

**MATERIAL SAFETY DATA SHEET**

**SECTION 1: IDENTIFICATION**

**Product identifier** : JACK OIL

**Product Use** : Hydraulic oil

**Chemical Family** : Mixture.

**Manufacturer part no.** : J132C

**Supplier's name and address:**

**Radiator Specialty Co., of Canada**

1711 Aimco Blvd.  
Mississauga, ON, Canada  
L4W 1H7

**Manufacturer's name and address:**

Refer to Supplier

**Information Telephone #** : (905) 625-9117 (Monday - Friday, 8 AM - 4 PM)

**24 Hr. Emergency Tel #** : 613-996-6666 (CANUTEC)

**SECTION 2 - HAZARDS IDENTIFICATION**

**Classification** : WHMIS information: This product is not a WHMIS controlled product in Canada. It does not meet any of the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR).

**Emergency Overview** : Clear amber liquid. Petroleum odour.  
Fumes from heated product or mists may irritate respiratory tract. May cause mild eye irritation.  
Prolonged or repeated skin contact may cause drying and irritation.

**POTENTIAL HEALTH EFFECTS:**

**Signs and symptoms of short-term (acute) exposure**

*Inhalation* : If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract.

*Skin* : Direct skin contact may result in little or no irritation.

*Eyes* : May cause mild transient irritation.

*Ingestion* : May cause irritation of mouth, throat, and stomach. May cause nausea, stomach pain and vomiting.

**Effects of long-term (chronic) exposure**

: Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin.

**Carcinogenic status** : See TOXICOLOGICAL INFORMATION, Section 11.

**Additional health hazards** : See TOXICOLOGICAL INFORMATION, Section 11.

**Potential environmental effects**

: See ECOLOGICAL INFORMATION, Section 12.

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

<b><u>Ingredients</u></b>	<b>CAS #</b>	<b>Wt.%</b>
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	60.00 - 100.00
Zinc compounds	*N/Av	< 0.3%

\*Note: The specific identity of this component is considered proprietary information.

**SECTION 4 - FIRST AID MEASURES**

**Inhalation** : If inhaled, move to fresh air. If breathing has stopped, give artificial respiration. Consult a physician.

- Skin contact** : Remove contaminated clothing. Wash off with soap and plenty of water. If irritation persists, seek prompt medical attention.
- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, seek prompt medical attention.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms persist.
- Notes For Physician** : Treat symptomatically.

## SECTION 5 - FIRE FIGHTING MEASURES

### Fire hazards/conditions of flammability

- : Not flammable under normal conditions of use. However, may ignite if exposed to extreme heat and flame. Product may float, and be re-ignited at the water's surface. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapours are heavier than air and collect in confined and low-lying areas.

- Oxidizing properties** : None known.

### Explosion data: Sensitivity to mechanical impact / static discharge

- : Not expected to be sensitive to mechanical impact or static discharge.

- Suitable extinguishing media** : Dry chemical, foam, carbon dioxide and water fog. Do not use water jet, as this may spread burning material.

### Special fire-fighting procedures/equipment

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

### Hazardous combustion products

- : Carbon oxides; Phosphorus compounds; Nitrogen oxides (NOx); Polycyclic aromatic hydrocarbons; Sulphur oxides; Other unidentified organic compounds.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions** : All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

- Environmental precautions** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

- Spill response/cleanup** : Ventilate area of release. Remove all sources of ignition. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required.

- Prohibited materials** : Do not use combustible absorbents, such as sawdust.

## SECTION 7 - HANDLING AND STORAGE

- Safe Handling procedures** : Use with adequate ventilation. Wear suitable protective equipment during handling. Avoid breathing vapours. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and flame. Avoid contact with incompatible materials. Wash thoroughly after handling. Keep container tightly closed when not in use.

- Storage requirements** : Store in a cool, dry, well-ventilated area. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

- Incompatible materials** : Strong oxidizing agents.

- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

**SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION****Exposure Limits**

<b>Ingredients</b>	<b><u>ACGIH TLV</u></b>		<b><u>OSHA PEL</u></b>	
	<b><u>TWA</u></b>	<b><u>STEL</u></b>	<b><u>PEL</u></b>	<b><u>STEL</u></b>
Distillates (petroleum), hydrotreated heavy naphthenic	5 mg/m <sup>3</sup> (As 'Oil mist, mineral') (inhalable)	N/Av	5 mg/m <sup>3</sup> (As 'Oil mist, mineral')	N/Av
Zinc compounds	N/Av	N/Av	N/Av	N/Av

**Ventilation and engineering measures**

: Use in a well-ventilated area. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

**Respiratory protection**

: If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised. Advice should be sought from respiratory protection specialists.

**Skin protection**

: Gloves impervious to the material are recommended. Advice should be sought from glove suppliers. Depending on conditions of use, an impervious apron should be worn.

**Eye / face protection**

: Safety glasses with side-shields or chemical splash goggles.

**Other protective equipment**

: An eyewash station and safety shower should be made available in the immediate working area.

**General hygiene considerations**

: Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, smoke or use cosmetics while working with this product. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	: liquid	<b>Appearance</b>	: Light amber liquid.
<b>Odour</b>	: Petroleum odour.	<b>Odour threshold</b>	: N/Av
<b>pH</b>	: N/Av		
<b>Boiling point</b>	: 240.5°C	<b>Specific gravity</b>	: 0.895 @ 20°C
<b>Melting/Freezing point</b>	: N/Av	<b>Coefficient of water/oil distribution</b>	: N/Av
<b>Vapour pressure (mmHg @ 20° C / 68° F)</b>	: 0.008	<b>Solubility in water</b>	: Insoluble.
<b>Vapour density (Air = 1)</b>	: 4.3	<b>Evaporation rate (n-Butyl acetate = 1)</b>	: < 1
<b>Volatile organic Compounds (VOC's)</b>	: N/Av	<b>Volatiles (% by weight)</b>	: N/Av
<b>Flash point</b>	: 160°C		
<b>Flash point Method</b>	: Cleveland Open Cup	<b>Auto-ignition temperature</b>	: Not available.
<b>Lower flammable limit (% by vol.)</b>	: N/Av	<b>Upper flammable limit (% by vol.)</b>	: N/Av
<b>Flame Projection Length</b>	: N/Av	<b>Flashback observed</b>	: N/Av
<b>Absolute pressure of container</b>	: N/Av	<b>Viscosity</b>	: N/Av
<b>General Information</b>	: No additional information.		

**Section 10: STABILITY AND REACTIVITY**

<b>Stability and reactivity</b>	: Stable under the recommended storage and handling conditions prescribed.
<b>Hazardous polymerization</b>	: Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	: Avoid heat and open flame.
<b>Materials To Avoid And Incompatibility</b>	: Strong oxidizing agents
<b>Hazardous decomposition products</b>	: None known, refer to hazardous combustion products in Section 5.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

<b>Target organs</b>	: Eyes, skin, respiratory system and digestive system.
----------------------	--

- Routes of exposure** : *Inhalation:* YES *Skin Absorption:* NO *Skin & Eyes:* YES *Ingestion:* YES  
**Irritancy** : May be mildly irritating to eyes and skin.  
**Toxicological data** : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<u>Ingredients</u>	<b>LC<sub>50</sub> (4hr)</b>	<b>LD<sub>50</sub></b>	
	<u>inh. rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Distillates (petroleum), hydrotreated heavy naphthenic	> 5 mg/L (mist)	> 5000 mg/kg	> 2000 mg/kg
Zinc compounds	N/Av	N/Av	N/Av

- Carcinogenic status** : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP. Use caution when pouring this material. This product can generate a complex mixture of airborne material during heating or in a fire. This combustion material can include carcinogenic polycyclic aromatic hydrocarbons.
- Reproductive effects** : Not expected to have other reproductive effects.
- Teratogenicity** : Not expected to be a teratogen.
- Mutagenicity** : Not expected to be mutagenic in humans.
- Epidemiology** : None known or reported by the manufacturer.
- Sensitization to material** : Not expected to be a skin or respiratory sensitizer.
- Synergistic materials** : None known or reported by the manufacturer.
- other important hazards** : None known or reported by the manufacturer.
- Conditions aggravated by overexposure** : Pre-existing skin and respiratory disorders.

**SECTION 12 - ECOLOGICAL INFORMATION**

- Ecotoxicity** : The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

See the following tables for individual ingredient ecotoxicity data.

**Ecotoxicity data:**

<u>Ingredients</u>	<b>CAS No</b>	<b>Toxicity to Fish</b>		
		<b>LC50 / 96h</b>	<b>NOEC / 21 day</b>	<b>M Factor</b>
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 5000 mg/L (Rainbow trout)	N/Av	None.
Zinc compounds	*N/Av	N/Av	N/Av	None.

<u>Ingredients</u>	<b>CAS No</b>	<b>Toxicity to Daphnia</b>		
		<b>EC50 / 48h</b>	<b>NOEC / 21 day</b>	<b>M Factor</b>
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 1000 mg/L (Daphnia magna)	N/Av	None.
Zinc compounds	*N/Av	N/Av	N/Av	None.

<u>Ingredients</u>	<b>CAS No</b>	<b>Toxicity to Algae</b>		
		<b>EC50 / 96h or 72h</b>	<b>NOEC / 96h or 72h</b>	<b>M Factor</b>
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	> 1000 mg/L/96hr (Green algae)	N/Av	None.
Zinc compounds	*N/Av	N/Av	N/Av	None.

- Mobility** : No data is available on the product itself.

**Persistence** : No data is available on the product itself. Contains: Distillates (petroleum), hydrotreated heavy naphthenic.  
Distillates (petroleum), hydrotreated heavy naphthenic is not considered readily biodegradable and is insoluble in water. The substance may persist in the environment.

**Bioaccumulation potential** : No data is available on the product itself. See the following data for ingredient information.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	> 20	N/Av

**Other Adverse Environmental effects**

: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

**Handling for Disposal** : Handle waste according to recommendations in Section 7.

**Methods of Disposal** : Dispose of in accordance with federal, provincial and local hazardous waste laws.

**SECTION 14: TRANSPORT INFORMATION**

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	None	Not regulated.	Not regulated	None	
<b>TDG Additional information</b>	None.				

**SECTION 15 - REGULATORY INFORMATION**

**Labelling:**

This product is not a WHMIS controlled product in Canada. As such, this product does not require a WHMIS Supplier label.

**Canadian Information:**

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

**This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.**

**US Federal Information:**

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.


**SECTION 16 - OTHER INFORMATION**

**Legend** : ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Services  
HSDB: Hazardous Substances Data Bank  
IARC: International Agency for Research on Cancer  
Inh: Inhalation  
LC: Lethal Concentration  
LD: Lethal Dose  
MSHA: Mine Safety and Health Administration  
N/Ap: Not Applicable  
N/Av: Not Available  
NIOSH: National Institute of Occupational Safety and Health

NOEC: No observable effect concentration  
 NTP: National Toxicology Program  
 OECD: Organisation for Economic Co-operation and Development  
 OSHA: Occupational Safety and Health Administration  
 PEL: Permissible exposure limit  
 RTECS: Registry of Toxic Effects of Chemical Substances  
 STEL: Short Term Exposure Limit  
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
 TLV: Threshold Limit Values  
 TWA: Time Weighted Average  
 WHMIS: Workplace Hazardous Materials Identification System

**References**

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2016.
- 2. International Agency for Research on Cancer Monographs, searched 2016.
- 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2016 (Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheets from manufacturer.
- 5. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2016.

<p><b><u>Prepared for:</u></b>                  Radiator Specialty Co. of Canada                  1711 Aimco Blvd.                  Mississauga, ON, Canada, L4W 1H7                  Telephone: 905-625-9117 (Mon. - Fri., 8 AM - 4 PM)                  Please direct all enquiries to Radiator Specialty.</p>	
<p><b><u>Prepared by:</u></b>                  ICC The Compliance Center Inc.  <a href="http://www.thecompliancecenter.com">http://www.thecompliancecenter.com</a></p>	

**DISCLAIMER OF LIABILITY**

This Material Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Radiator Specialty Co. of Canada and CCOHS' Web Information Service. The information in the Material Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Radiator Specialty Co. of Canada expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this MSDS does not apply to use with any other product or in any other process.

This Material Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Radiator Specialty Co. of Canada.

**MSDS Preparation Date (mm/dd/yyyy)**

: 07/26/2007

**MSDS Revision Date (mm/dd/yyyy)**

: 06/29/2016

**Revision No.**

: 4

**Revision Information**

: (M)SDS sections updated:  
 12. ECOLOGICAL INFORMATION.

**END OF DOCUMENT**