



MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<u>Company Name</u> Nu-Calgon Wholesaler, Inc.	<u>Phone Number</u> (314) 469-7000 / (800) 554-5499		<u>CHEMTREC</u> (800) 424-9300	
<u>Street Address</u> 2008 Altom Court	<u>City</u> St. Louis	<u>State</u> MO	<u>Postal Code</u> 63146-4151	<u>Last Update</u> 11/9/06
<u>Product Name</u> C-5 Refrigeration Oil	<u>Product Number</u> 4305	<u>Product Use</u> Refined Naphthenic Oil		<u>EPA Registration #</u> N/A

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	% By Wt.	CAS Number	TLV	PEL
Heavy Hydrotreated Naphthenic Distillates (petroleum)	100.0 %	64742-52-5	5 mg/m3	5 mg/m3

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview: Not expected to cause a severe emergency hazard.

Potential Health Effects

Eyes: Tests on similar materials suggest that no eye effect be expected.

Skin: Tests on similar materials indicate that no significant adverse health effects are expected to occur upon short-term exposure. Prolonged or repeated skin contact may cause skin irritation.

Ingestion: Tests on similar materials indicate no significant adverse effects expected. Practically non-toxic.

Inhalation: Tests on similar material indicate no acute effects are expected.

Chronic Exposure: Prolonged and/or repeated contact with this material may produce skin irritation and inflammation.

Carcinogenicity: This product does not require a cancer hazard warning in accordance with the OSHA Hazard Communication Standard.

Medical Conditions Aggravated by Exposure: Personnel with pre-existing skin disorders should avoid contact with this product. Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

SECTION 4 – FIRST AID MEASURES

Eyes: If splashed into eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

Skin: In case of skin contact, remove any contaminated clothing and wash skin with soap and water. Launder or dry-clean clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury. Prolonged or repeated skin contact may cause skin irritation.

Ingestion: Product is practically non-toxic. Do not induce vomiting. Obtain emergency medical attention.

Inhalation: Vapor pressure is very low. Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start resuscitation; administer oxygen, if available. If overexposed to oil mist, remove from exposure until excessive oil mist condition subsides.

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: >395°F

Autoignition Temp: 343°C/650°F

Hazardous Products of Combustion: Fumes, smoke, carbon monoxide, aldehydes and other decomposition products, in the case of incomplete combustion.

Flammable Limits in Air: No Data.

Extinguishing Media: Foam, water spray (fog), dry chemical, carbon dioxide, and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on size or potential size of fire and circumstances related to the situation.

Fire and Explosion Hazards: Slightly combustible. OSHA/NFPA Class IIIB Combustible Liquid. If heated above its flash point will release flammable vapors which can burn in the open or be explosive in confined spaces if exposed to ignition source. Mists or sprays may be flammable below oils normal flash point. Keep away from extreme heat or open flame.

Special Firefighting Procedures: Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists. The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials", Tenth Edition (1991): Use water spray, dry chemical, foam or carbon dioxide to extinguish the fire. Use water to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing of gases, vapor, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill or Leak: CLEAN WATER ACT / OIL POLLUTION ACT This product may be classified as an oil under Section 311 of the Clean Water Act, and under the Oil Pollution Act. Discharges or spills into or leading to surface waters that cause a sheen must be reported to the National Response Center. Recover free product. Add sand, earth, or other suitable absorbent to spill area. Minimize skin contact. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Assure conformity with applicable governmental regulations.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment: Keep away from flames, sparks or hot surfaces. Never use a torch to cut or weld on or near container. Empty oil containers can contain explosive vapors. Wash hands with soap and water before eating, drinking, smoking or use of toilet facilities. Do not use gasoline, solvents, kerosene, or harsh abrasive skin cleaners for washing exposed skin areas. Take a shower after work if general contact occurs. Remove oil-soaked clothing and launder before reuse. Launder or discard contaminated shoes and leather gloves.

Storage Requirements: NFPA Class IIIB storage. "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean containers since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Normally not required if adequate ventilation. If occupational exposure limits are exceeded, wear NIOSH/MSHA approved apparatus.

Eye Protection: Use safety glasses or splash goggles when eye contact may occur. Have suitable eyewash water available.

Protective Clothing: Avoid prolonged and/or repeated skin contact. If prolonged contact cannot be avoided, wear protective impervious clothing. Acceptable materials for gloves are polyvinyl chloride, neoprene, nitrile, polyvinyl alcohol, and viton.

Exposure Guidelines: If there is a likelihood of splashing, an oil resistant clothing should be worn. Never wear oil soaked clothing. Launder or dry clean before wearing. Discard oil soaked shoes. Affix warning labels on containers in accordance with 29 CFR 1910.1200 (Hazard Communication Standard). Heavy Hydrotreated Naphthenic Distillate (petroleum) 100.0% / CAS NUMBER: 64742-44-5 / Exposure Limits: OIL MIST / OSHA PEL MIST 5 MG/M3 8 HRS / ACGIH TLV MIST 5 MG/M3 8 HRS

Specific Engineering Controls (such as ventilation, enclosed process): Normally not required if adequate ventilation. If occupational exposure limits are exceeded, wear NIOSH/MSHA approved apparatus.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Liquid	Freezing Point: No Data.°C/No Data.°F	% Volatile by Weight: nil%
Color: Clear pale straw	Vapor Density [air =1]: >5	Evaporation Rate: No Data.
Odor: Light bland petroleum	Vapor Pressure: <0.0001 mm Hg @ 20°C	Specific Gravity: 0.91 Water = 1
Boiling Point: >274°C/>526°F	Solubility in Water: negligible	pH (concentrate): No Data.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable. Will not react violently with water.

Hazardous Polymerization: will not occur.

Incompatibilities: Strong oxidizers such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, etc., as this presents a serious explosion hazard.

Reactive Conditions to avoid: Sources of ignition.

Decomposition Products: Combustion may produce carbon monoxide and other asphyxiants.

SECTION 11 – TOXICOLOGICAL INFORMATION

<u>Hazardous Ingredients</u>	<u>CAS #</u>	<u>EINECS #</u>	<u>LD 50 of Ingredient</u> (Specify Species)	<u>LC50 of Ingredient</u> (Specify Species)
Product has a low order of acute and dermal toxicity, but minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.	No Data.	No Data.	No Data.	No Data.
Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.				
In accordance with the current OSHA Hazard Communication Standard criteria, this product does not require a cancer hazard warning. This is because the product is formulated from base stocks which are severely hydrotreated, severely solvent extracted, and/or processed by mild hydrotreatment and extraction. Alternatively, it may consist of components not otherwise affected by IARC criteria, such as atmospheric				
distillates or synthetically derived materials, and as such is not characterized by current IARC classification criteria.				

SECTION 12 – ECOLOGICAL INFORMATION

<u>Hazardous Ingredients</u>	<u>Aquatic Toxicity Data</u>
No Data.	No Data.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal: Follow federal, state and local regulations. Not a RCRA hazardous waste if uncontaminated. If "used", RCRA criteria must be determined. Do not flush to drain/storm sewer. Contract to authorized disposal service. If permitted incineration may be practical. Recommend recycling.

SECTION 14 – TRANSPORTATION INFORMATION

Special Shipping Information: No Data.

<u>Purview</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT (Land)	Not regulated by DOT.	No Data.	No Data.	No Data.
IMO (Water)	No Data.	No Data.	No Data.	No Data.
ICAO (Air)	No Data.	No Data.	No Data.	No Data.

SECTION 15 – REGULATORY INFORMATION

WHMIS Classification: (Workplace Hazardous Material Information System)	NOT CONTROLLED
SARA Title III: (Superfund Amendments & Reauthorization Act)	SARA 311 Categories: Immediate (Acute) Health Effects --N Delayed (Chronic) Health Effects --Y Fire Hazard --N Sudden Release of Pressure --N Reactivity Hazard --N SECTION 313 SUPPLIER NOTIFICATION No chemicals in this product exceed the De Minimus reporting level established by SARA Title III, Section 313 and 40 CFR 372.
OSHA: (Occupational Safety & Health Administration)	No Data.
TSCA: (Toxic Substance Control Act)	The components of this product are listed on the EPA/TSCA inventory of chemicals.
VOC: (volatile Organic Compounds)	No Data.
CPR: (Canadian Controlled Products Regulations)	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.
EINECS: (European Inventory of Existing Commercial Chemical Substances)	This product is listed on the European Inventory of Existing Commercial Substances under EINECS No. 265-146-1. This Product has an IP 346 value of <3%. This product is not required to be labeled according to the European Directive 67/548/EEC.
DSL / NDSL: (Canadian Domestic Substance List)(Non-Domestic Substance List)	This product is listed on the Canadian (DSL) Domestic Substances List.
CERCLA: (Comprehensive Response Compensation & Liability Act)	No chemicals in this product are subject to the reporting requirements of CERCLA.
IDL: (Canadian Ingredient Disclosure List)	No Data.
NFPA (HMIS) Rating: (Hazardous Materials Identification System)	Health: 0 Fire: 1 Reactivity: 0

SECTION 16 – OTHER INFORMATION

VISCOSITY: 314.1 SUS @ 100°F / MELTING POINT: -30°F -34°C(D97) / Density lbs/Gal. 7.68

The information contained herein is based on the data available to us and is believed to be correct. However, Nu-Calgon Wholesaler Inc. makes no warranty, expressed, or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Nu-Calgon Wholesaler Inc. assumes no liability for injury from the use of the product described herein.