



## MATERIAL SAFETY DATA SHEET

### 1. Product and Company Identification

<b>Product name</b>	Vacuum Pump Oil (4383-07, 4383-24, 4383-34, 4383-01)
<b>CAS #</b>	Mixture
<b>Product Use</b>	Lubricating vacuum pumps
<b>Manufacturer</b>	Nu-Calgon 2008 Altom Court St. Louis, MO 63146 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHEMTREC)

### 2. Hazards Identification

<b>Emergency overview</b>	MAY CAUSE EYE AND SKIN IRRITATION.
<b>Potential short term health effects</b>	
<b>Routes of exposure</b>	Eye, Skin contact, Inhalation, Ingestion.
<b>Eyes</b>	Direct contact with eyes may cause temporary irritation.
<b>Skin</b>	No adverse effects due to skin contact are expected.
<b>Inhalation</b>	No adverse effects due to inhalation are expected.
<b>Ingestion</b>	May cause stomach distress, nausea or vomiting.
<b>Target organs</b>	Skin. Eyes.
<b>Chronic effects</b>	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
<b>Signs and symptoms</b>	Symptoms may include redness, oedema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
<b>Potential environmental effects</b>	See section 12.

### 3. Composition/Information on Ingredients

<b>Composition comments</b>	None by WHMIS criteria.
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### 4. First Aid Measures

<b>First aid procedures</b>	
<b>Eye contact</b>	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
<b>Skin contact</b>	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
<b>Inhalation</b>	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
<b>Ingestion</b>	Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
<b>Notes to physician</b>	Treat symptomatically.
<b>General advice</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

### 5. Fire Fighting Measures

<b>Flammable properties</b>	Not flammable by WHMIS criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Water Fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). Sand.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment for firefighters</b>	Not available
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available.
<b>Sensitivity to static discharge</b>	Not available.

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## 6. Accidental Release Measures

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<b>Personal precautions</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
<b>Environmental precautions</b>	Do not discharge into lakes, streams, ponds or public waters.
<b>Methods for containment</b>	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Following product recovery, flush area with water. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

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## 7. Handling and Storage

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<b>Handling</b>	Use only with adequate ventilation. Avoid breathing vapours or mists of this product. Avoid contact with eyes, skin and clothing. When using do not eat or drink. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Keep container tightly closed.
<b>Storage</b>	Store in a closed container away from incompatible materials. Keep out of reach of children.

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## 8. Exposure Controls/Personal Protection

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<b>Exposure limits</b>	Not applicable.
<b>Engineering controls</b>	General ventilation normally adequate.
<b>Personal protective equipment</b>	
<b>Eye/Face protection</b>	Not normally required when used as directed. Safety glasses if eye contact is possible.
<b>Hand protection</b>	Not normally required when used as directed. If there is constant skin contact, rubber gloves are recommended.
<b>Skin and body protection</b>	As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

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## 9. Physical and Chemical Properties

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<b>Appearance</b>	Clear
<b>Colour</b>	Colourless
<b>Form</b>	Liquid.
<b>Odour</b>	Slight hydrocarbon
<b>Odour threshold</b>	Not available.
<b>Physical state</b>	Liquid.
<b>pH</b>	Not available
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	> 137.78 °C (> 280 °F)
<b>Pour point</b>	-15 °C (5 °F)

<b>Evaporation rate</b>	Not available
<b>Flash point</b>	107.2 °C (225.0 °F) Cleveland open cup
<b>Auto-ignition temperature</b>	> 160 °C (> 320 °F) Not available
<b>Flammability Limits in Air, Upper, % by Volume</b>	< 10
<b>Flammability Limits in Air, Lower, % by Volume</b>	> 1
<b>Heat of combustion</b>	Not available.
<b>Vapour pressure</b>	< 0.5 mPa
<b>Vapour density</b>	> 1
<b>Specific gravity</b>	< 1
<b>Partition coefficient (n-octanol/water)</b>	> 6
<b>Solubility (Water)</b>	Negligible
<b>Relative density</b>	Not available.
<b>Viscosity</b>	48.65 mm <sup>2</sup> /s
<b>VOC</b>	Not available
<b>Percent volatile</b>	Not available

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### 10. Stability and Reactivity

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<b>Reactivity</b>	This product may react with strong oxidising agents.
<b>Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Not available.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon.

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### 11. Toxicological Information

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<b>Effects of acute exposure</b>	
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Inhalation</b>	No adverse effects due to inhalation are expected.
<b>Ingestion</b>	May cause stomach distress, nausea or vomiting.
<b>Sensitisation</b>	Non-hazardous by WHMIS criteria.
<b>Chronic effects</b>	The finished product is not expected to have chronic health effects.
<b>Carcinogenicity</b>	Non-hazardous by WHMIS criteria.
<b>Mutagenicity</b>	Non-hazardous by WHMIS criteria.
<b>Reproductive effects</b>	Non-hazardous by WHMIS criteria.
<b>Teratogenicity</b>	Non-hazardous by WHMIS criteria.
<b>Name of Toxicologically Synergistic Products</b>	Not available.

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### 12. Ecological Information

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<b>Ecotoxicity</b>	Not available.
<b>Persistence and degradability</b>	This product is not readily biodegradable.
<b>Bioaccumulation/accumulation</b>	Bioaccumulation potential.
<b>Mobility in environmental media</b>	Not available.
<b>Environmental effects</b>	Not available.
<b>Aquatic toxicity</b>	Not available.

**Partition coefficient**

&gt; 6

**Chemical fate information**

Not available.

**13. Disposal Considerations****Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

**Waste from residues / unused products**

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**14. Transport Information****Transportation of Dangerous Goods (TDG - Canada)**

Not regulated as dangerous goods.

**15. Regulatory Information****Canadian federal regulations**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**WHMIS status**

Not Controlled

**Inventory status**

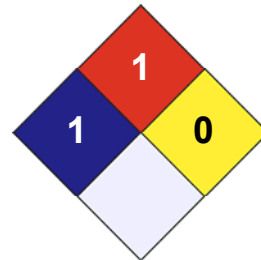
Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**16. Other Information**

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

<b>HEALTH</b>	/ 1
<b>FLAMMABILITY</b>	1
<b>PHYSICAL HAZARD</b>	0
<b>PERSONAL PROTECTION</b>	X

**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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**Expiry Date**

15-July-2017

**Prepared by**

Nu-Calgon Technical Service Phone: (314) 469-7000

**Other information**

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.  
This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.