



RADCOLUBE® 17331

Safety Data Sheet

MIL-PRF-17331L Lubricating Oil, Steam Turbine and Gear, Moderate Service

Issue date: 4/1/2015

Revision date: 8/5/2025

Supersedes: 4/28/2025

Version: 13.0

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Identification

Trade name	RADCOLUBE® 17331
Radco Product Code:	17331 (15086-B)
Specification:	MIL-PRF-17331L Lubricating Oil, Steam Turbine and Gear, Moderate Service
Qualification Number (Date):	Ser 05S/2019-028 (22 February 2019) Ser 05S/2020-160 (4 May 2020)
Military Symbol:	2190 TEP
NATO Code:	O-250
National Stock Number(s) (NSN):	9150-01-368-7076 (Oblong Gallon) 9150-01-370-2583 (5 Gallon Pail) 9150-01-368-7075 (55 Gallon Drum) 9150-01-372-6915 (Bulk Transport)

1.2. Recommended use and restrictions on use

Use of the substance/mixture:	Moderate service steam turbine and gear lubricating oil for use in main and auxiliary turbines and gears, air compressors, and certain hydraulic equipment, as well as for general mechanical lubrication.
Use of the substance/mixture:	Lubricant

1.3. Supplier

Manufacturer

Radco Industries L.L.C.
CAGE Code 6ZS16
700 Kingsland Drive
Batavia, Illinois 60510
United States
T (630) 232-7966
www.radcoind.com

1.4. Emergency telephone number

Emergency number:	For Chemical Emergency Call CHEMTREC 24hr/day 7days/week Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements**GHS US labeling**

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Name	CAS-No.	%	GHS US classification
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	≥ 75	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures**4.1. Description of first aid measures**

First-aid measures general:	If you feel unwell, seek medical advice.
First-aid measures after inhalation:	Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact:	Wash skin with plenty of water.
First-aid measures after eye contact:	Rinse eyes with water as a precaution.
First-aid measures after ingestion:	Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation:	None under normal conditions.
Symptoms/effects after skin contact:	None under normal conditions.
Symptoms/effects after eye contact:	None under normal conditions.
Symptoms/effects after ingestion:	None under normal conditions.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures**5.1. Suitable (and unsuitable) extinguishing media**

Suitable extinguishing media:	Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media:	Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard:	No fire hazard.
Explosion hazard:	No direct explosion hazard.

Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions:	Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures:	Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
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6.1.1. For non-emergency personnel

Protective equipment:	Wear recommended personal protective equipment.
Emergency procedures:	Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures:	Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment:	Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up:	Take up liquid spill into absorbent material.
Other information:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed:	Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling:	Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures:	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures:	Keep in a cool, well-ventilated place away from heat.
Storage conditions:	Keep cool. Protect from sunlight.

RADCOLUBE® 17331

MIL-PRF-17331L Lubricating Oil, Steam Turbine and Gear, Moderate Service

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Incompatible products:	Strong acids. Strong bases.
Information on mixed storage:	KEEP SUBSTANCE AWAY FROM: Strong acids. Strong bases.
Packaging materials:	Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RADCOLUBE® 17331	
No additional information available	
USA - OSHA - Occupational Exposure Limits	
Local name	Oil mist, mineral
OSHA PEL TWA	5 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
No additional information available	
USA - ACGIH - Occupational Exposure Limits	
ACGIH® TLV® TWA	5 mg/m ³ 8 Hours. Form: inhalable
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	5 mg/m ³ 8 Hours
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	5 mg/m ³ 15 Hours. Form: mist
NIOSH REL STEL	10 mg/m ³ 15 minutes. Form: mist

8.2. Appropriate engineering controls

Appropriate engineering controls:	Ensure good ventilation of the work station.
Environmental exposure controls:	Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing

RADCOLUBE® 17331

MIL-PRF-17331L Lubricating Oil, Steam Turbine and Gear, Moderate Service

Safety Data Sheet

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Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	Liquid.
Color:	Light yellow to brown
Odor:	Petroleum-like odor
Odor threshold:	No data available
pH:	No data available
Melting point:	Not applicable
Freezing point:	≤ -6 °C (ASTM D97 Pour point)
Boiling point:	No data available
Flash point:	243 – 258 °C (ASTM D92)
Relative evaporation rate (butyl acetate=1):	No data available
Flammability:	Not applicable.
Vapor pressure:	< 0.01 mm Hg at 20°C (68°F)
Relative vapor density at 20°C:	No data available
Relative density:	0.8676 – 0.8789 at 15.6°C (Water = 1)
Density:	7.23 – 7.32 lb/gal at 15.6°C (Water = 1)
Solubility:	Material insoluble in water.
Partition coefficient n-octanol/water (Log Pow):	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	77 – 81 mm ² /s at 40°C (104°F)
Viscosity, dynamic:	No data available
Explosion limits:	No data available
Explosive properties:	No data available

RADCOLUBE® 17331**MIL-PRF-17331L Lubricating Oil, Steam Turbine and Gear, Moderate Service**

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Oxidizing properties:	No data available
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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Acute toxicity (oral):	Not classified
Acute toxicity (dermal):	Not classified
Acute toxicity (inhalation):	Not classified
Skin corrosion/irritation:	Not classified
Carcinogenicity:	Not classified
Aspiration hazard:	Not classified
Viscosity, kinematic:	77 – 81 mm ² /s at 40°C (104°F)
Symptoms/effects after inhalation:	None under normal conditions.
Symptoms/effects after skin contact:	None under normal conditions.
Symptoms/effects after eye contact:	None under normal conditions.
Symptoms/effects after ingestion:	None under normal conditions.
STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified
Reproductive toxicity:	Not classified

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

LD50 oral rat:	> 5000 mg/kg body weight (OECD 401 method) (OECD 420 method)
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Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Serious eye damage/irritation:	Not classified
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Respiratory or skin sensitization:	Not classified
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Germ cell mutagenicity:	Not classified
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LOAEL (oral, rat, 90 days):	125 mg/kg body weight (OECD 408 method)
NOAEC (inhalation, rat, dust/mist/fume, 90 days):	> 0.98 mg/l Air (OECD 412 method)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general:

The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation:

Disposal must be done according to official regulations.

Waste treatment methods:

Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations:

Disposal must be done according to official regulations.

Product/Packaging disposal recommendations:

Disposal must be done according to official regulations.

Additional information:

Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA / ICAO / ADN / RID / ADG

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT): Not applicable

Proper Shipping Name (TDG): Not applicable

Proper Shipping Name (IMDG): Not applicable

Proper Shipping Name (IATA): Not applicable

14.3. Transport hazard class(es)**DOT**

Transport hazard class(es) (DOT): Not applicable

TDG

Transport hazard class(es) (TDG): Not applicable

IMDG

Transport hazard class(es) (IMDG): Not applicable

IATA

Transport hazard class(es) (IATA): Not applicable

14.4. Packing group

Packing group (DOT): Not applicable

Packing group (TDG): Not applicable

Packing group (IMDG): Not applicable

Packing group (IATA): Not applicable

14.5. Environmental hazards

Other information: No supplementary information available.

14.6. Special precautions for user**DOT**

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

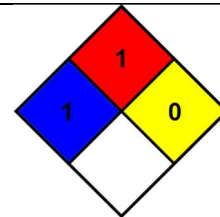
Revision date: 08/05/2025

NFPA health 1 - Materials that, under emergency conditions, can cause significant irritation.

hazard

NFPA fire hazard 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

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Safety Data Sheet

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Physical	0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
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This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any particular process or for any particular purpose. Such information stated is to the best of Radco’s knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made to its accuracy, reliability, or completeness, purchasers, users and distributors are not relying on any promise, representation, or recommendation made by Radco, and Radco does not accept liability for any loss or damage that may occur from the use of this information. Final determination of suitability of any material is the sole responsibility of the user. All material should be used with caution to guard against unknown hazards. Although certain hazards are described herein, Radco does not guarantee that these are the only hazards that exist.