RADCOLUBE® 6081

Safety Data Sheet

MIL-PRF-6081E W/AMENDEMENT 1 GRADE 1010 Lubricating Oil, Jet Engine

Issue date: 11/27/2023 Revision date: 8/15/2025 Supersedes: 8/8/2025 Version: 7.0

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

SECTION 1: Identification

1.1. Identification

Trade name	RADCOLUBE® 6081
Radco Product Code:	6081 (20134-C)
Specification:	MIL-PRF-6081E w/Amendement 1 Grade 1010 Lubricating Oil, Jet Engine
Qualification Number (Date):	95B (14 July 2014) 102B (13 May 2020) 103B (13 May 2020)
NATO Code:	O-133
National Stock Number(s) (NSN):	9150-00-273-2388 Quart 9150-00-273-8807 Gallon 9150-00-231-6676 55 Gallon Drum 9150-00-985-7031 Bulk

1.2. Recommended use and restrictions on use

Use of the substance/mixture:	This product is a petroleum-based, jet engine lubricating oil. The 1010 Grade is intended for use in specific models of military jet engines.

1.3. Supplier

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)

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.
Specific target organ toxicity — Repeated exposure, Category 2	H373	May cause damage to organs (liver) through prolonged or repeated exposure (oral).
Aspiration hazard, Category 1	H304	May be fatal if swallowed and enters airways.

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US):

Signal word (GHS US): Danger

Hazard statements (GHS US):
H304 - May be fatal if swallowed and enters airways
H361 - Suspected of damaging fertility.
H373 - May cause damage to organs (liver) through prolonged or repeated exposure (oral)

Precautionary statements (GHS US):
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe fume, mist, spray, vapors.
P280 - Wear protective clothing, eye and face protection.
P301+P310 - If swallowed: Immediately call a POISON CENTER, a doctor.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P331 - Do NOT induce vomiting.
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
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	> 50	Asp. Tox. 1, H304
Synthetic Hydrocarbon*	Trade Secret	10 – 50	Asp. Tox. 1, H304
Alkylated amine*	Trade Secret	< 5	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

First-aid measures general: Call a physician immediately.

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: Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after inhalation: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact: None under normal conditions.
Symptoms/effects after eye contact: None under normal conditions.
Symptoms/effects after ingestion: Risk of lung edema.

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.

6.1.1. For non-emergency personnel

Protective equipment: Wear recommended personal protective equipment.

Emergency procedures: Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapors/spray.

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. Notify authorities if product enters sewers or public waters.
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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray.
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:	Store locked up.
Packaging materials:	Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RADCOLUBE® 6081	
No additional information available	
USA - OSHA - Occupational Exposure Limits	
Local name	Oil mist, mineral
OSHA PEL TWA	5 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)
No additional information available

Synthetic Hydrocarbon
No additional information available

Alkylated amine
No additional information available

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

Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

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
Odor:	Petroleum-like odor
Odor threshold:	No data available
pH:	No data available
Melting point:	Not applicable
Freezing point:	≤ -57 °C Pour point
Boiling point:	No data available

Flash point:	> 132 °C Cleveland Open Cup Method
Relative evaporation rate (butyl acetate=1):	No data available
Flammability:	Not applicable.
Vapor pressure:	No data available
Relative vapor density at 20°C:	No data available
Relative density:	0.8581 at 15.6°C (Water = 1)
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:	10 – 12 mm^2/s at 40°C (104°F)
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.

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:	May be fatal if swallowed and enters airways.
Viscosity, kinematic:	10 – 12 mm^2/s at 40°C (104°F)
Symptoms/effects after inhalation:	Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact:	None under normal conditions.
Symptoms/effects after eye contact:	None under normal conditions.
Symptoms/effects after ingestion:	Risk of lung edema.
STOT-single exposure:	Not classified
STOT-repeated exposure:	May cause damage to organs (liver) through prolonged or repeated exposure (oral).
Reproductive toxicity:	Suspected of damaging fertility.

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
LD50 oral rat:	> 5000 mg/kg body weight (OECD 401 method) (OECD 420 method)

Synthetic Hydrocarbon	
LD50 dermal rat:	> 2000 mg/kg body weight (OECD 402 method)
LC50 Inhalation - Rat:	> 5.2 mg/l/4h (OECD 403 method)

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

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
Serious eye damage/irritation:	Not classified

Synthetic Hydrocarbon	
Serious eye damage/irritation:	Not classified

Alkylated amine	
Serious eye damage/irritation:	Not classified

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
Respiratory or skin sensitization:	Not classified

Synthetic Hydrocarbon	
Respiratory or skin sensitization:	Not classified

Alkylated amine	
Respiratory or skin sensitization:	Not classified

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
Germ cell mutagenicity:	Not classified

Synthetic Hydrocarbon	
Germ cell mutagenicity:	Not classified

Alkylated amine	
Germ cell mutagenicity:	Not classified

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

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)

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

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

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

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 light naphthenic (64742-53-6)
Listed on the Canadian DSL (Domestic Substances List)

Synthetic Hydrocarbon
Listed on the Canadian DSL (Domestic Substances List)

Alkylated amine
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Synthetic Hydrocarbon
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Alkylated amine
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

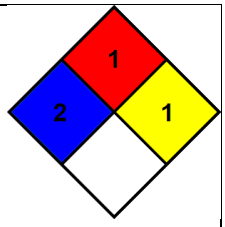
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)
Revision date: 08/15/2025

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

NFPA health hazard	2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard	1 - Materials that must be preheated before ignition can occur.
NFPA reactivity	1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



Hazard Rating	
Health	2 Moderate Hazard - Temporary or minor injury may occur
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	1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

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