naphthalene: Oral rat LD50 533 mg/kg, Inhalation rat LC0 0.4 mg/L (highest attainable concentration), Dermal rat LC50 >2500 mg/kg

**SECTION 12: ECOLOGICAL INFORMATION**

**Ecotoxicity:**
Catalytic Cracked Clarified Petroleum Oil: 96 hr LL50 Oncorhynchus mykiss 79 mg/kg, 48 hr EL50 daphnia magna 0.22 mg/L, 72 hr EL50 Pseudokirchnerella subcapitata 0.32 mg/L

Naphthalene: 96 hr LC50 Pimephales promelas 6.08 mg/L, 48 hr EC50 daphnia magna 2.16 mg/L

**Persistence and degradability:** Catalytic cracked clarified petroleum oil is not readily biodegradable.

**Bioaccumulative potential:** The bioaccumulation potentials of the major components of catalytic cracked clarified petroleum oil range from low to high. Some higher molecular weight components may be taken up by fish and domestic animals and bioconcentrated if they persist in environment.

**Mobility in soil:** No data available.

**Other adverse effects:** None known.

**SECTION 13: DISPOSAL INFORMATION**

Waste Disposal Method: Dispose in accordance with all local, state and federal regulations.

**SECTION 14: TRANSPORTATION INFORMATION**

<table>
<thead>
<tr>
<th>UN Number</th>
<th>Proper shipping name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>Environmental Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDG</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMDG</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IATA</td>
<td>Not Regulated</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable.

**Special precautions:** None known.

**SECTION 15: REGULATORY INFORMATION**
Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product has a Reportable Quantity (RQ) of 5,000 lbs. (based on the RQ for Naphthalene of 100 lbs). Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

EPA SARA 311 Hazard Classification: Acute Health, Chronic Health, Fire Hazard

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS Number</th>
<th>Release Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0-2%</td>
</tr>
</tbody>
</table>

CALIFORNIA PROPOSITION 65: This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS Number</th>
<th>Release Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0-2%      Cancer</td>
</tr>
</tbody>
</table>

WHMIS CLASSIFICATION: Class D, Division 2A (Very Toxic Material Causing Other Toxic Effects)

This product has been classified in accordance with the hazard criteria in the CPR and the SDS contains all the information required by the CPR.

Australia AICS: All of the components are listed on the Australian Inventory of Chemical Substances.

Canada DSL: All of the components are listed on the Canadian Domestic Substances List.

China: All the components are listed on Inventory of Existing Chemical Substances in China.

European EINECS: All of the ingredients are listed on the EINECS inventory.

Korea: All the components are listed on the Korean Existing Chemical List.

New Zealand: All the components are listed on the New Zealand Inventory of Chemicals.

US EPA Toxic Substances Control Act: All of the components of this product are listed on the TSCA inventory.

SECTION 16: OTHER INFORMATION

SDS Revision History: Converted to GHS format – all Sections revised
Date of current revision: February 18, 2015
Date of previous revision: August 26 2010

National Fire Protection Association (U.S.A)

Health: 1
- Flammability: 1
- Instability: 0
- Specific Hazard: -

Disclaimer: This product material safety data sheet provides health and safety information. The product should be used in applications consistent with this product literature. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations.

This material safety data sheet is provided in good faith and meets the requirements of the hazardous communication provisions of SARA TITLE III and 29 CFR 1910.1200(g) of the OSHA regulations. The above information is based on review of available information Sinclair believes is reliable and is supplied for informational purposes only. Sinclair does not guarantee its completeness or accuracy. Since conditions of use are outside the control of Sinclair, Sinclair disclaims all warranties, express or implied, and any liability for damage or injury which results from the use of the above data. Nothing herein is intended to permit infringement of valid patents and licenses.