



RADCOLUBE® LO7870

Safety Data Sheet

MIL-PRF-7870E Lubricating Oil: General Purpose, Low Temperature

Issue date: 2/2/2010

Revision date: 7/21/2025

Supersedes: 4/28/2025

Version: 7.0

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

SECTION 1: Identification

1.1. Identification

Trade name	RADCOLUBE® LO7870
Radco Product Code:	7870 (15163-A)
Specification:	MIL-PRF-7870E Lubricating Oil: General Purpose, Low Temperature
Qualification Number (Date):	AFPET/PTPS 25-006 (21 July 2025)
NATO Code:	O-142
National Stock Number(s) (NSN):	9150-00-263-3490 Quart 9150-00-273-2397 Oblong Gallon 9150-00-281-9438 55 Gallon Drum

1.2. Recommended use and restrictions on use

Use of the substance/mixture:	One grade of general purpose, low temperature lubricating oil. This lubricating oil is identified by NATO Code Number O-142 (see MIL-PRF-7870E paragraph 6.7).
-------------------------------	--

1.3. Supplier

Manufacturer	Manufacturer
Radco Industries L.L.C.	Radco Industries L.L.C.
CAGE Code 6ZS16	CAGE Code 1RVC4
700 Kingsland Drive	39W930 Midan Drive
Batavia, Illinois 60510	LaFox, Illinois 60147
United States	United States
T (630) 232-7966	T (630) 232-7966
www.radcoind.com	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)
-------------------	--

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Reproductive toxicity, Category 2	H361	Suspected of damaging fertility.
Full text of H statements : see section 16		

2.2. GHS Label elements, including precautionary statements

RADCOLUBE® LO7870

MIL-PRF-7870E Lubricating Oil: General Purpose, Low Temperature

Safety Data Sheet

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

GHS US labeling

Hazard pictograms (GHS US):



Signal word (GHS US):

Warning

Hazard statements (GHS US):

H361 - Suspected of damaging fertility.

Precautionary statements (GHS US):

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear eye protection, protective gloves, protective clothing.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P405 - Store locked up.

P501 - Dispose of contents and container to an approved waste disposal plant.

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
1-Dodecene, polymer with 1-decene, hydrogenated	151006-60-9	0 – 95	Asp. Tox. 1, H304
Napthalenesulfonic acid, dinonyl-, barium salt (2:1)	25619-56-1	< 5	Aquatic Chronic 2, H411
Alkylated amine*	Trade Secret	< 1	Repr. 2, H361 STOT RE 2, H373

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

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

SECTION 4: First-aid measures

4.1. Description of first aid measures

No additional information available

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

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

No additional information available

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

No additional information available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

No additional information available

7.2. Conditions for safe storage, including any incompatibilities

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RADCOLUBE® LO7870
No additional information available

Alkylated amine
No additional information available

1-Dodecene, polymer with 1-decene, hydrogenated (151006-60-9)

No additional information available

Napthalenesulfonic acid, dinonyl-, barium salt (2:1) (25619-56-1)

No additional information available

USA - OSHA - Occupational Exposure Limits

Local name	Barium, soluble compounds (as Ba)
------------	-----------------------------------

OSHA PEL TWA	0.5 mg/m ³
--------------	-----------------------

Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
--------------------------------	--------------------------

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

No additional information available

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Appearance:	Liquid.
Color:	Light yellow
Odor:	Characteristic odour
Odor threshold:	No data available
pH:	Not applicable
Melting point:	No data available
Freezing point:	< -69 °C
Boiling point:	No data available
Flash point:	221 °C (Cleveland Open Cup Method)
Relative evaporation rate (butyl acetate=1):	No data available
Flammability:	No data available
Vapor pressure:	No data available
Relative vapor density at 20°C:	No data available
Relative density:	0.85 at 15.6°C (Water = 1)
Solubility:	Insoluble in water.
Partition coefficient n-octanol/water (Log Pow):	No data available

RADCOLUBE® LO7870

MIL-PRF-7870E Lubricating Oil: General Purpose, Low Temperature

Safety Data Sheet

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

Auto-ignition temperature:	370 °C
Decomposition temperature:	No data available
Viscosity, kinematic:	≥ 19 mm ² /s at 38°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

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

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:	≥ 19 mm ² /s at 38°C
STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified

RADCOLUBE® LO7870**MIL-PRF-7870E Lubricating Oil: General Purpose, Low Temperature**

Safety Data Sheet

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

Reproductive toxicity:	Suspected of damaging fertility.
------------------------	----------------------------------

Alkylated amine

LD50 oral rat:	> 5000 mg/kg body weight (OECD 401 method)
LD50 dermal rat:	> 2000 mg/kg body weight (OECD 402 method)

1-Dodecene, polymer with 1-decene, hydrogenated (151006-60-9)

LD50 dermal rat:	> 2000 mg/kg body weight (OECD 402 method)
LC50 Inhalation - Rat:	> 5 mg/l (OECD 403 method)

Napthalenesulfonic acid, dinonyl-, barium salt (2:1) (25619-56-1)

LD50 dermal rabbit:	3000 mg/kg body weight
ATE US (dermal):	3000 mg/kg body weight

Alkylated amine

Serious eye damage/irritation:	Not classified
--------------------------------	----------------

1-Dodecene, polymer with 1-decene, hydrogenated (151006-60-9)

Serious eye damage/irritation:	Not classified
--------------------------------	----------------

Napthalenesulfonic acid, dinonyl-, barium salt (2:1) (25619-56-1)

Serious eye damage/irritation:	Not classified
--------------------------------	----------------

Alkylated amine

Respiratory or skin sensitization:	Not classified
------------------------------------	----------------

1-Dodecene, polymer with 1-decene, hydrogenated (151006-60-9)

Respiratory or skin sensitization:	Not classified
------------------------------------	----------------

Napthalenesulfonic acid, dinonyl-, barium salt (2:1) (25619-56-1)

Respiratory or skin sensitization:	Not classified
------------------------------------	----------------

Alkylated amine

Germ cell mutagenicity:	Not classified
-------------------------	----------------

1-Dodecene, polymer with 1-decene, hydrogenated (151006-60-9)

Germ cell mutagenicity:	Not classified
-------------------------	----------------

Napthalenesulfonic acid, dinonyl-, barium salt (2:1) (25619-56-1)

Germ cell mutagenicity:	Not classified
-------------------------	----------------

Alkylated amine

NOAEL (animal/male, F0/P):	18 – 54 mg/kg body weight (OECD 443 method)
----------------------------	---

Alkylated amine	
NOAEL (animal/female, F0/P):	18 – 54 mg/kg body weight (OECD 443 method)
NOAEL (animal/male, F1):	18 – 167 mg/kg body weight (OECD 443 method)
NOAEL (animal/female, F1):	18 – 167 mg/kg body weight (OECD 443 method)
Additional data:	Reproduction NOAEL, oral, rat: 225 mg/kg bw/day (28 days, (OECD 422 method)), Parental NOAEL, oral, rat: 25 mg/kg bw/day (28 days, (OECD 422 method))

Alkylated amine	
NOAEL (oral, rat, 90 days):	25 mg/kg body weight (OECD 422 method)
STOT-repeated exposure:	May cause damage to organs (liver) through prolonged or repeated exposure (oral).

SECTION 12: Ecological information

12.1. Toxicity

Alkylated amine	
LC50 - Fish [1]:	100 mg/l Brachydanio rerio (zebra-fish)
EC50 - Crustacea [1]:	51 mg/l Daphnia magna (Water flea)

Naphthalenesulfonic acid, dinonyl-, barium salt (2:1) (25619-56-1)	
LC50 - Fish [1]:	0.28 mg/l 96 Hours
EC50 - Crustacea [1]:	78 mg/l EC50 48h - Daphnia magna [mg/l]
NOEC chronic fish:	0.27 mg/l 48 Hours

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Naphthalenesulfonic acid, dinonyl-, barium salt (2:1) (25619-56-1)	
Partition coefficient n-octanol/water (Log Kow):	6.7 at 20°C

12.4. Mobility in soil

Naphthalenesulfonic acid, dinonyl-, barium salt (2:1) (25619-56-1)	
Mobility in soil:	5.24 QSAR

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations**13.1. Disposal methods**

No additional information available

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

RADCOLUBE® LO7870

MIL-PRF-7870E Lubricating Oil: General Purpose, Low Temperature

Safety Data Sheet

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

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

Alkylated amine

Listed on the Canadian DSL (Domestic Substances List)

1-Dodecene, polymer with 1-decene, hydrogenated (151006-60-9)

Listed on the Canadian DSL (Domestic Substances List)

Napthalenesulfonic acid, dinonyl-, barium salt (2:1) (25619-56-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Alkylated amine

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Napthalenesulfonic acid, dinonyl-, barium salt (2:1) (25619-56-1)

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

RADCOLUBE® LO7870
MIL-PRF-7870E Lubricating Oil: General Purpose, Low Temperature

Safety Data Sheet

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

SECTION 16: Other information

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

Revision date: 07/21/2025

Full text of hazard classes and H-statements	
H304	May be fatal if swallowed and enters airways
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects

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.