RADCOLUBE® RHP5606

Safety Data Sheet

MIL-PRF-5606J Hydraulic Fluid, Petroleum Base; Aircraft, Missile and Ordinance

Issue date: 12/27/2013 Revision date: 7/11/2023 Supersedes: 6/2/2023 Version: 16.2

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

SECTION 1: Identification

1.1. Identification

Trade name	RADCOLUBE® RHP5606
Specification:	MIL-PRF-5606J Hydraulic Fluid, Petroleum Base; Aircraft, Missile and Ordinance
Qualification Number (Date):	AFPET/PTPS 20-005 (20 February 2020) AFPET/PTPS 20-006 (9 March 2020) AFPET/PTPS 23-002 (3 April 2023)
Military Symbol:	OHA
NATO Code:	H-515
National Stock Number(s) (NSN):	9150-00-252-6383 (Quart) 9150-00-223-4134 (Gallon) 9150-00-082-7524 (10 Gallon Drum) 9150-00-265-9408 (55 Gallon Drum)

1.2. Recommended use and restrictions on use

Use of the substance/mixture:	This product is a MIL-PRF-5606J petroleum base hydraulic fluid for use in the -54 °C to +135 °C temperature range (see MIL-PRF-5606J paragraph 6.1). This fluid is identified by military symbol OHA and NATO Code No. H-515.
Use of the substance/mixture:	Hydraulic fluids and additives
Recommended use:	Hydraulic fluids
Restrictions on use:	Hydraulic fluids

1.3. Supplier

Manufacturer	**Manufacturer**
Radco Industries Inc.	Radco Industries Inc.
CAGE Code 6ZS16	CAGE Code 1RVC4
700 Kingsland Drive	39W930 Midan Drive
Batavia, Illinois 60510	Elburn, 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

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	CAS-No.: 64742-53-6	25 – 50	Asp. Tox. 1, H304
Distillates (petroleum), hydrotreated middle	CAS-No.: 64742-46-7	25 – 50	Asp. Tox. 1, H304
Dec-1-ene, dimers, hydrogenated	CAS-No.: 68649-11-6	< 5	Acute Tox. 4 (Inhalation), H332 Asp. Tox. 1, H304
Proprietary Component A*	CAS-No.: Trade Secret	< 5	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.

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.

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 locked up. Store in a well-ventilated place. Keep cool.
Storage temperature: -57 – 49 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RADCOLUBE® RHP5606	
USA - OSHA - Occupational Exposure Limits	
Local name	Oil mist, mineral
OSHA PEL TWA [1]	5 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Mineral oil, excluding metal working fluids Pure, highly and severely refined
ACGIH OEL TWA	5 mg/m³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2023

Distillates (petroleum), hydrotreated middle (64742-46-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Mineral oil, excluding metal working fluids Pure, highly and severely refined
ACGIH OEL TWA	5 mg/m³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Petroleum distillates (Naphtha)(Rubber Solvent)
OSHA PEL TWA [1]	2000 mg/m³
OSHA PEL TWA [2]	500 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Dec-1-ene, dimers, hydrogenated (68649-11-6)
No additional information available

Proprietary Component A
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

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):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	Liquid.
Color:	red
Odor:	Petroleum-like odor
Odor threshold:	No data available
pH:	No data available
Melting point:	Not applicable
Freezing point:	≤ -69 (Pour point)
Boiling point:	No data available
Flash point:	85.5 °C ASTM D93 Closed cup
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:	≥ 0.874 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:	13.7 mm²/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:	13.7 mm²/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)

Distillates (petroleum), hydrotreated middle (64742-46-7)	
LD50 oral rat:	> 5000 mg/kg body weight (OECD 401 method)
LD50 dermal rabbit:	> 2000 mg/kg body weight (OECD 402 method)

Dec-1-ene, dimers, hydrogenated (68649-11-6)	
LD50 oral rat:	> 5000 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rat:	> 2000 mg/kg body weight (OECD 402 method)
ATE US (gases):	4500 ppmV/4h
ATE US (vapors):	11 mg/l/4h
ATE US (dust, mist):	1.5 mg/l/4h

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

Distillates (petroleum), hydrotreated middle (64742-46-7)	
Serious eye damage/irritation:	Not classified

Dec-1-ene, dimers, hydrogenated (68649-11-6)	
Serious eye damage/irritation:	Not classified

Proprietary Component A	
Serious eye damage/irritation:	Not classified

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

Distillates (petroleum), hydrotreated middle (64742-46-7)	
Respiratory or skin sensitization:	Not classified

Dec-1-ene, dimers, hydrogenated (68649-11-6)	
Respiratory or skin sensitization:	Not classified

Proprietary Component A	
Respiratory or skin sensitization:	Not classified

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

Distillates (petroleum), hydrotreated middle (64742-46-7)	
Germ cell mutagenicity:	Not classified

Dec-1-ene, dimers, hydrogenated (68649-11-6)	
Germ cell mutagenicity:	Not classified

Proprietary Component A	
Germ cell mutagenicity:	Not classified

Distillates (petroleum), hydrotreated middle (64742-46-7)	
NOAEL (animal/male, F0/P):	≥ 3000 mg/kg body weight

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)

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.

Distillates (petroleum), hydrotreated middle (64742-46-7)	
LC50 - Fish [1]:	1.2 mg/l Species: Oncorhynchus mykiss (Rainbow trout), 21 days
EC50 - Crustacea [1]:	2.9 mg/l Species: Daphnia magna (Water flea), 96 Hours

12.2. Persistence and degradability

Dec-1-ene, dimers, hydrogenated (68649-11-6)	
Persistence and degradability:	Biodegradability in soil: no data available. Biodegradability in water: no data available.

12.3. Bioaccumulative potential

Dec-1-ene, dimers, hydrogenated (68649-11-6)	
Bioaccumulative potential:	No bioaccumulation data 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

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

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

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	
Distillates (petroleum), hydrotreated middle	64742-46-7	Present	Active	
Dec-1-ene, dimers, hydrogenated	68649-11-6	Present	Active	
Proprietary Component A		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

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

Distillates (petroleum), hydrotreated middle (64742-46-7)
Listed on the Canadian DSL (Domestic Substances List)

Dec-1-ene, dimers, hydrogenated (68649-11-6)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Distillates (petroleum), hydrotreated middle (64742-46-7)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

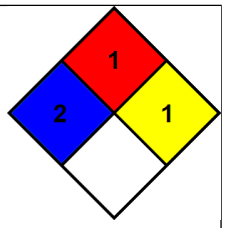
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date: 07/11/2023

Full text of H-phrases	
H304	May be fatal if swallowed and enters airways
H332	Harmful if inhaled
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
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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