



**RADCOLUBE® 9000 LUBRICATING OIL
MATERIAL SAFETY DATA SHEET**

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name

RADCOLUBE® 9000, LUBRICATING OIL, SHIPBOARD INTERNAL COMBUSTION ENGINE, HIGH OUTPUT DIESEL

Meets Military Specification MIL-PRF-9000J(SH)

Qualification# SER 05S/2011-097 Dated: 28-April-2011

NSNs: 9150-00-181-8229, 9150-00-181-8097

Company Identification

Radco Industries Inc.

PO BOX 305

LaFox, IL 60147

ISO 9001:2000 Certification Number: C2009-00209

Customer information number: 1-630-232-7966

Shipping emergency or off hour rush orders number: 1-630-336-6728

EMERGENCY TELEPHONE NUMBER

Advisory Office in case of poisoning:

Chemtrec (North America): 1-800-424-9300

Chemtrec al (International): 1-703-527-3887

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	% Content	CAS
Mixture		Not Applicable for Mixtures

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview

Potential Health Effects

Eye

Not expected to cause eye irritation based on data from components or similar materials.

Ingestion

DO NOT INDUCE VOMITING! Seek immediate medical attention.

Inhalation

If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and upper respiratory tract based on data from components or similar materials.

Skin Contact

Not expected to be a primary skin irritant. Prolonged or repeated skin contact may cause dermatitis.

**SECTION 3. HAZARDS IDENTIFICATION continued****HMIS**

Health: 1	Fire: 1	Reactivity: 0
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NFPA Codes

Health: 0	Fire: 1	Reactivity: 0
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SECTION 4. FIRST AID MEASURES**Eyes**

Flush with water at least 30 minutes. Get medical attention if eye irritation develops or persists.

Ingestion

If swallowed, drink plenty of water, DO NOT induce vomiting. Immediately call a doctor.

Inhalation

No data available to indicate product or components may be a toxic inhalation hazard

Skin

Wash exposed skin with soap and water.

SECTION 5. FIRE FIGHTING MEASURES**Suitable Extinguishing Media**

Agents approved for Class B hazards:

- Dry chemical
- Carbon dioxide
- Halogenated agents
- Foam
- Steam
- Water fog

Fire Fighting Equipment

Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

Unusual Fire and Explosion Hazards

None Identified.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Action to take for spills/leaks**

Prevent spreading by diking, ditching, or absorbing on inert materials. Keep out of sewers and waterways.

SECTION 7. HANDLING AND STORAGE**Handling**

Keep containers closed when not in use. Wash thoroughly after handling. Launder contaminated clothing before reuse.

Storage

Store at temperatures between 15°C and 45°C.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure guidelines****Component****CAS#****Exposure Limits**

Mixture

None established

None established

Eye protection

Safety glasses, chemical goggles, or face shields recommended to prevent contact.

Skin protection

Wear clothing and gloves that cannot be penetrated by chemicals or oil.

Ventilation

Use with adequate ventilation. Avoid breathing vapor. If heated and ventilation is inadequate, use NIOSH certified respirator, which will protect against organic vapor.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Bright and clear liquid.
Odor:	Mild
pH:	Not determined
Pour point:	-21 °C
Flash point (COC):	≥ 225°C
Fire point (COC):	≥ 246°C
Flammability Classification:	Not flammable
Autoignition temperature:	Not determined.
Explosion Data:	Material does not have explosive properties
Specific gravity at 15.6°C (60°F):	0.92
Viscosity at 100°C (212°F):	15.4 cSt

SECTION 10. STABILITY AND REACTIVITY**Conditions to avoid**

Not determined.

Dangerous reactions

No dangerous reactions known.

Hazardous polymerization

Will not occur

**SECTION 10. STABILITY AND REACTIVITY continued****Hazardous decomposition products**

Incomplete burning can produce carbon monoxide and/or carbon dioxide and other harmful products.

Materials to avoid

Not determined.

Stability

Stable

SECTION 11. TOXICOLOGICAL INFORMATION**Acute Toxicity****Dermal LD50**

> 2000 mg/Kg in rabbits. Based on data from components or similar materials.

Eye

Not expected to cause eye irritation.

Inhalation LD50

Testing not conducted. See other Toxicity Data.

Oral LD50

> 10,000 mg/Kg in rabbits. Based on data from components or similar materials.

Skin irritation

Testing not conducted. See other Toxicity Data.

Sensitization

Testing not conducted. See other Toxicity Data.

SECTION 12. ECOLOGICAL INFORMATION**Aquatic toxicity**

Freshwater Fish Toxicity:	The acute LC50 is 100 - 1000 mg/L based on component data.
Freshwater Invertebrates Toxicity:	The acute EC50 is 100 - 1000 mg/L based on component data.
Algal Inhibition:	Not determined.
Saltwater Fish Toxicity:	Not determined.
Saltwater Invertebrates Toxicity:	Not determined.
Bacteria Toxicity:	The acute EC50 is 100 - 1000 ppm based on component data.
Miscellaneous Toxicity:	Not determined.

SECTION 13. DISPOSAL INFORMATION

Disposal must be in accordance with applicable federal, state, or local regulations.

Do not allow product to reach ground water, water course, or sewage systems.

RCRA

This unused material, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations; however, it could be considered hazardous if it meets criteria for being toxic, corrosive, ignitable, or reactive according to U.S. EPA definitions (40 CFR Subpart C). This material could also become hazardous waste if it is mixed with or comes into contact with a listed hazardous waste. If it is a hazardous waste, regulations in 40 CFR 262-266, 268, 270, and 279 may apply.



SECTION 14. TRANSPORT INFORMATION

U.S. Dept. of Transportation Shipping Name

Not regulated.

Canadian Transportation of Dangerous Goods Shipping Name

All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.

European Rail/Road (ADR/RID) Shipping Name

All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC

Air (ICAO/IATA) Shipping Name

Not regulated.

Sea (IMO/IMDG)

Not regulated.

SECTION 15. REGULATORY INFORMATION

United States Regulatory Information

California (Proposition 65)

This product contains the following chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components: < 0.01 ppm Benzene, CAS no. 71-43-2 < 0.05 ppm cadmium < 0.05 ppm lead < 0.05 ppm arsenic 0.003% Toluene, CAS no. 108-88-3

CERCLA Reportable Quantity

This product is not reportable under 40 CFR Part 302.4.

Environmental Protection Agency

None of the ingredients are listed

National Toxicology Program (NTP)

None of the ingredients are listed.

OSHA Hazard Communication Standard

Not hazardous per 29 CFR 1910.1200(d).

SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355)

This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370)

Hazardous categories for this product are: Acute=no; Chronic=no; Fire=no; Pressure=no; Reactive=no.

SARA Title III Section 313 (40 CFR Part 372)

This product is not regulated under Section 313 of SARA and 40 CFR Part 372.

U.S. Inventory (TSCA)

Listed on inventory.

International Regulatory Information

Australia Inventory (AICS)

Listed on inventory.

**SECTION 15. REGULATORY INFORMATION continued****Canada Inventory (DSL)**

All of the ingredients are listed.

Canada (WHMIS)

Not a controlled Product under Canada's Workplace Hazardous Material Information System.

China (CICS)

None of the ingredients are listed.

EC Inventory (EINECS/ELINCS)

In compliance.

International Agency for Research on Cancer (IARC)

None of the ingredients are listed.

Japan Inventory (MITI)

Listed on inventory.

Korea Inventory (ECL)

Listed on inventory.

Philippine Inventory (PICCS)

Not determined.

Harmful R-phrases

No data available.

S-phrases

Keep container in a well ventilated place.

After contact with skin, wash immediately with plenty of water.

Wear suitable protective clothing and gloves.

This material and its container must be disposed of as hazardous waste.

SECTION 16. OTHER INFORMATION

Product use: Fire Resistant Hydraulic Fluid

Legend

CAS	Chemical Abstract Service Number
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
OSHA	Occupational Safety and Health Administration
STP	Standard temperature and pressure

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