



RADCOLUBE[®] FR282HYDRAULIC FLUID MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name

RADCOLUBE[®] FR282 HYDRAULIC FLUID, FIRE RESISTANT

Meets Military Specification MIL-PRF-83282D

Qualification# **NAVAIR ltr Ser 434200A/10.0040 Date: 28 June 2010**

NSNs: 9150-00-149-7431, 9150-00-149-7432, 9150-01-256-6433, 9150-01-009-7709, 9150-00-180-6290

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
Polyalphaolefin basestock	50 – 75%	68037-01-4
Adipate ester	20 – 30%	1330-86-5
Proprietary Additive Package	0.05 – 2.5%	None

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview

Caution! Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation. Harmful if aspirated into the lungs.

Potential Health Effects**Eye**

No significant irritation expected.

Ingestion

Significant adverse health effects are not expected if small amounts (less than a mouthful) are swallowed.

Inhalation

Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

Skin Contact

No significant irritation expected.

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

Health: 1	Fire: 1	Reactivity: 0
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NFPA Codes

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

Immediately flush eyes with plenty of water for at least 15 minutes.

Ingestion

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

Inhalation

If adverse effects occur, remove to uncontaminated area.

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**

Do not breathe vapors. Avoid ingestion.

Storage

Store at temperatures between 10°C and 50°C.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure guidelines**

Component	CAS#	Exposure Limits
Polyalphaolefin basestock	68037-01-4	None established
Adipate ester	1330-86-5	None established
Proprietary Additive Package	None	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:	Liquid. Dyed Red.
Odor:	Odorless
pH:	Not determined
Boiling point:	Not determined
Flash point (COC):	>205°C
Fire point (COC):	>245°C
Flammability Classification:	Not flammable
Auto ignition temperature:	>345°C
Solubility in water:	Negligible, < 0.1%
Specific gravity at 15.6°C (60°F):	0.84 at 15.6 C
Viscosity at 100°C (212°F):	1.95 -2.25 cSt

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

Temperature sources which induce thermal decomposition.

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

Avoid contact with strong oxidizing agents.

Stability

Stable

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity

No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program, the U.S. Occupational Safety and Health Act, or the International Agency on Research on Cancer (IARC).

Dermal LD50

Testing not conducted. See other Toxicity Data

Eye

Testing not conducted. See other Toxicity Data

Inhalation LD50

Testing not conducted. See other Toxicity Data

Oral LD50

Testing not conducted. See other Toxicity Data

Skin irritation

Testing not conducted. See other Toxicity Data

Sensitization

Testing not conducted. See other Toxicity Data

SECTION 12. ECOLOGICAL INFORMATION

Aquatic toxicity

No data available

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

Not regulated.

European Rail/Road (ADR/RID) Shipping Name

Not regulated.

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 does not contain any of the substances known to the State of California to cause cancer, birth defects, or reproductive harm.

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)

D-2B: Material causing other toxic effects (TOXIC)

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.

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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