



# RADCOLUBE® 6081

## Safety Data Sheet

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

Issue date: 11/27/2023

Revision date: 1/17/2024

Supersedes: 11/27/2023

Version: 1.1

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## SECTION 1: Identification

### 1.1. Identification

Trade name	RADCOLUBE® 6081		
Specification:	MIL-PRF-6081E w/Amendment 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 Inc.  
CAGE Code 6ZS16  
700 Kingsland Drive  
Batavia, Illinois 60510  
United States  
T (630) 232-7966  
[www.radcoind.com](http://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

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

Precautionary statements (GHS US):

P301+P310 - If swallowed: Immediately call a POISON CENTER, a doctor.

P331 - Do NOT induce vomiting.

P405 - Store locked up.

P501 - Dispose of contents/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	Product identifier	%	GHS US classification
Distillates (petroleum), hydrotreated light naphthenic (Base Oil)	CAS-No.: 64742-53-6	25 – 60	Asp. Tox. 1, H304
Paraffin oils (petroleum), catalytic dewaxed light* (Base Oil)	CAS-No.: Trade Secret	10 – 40	Asp. Tox. 1, H304
1-Decene, homopolymer, hydrogenated (Base Stock)	CAS-No.: 68037-01-4	15 – 30	Asp. Tox. 1, H304
Trade Secret 1*	CAS-No.: Trade Secret	Trade Secret	Aquatic Acute 3, H402

\*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 ingestion:

Risk of lung edema.

### **4.3. Immediate medical attention and special treatment, if necessary**

Treat symptomatically.

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## **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.

### **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.

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## **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.

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## **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 locked up. Store in a well-ventilated place. Keep cool.

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**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

<b>RADCOLUBE® 6081</b>	
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Oil mist, mineral
OSHA PEL TWA	5 mg/m <sup>3</sup>
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
<b>Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)</b>	
No additional information available	
<b>Paraffin oils (petroleum), catalytic dewaxed light</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	5 mg/m <sup>3</sup> (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2023
<b>1-Decene, homopolymer, hydrogenated (68037-01-4)</b>	
No additional information available	
<b>Trade Secret 1</b>	
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**

<b>Hand protection:</b>
Protective gloves
<b>Eye protection:</b>
Safety glasses
<b>Skin and body protection:</b>
Wear suitable protective clothing
<b>Respiratory protection:</b>
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
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 <sup>2</sup> /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 <sup>2</sup> /s at 40°C (104°F)
Symptoms/effects after ingestion:	Risk of lung edema.
STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified
Reproductive toxicity:	Not classified

**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**

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

**1-Decene, homopolymer, hydrogenated (68037-01-4)**

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

LC50 Inhalation - Rat: > 5.2 mg/l/4h (OECD 403 method)

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<b>Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)</b>	
Serious eye damage/irritation:	Not classified
<b>Paraffin oils (petroleum), catalytic dewaxed light</b>	
Serious eye damage/irritation:	Not classified
<b>1-Decene, homopolymer, hydrogenated (68037-01-4)</b>	
Serious eye damage/irritation:	Not classified
<b>Trade Secret 1</b>	
Serious eye damage/irritation:	Not classified
<b>Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)</b>	
Respiratory or skin sensitization:	Not classified
<b>Paraffin oils (petroleum), catalytic dewaxed light</b>	
Respiratory or skin sensitization:	Not classified
<b>1-Decene, homopolymer, hydrogenated (68037-01-4)</b>	
Respiratory or skin sensitization:	Not classified
<b>Trade Secret 1</b>	
Respiratory or skin sensitization:	Not classified
<b>Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)</b>	
Germ cell mutagenicity:	Not classified
<b>Paraffin oils (petroleum), catalytic dewaxed light</b>	
Germ cell mutagenicity:	Not classified
<b>1-Decene, homopolymer, hydrogenated (68037-01-4)</b>	
Germ cell mutagenicity:	Not classified
<b>Trade Secret 1</b>	
Germ cell mutagenicity:	Not classified
<b>Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)</b>	
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)
<b>Paraffin oils (petroleum), catalytic dewaxed light</b>	
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)

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## **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

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## **SECTION 13: Disposal considerations**

### **13.1. Disposal methods**

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

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## **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

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### 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

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	Present	Active	
Paraffin oils (petroleum), catalytic dewaxed light		Present	Active	
1-Decene, homopolymer, hydrogenated	68037-01-4	Present	Active	XU
Trade Secret 1		Not present	-	

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**

<b>Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)</b>
Listed on the Canadian DSL (Domestic Substances List)

<b>Paraffin oils (petroleum), catalytic dewaxed light</b>
Listed on the Canadian DSL (Domestic Substances List)

<b>1-Decene, homopolymer, hydrogenated (68037-01-4)</b>
Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations**

No additional information available

**National regulations**

<b>1-Decene, homopolymer, hydrogenated (68037-01-4)</b>
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**

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Full text of H-phrases	
H304	May be fatal if swallowed and enters airways
H402	Harmful to aquatic life

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

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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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