



RADCOLUBE® 6086L

Safety Data Sheet

MIL-PRF-6086F(1) GRADE L Lubricating Oil, Gear, Petroleum Base

Issue date: 12/6/2017

Revision date: 2/24/2025

Supersedes: 4/4/2023

Version: 7.0

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

SECTION 1: Identification

1.1. Identification

Trade name	RADCOLUBE® 6086L
Specification:	MIL-PRF-6086F(1) Grade L Lubricating Oil, Gear, Petroleum Base
Qualification Number (Date):	AFPET/PTPT 18-004 (14 May 2018) AFPET/PTPS 20-018 (22 October 2020) AFPET/PTPS 20-019 (22 October 2020) AFPET/PTPS 22-011 (29 September 2022)
Military Symbol:	OGL
NATO Code:	O-153
National Stock Number(s) (NSN):	9150-00-265-9417 Oblong Gallon 9150-00-223-4116 5 Gallon Pail

1.2. Recommended use and restrictions on use

Use of the substance/mixture:	Is intended for use in light-to-moderate-loaded gear trains or gear boxes that operate in low-to-medium-speed ranges down to -40°C. Typically used in the primary gearbox of heavy-lift helicopters operating in colder climates.
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1.3. Supplier

Radco Industries Inc.
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

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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	Product identifier	%	GHS US classification
Distillates (petroleum), hydrotreated heavy paraffinic	CAS-No.: 64742-54-7	60 – 90	Not classified
Distillates (petroleum), hydrotreated light naphthenic	CAS-No.: 64742-53-6	5 – 20	Asp. Tox. 1, H304
Paraffin oils (petroleum), catalytic dewaxed light	CAS-No.: 64742-71-8	1 – 15	Asp. Tox. 1, H304

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 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)

No additional information available

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.

5.2. Specific hazards arising from the chemical

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

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5.3. Special protective equipment and precautions for fire-fighters

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

6.1.1. For non-emergency personnel

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".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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

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

Storage conditions: Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RADCOLUBE® 6086L	
No additional information available	
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
No additional information available	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	5 mg/m ³ 8 Hours Form: inhalable

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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 10 Hours. Form: mist
NIOSH REL STEL	10 mg/m ³ 15 minutes. Form: mist
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
No additional information available	
Paraffin oils (petroleum), catalytic dewaxed light (64742-71-8)	
No additional information available	
USA - ACGIH - Occupational Exposure Limits	
Local name	Mineral oil, excluding metal working fluids Pure, highly and severely refined
ACGIH OEL TWA	5 mg/m ³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024

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

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

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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:	Not applicable
Melting point:	Not applicable
Freezing point:	≤ -40 °C (ASTM D97 Pour point)
Boiling point:	No data available
Flash point:	> 137.8 °C (ASTM D92 Flash point)
Relative evaporation rate (butyl acetate=1):	No data available
Flammability:	Not applicable.
Vapor pressure:	< 0.1 hPa at 20°C
Relative vapor density at 20°C:	No data available
Relative density:	0.86 – 0.88 at 15.6°C (Water = 1)
Density:	7.1 – 7.3 lb/gal at 15.6°C
Solubility:	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:	23 – 34 mm ² /s at 40°C
Viscosity, dynamic:	No data available
Explosion limits:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

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.

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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 pH: Not applicable
Carcinogenicity:	Not classified
Aspiration hazard:	Not classified
Viscosity, kinematic:	23 – 34 mm ² /s at 40°C
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)

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)

LD50 oral rat: > 5000 mg/kg body weight (OECD 401 method) (OECD 420 method)

Paraffin oils (petroleum), catalytic dewaxed light (64742-71-8)

LD50 oral rat: > 5000 mg/kg body weight (OECD 401 method) and (OECD 420 method)

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

Serious eye damage/irritation: Not classified

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)

Serious eye damage/irritation: Not classified

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Paraffin oils (petroleum), catalytic dewaxed light (64742-71-8)	
Serious eye damage/irritation:	Not classified
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Respiratory or skin sensitization:	Not classified
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
Respiratory or skin sensitization:	Not classified
Paraffin oils (petroleum), catalytic dewaxed light (64742-71-8)	
Respiratory or skin sensitization:	Not classified
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Germ cell mutagenicity:	Not classified
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
Germ cell mutagenicity:	Not classified
Paraffin oils (petroleum), catalytic dewaxed light (64742-71-8)	
Germ cell mutagenicity:	Not classified
Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LOAEL (oral,rat,90 days):	125 mg/kg body weight male (OECD 408 method)
Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
LOAEL (oral,rat,90 days):	125 mg/kg body weight male (OECD 408 method)
NOAEL (dermal,rat/rabbit,90 days):	1000 mg/kg body weight (OECD 410 method)
Paraffin oils (petroleum), catalytic dewaxed light (64742-71-8)	
LOAEL (oral,rat,90 days):	125 mg/kg body weight male (OECD 408 method)
NOAEL (dermal,rat/rabbit,90 days):	1000 mg/kg body weight (OECD 410 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

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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

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

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

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not applicable	Not applicable	Not applicable	Not applicable
Transport document description			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

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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)

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)

Listed on the Canadian DSL (Domestic Substances List)

Paraffin oils (petroleum), catalytic dewaxed light (64742-71-8)

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)

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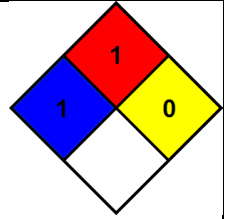
according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Full text of hazard classes and H-statements	
H304	May be fatal if swallowed and enters airways

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

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)
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.

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.