



RADCOLUBE® RHP5606

SAFETY DATA SHEET

MIL-PRF-5606J HYDRAULIC FLUID, PETROLEUM BASE; AIRCRAFT, MISSILE, AND ORDNANCE

Issue Date: 27 December 2013

Revision Date: 13 March 2020

Revision Number: 10.2

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: RADCOLUBE® RHP5606

Specifications: MIL-PRF-5606J

Qualification Numbers (Effective Date): AFPET/PTPT 16-003 (11 March 2016)
AFPET/PTPS 20-005 (20 February 2020)
AFPET/PTPS 20-006 (3 March 2020)

ISO 9001:2015 Certification Number: C2018-00035

Military Symbol: OHA
NATO Code: H515

National Stock Numbers (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 Relevant identified uses of the substance or mixture and uses advised against

Petroleum base hydraulic fluid for use in the -54°C to +135°C (-65.2°F to 275°F) temperature range.

1.3 Details of the supplier of the safety data sheet

Headquarters and Manufacturing Facility	Manufacturing Facility
Radco Industries, Inc.	Radco Industries, Inc.
700 Kingsland Drive	39W930 Midan Drive
Batavia, IL 60510	LaFox, IL 60147
CAGE Code 6ZS16	CAGE Code 1RVC4

Customer information number: 1-630-232-7966

1.4 Emergency Telephone Number

Advisory Office in case of poisoning: Chemtrec
Chemtrec (North America): 1-800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

Acute Toxicity (inhalation)	Category 4
Aquatic toxicity, chronic hazard	Category 2
Aspiration hazard	Category 1
Skin Irritation	Category 2
Specific target organ toxicity (STOT)-single exposure (inhalation)	Category 3 (narcosis)

2.2 Label elements

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Hazard pictograms:

Signal word: **DANGER**

Classification of mixture is in accordance with United Nations (UN) Globally Harmonized System of Classification and Labelling of Chemicals (GHS), sixth revised edition (2015), and United States Standard 29 CFR 1910 Occupational Safety and Health Standards.

Hazard statements

H304:	May be fatal if swallowed and enters airways.
H315:	Causes skin irritation.
H319:	Causes serious eye irritation.
H332:	Harmful if inhaled
H336:	May cause drowsiness or dizziness.
H411:	Toxic to aquatic life with long-lasting effects.

Precautionary statements

P202:	Do not handle until all safety precautions have been read and understood.
P261:	Avoid breathing vapors.
P262 + P280:	Do not get in eyes, on skin, or on clothing, and use personal protective equipment as required.
P264:	Wash exposed skin thoroughly after handling.
P270:	Do not eat, drink or smoke when using this product.
P273:	Avoid release to the environment.
P280:	Wear protective gloves, protective clothing, eye protection, and face protection.
P301 + P315 + P330 + P331:	IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Get immediate medical attention.
P302 + P352:	IF ON SKIN: Wash with plenty of water.
P304 + P315 + P341	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical attention.
P305 + P338 + P337 + P313:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
P332 + P313:	If skin irritation occurs, get medical advice/attention.
P362:	Take off contaminated clothing and wash before reuse.

2.3 Other hazards**PBT and vPvB**

This product is not expected to be PBT and vPvB based on components.

NFPA Hazard ID	HMIS Hazard ID
Health: 1	Health: 1
Flammability: 1	Flammability: 1
Reactivity: 0	Reactivity: 0

SECTION 3. Composition/information on ingredients**3.1 Substances**

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Acrylic copolymer

Index number: Not available
 CAS number: Trade secret
 EC number: Trade secret
 REACH number: Not available
 Synonyms: --

Dec-1-ene, dimers, hydrogenated

Index number: Not available
 CAS number: 68649-11-6
 EC number: 500-228-5
 REACH number: 01-2119493069-28
 Synonyms: Polyalphaolefin; PAO; 1-Decene, dimer, hydrogenated; hydrogenated didecene

Distillates (petroleum), hydrotreated light naphthenic

Index number: Not available
 CAS number: 64742-53-6
 EC number: 265-156-6
 REACH number: 01-2119480375-34
 Synonyms: --

Distillate (petroleum), hydrotreated middle

Index number: 649-221-00-X
 CAS number: 64742-46-7
 EC number: 265-148-2
 REACH number: 01-2119489867-12
 Synonyms: --

Proprietary components

Index number: Not available
 CAS number: Trade secret
 EC number: Trade secret
 REACH number: Not available
 Synonyms: Trade secret

3.2 Mixtures

Component	CAS Number	EC Number	%Content	Classification of Labeling	M-Factor
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	265-156-6	> 50%	Asp. Tox. 1 – H304	0
Distillate (petroleum), hydrotreated middle	64742-46-7	265-148-2	< 30%	Acute Tox. 4, H332 Aquatic Chronic 2 – 411 Asp. Tox. 1 – H304 Skin Irrit. 2 – H315	1
Acrylic copolymer	Trade secret	Trade secret	< 20%	Asp Tox. 2 – H332 Skin Irrit. 2 – H315 STOT-SE 3 – H336	0
Dec-1-ene, dimers, hydrogenated	68649-11-6	500-228-5	Trade Secret	Acute Tox. 4 – H332 Asp. Tox. 1 – H304	0
Proprietary components	Trade secret	Trade secret	Trade Secret	Not classified	0

M-Factor determinations are in accordance with UN GHS, sixth revised edition (2015).

See SECTION 16 for full text of the toxicity categories and H-statements listed in this section.

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Indicative occupational exposure limit values

Component	Specific Concentration limits
Acrylic copolymer	None established
Dec-1-ene, dimers, hydrogenated	See SECTION 8 for exposure limits.
Distillates (petroleum), hydrotreated light naphthenic	See SECTION 8 for exposure limits.
Distillate (petroleum), hydrotreated middle	See SECTION 8 for exposure limits.
Proprietary components	None established

SECTION 4. FIRST AID MEASURES**4.1 Description of first aid measures****Eye contact**

Upon accidental eye exposure, wash the eyes promptly with water for at least 20 minutes. If wearing contact lenses, remove them if safe to do so, and continue washing. Get medical attention immediately.

Ingestion

If swallowed, do not induce vomiting. Rinse mouth out with water. Get medical attention immediately.

Inhalation

If respiratory irritation, dizziness, or nausea occurs, move to fresh air and keep at rest in a comfortable position for breathing. If symptoms persist or unconsciousness occurs, seek immediate medical assistance.

Skin contact

Wash skin thoroughly with mild soap and plenty of water for at least 20 minutes. If irritation develops, seek medical advice.

Note to physicians

Treat symptomatically.

4.2 Most important symptoms and effects, both acute and delayed**Acute symptoms****Eye exposure symptoms**

Direct eye exposure may lead to redness and lacrimation (crying tears).

Ingestion symptoms

Small amounts may cause nausea. Large amounts may lead to abdominal obstruction (cramps), constipation or diarrhea.

Inhalation symptoms

May cause irritation of the nose, throat, and lungs. Can cause central nervous system depression, including as dizziness, lethargy, and drowsiness.

Skin exposure symptoms

Short-term exposure is not expected to cause irritation.

Delayed symptoms**Eye exposure symptoms**

Seek medical attention if irritation persists.

Ingestion symptoms

Seek medical attention if abdominal obstruction, constipation or diarrhea

Inhalation symptoms

Seek immediate medical attention if respiratory irritation persists.

Skin exposure symptoms

Repeated exposure may lead to irritation. If rash develops, immediately seek medical attention.

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4.3 Indication of any immediate medical attention and special treatment needed

Suggestions for clinical testing and medical monitoring for delayed effects are not known. Use first aid when applicable and seek guidance from a medical physician for specific treatment.

SECTION 5. FIREFIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media includes alcohol-resistant foam, carbon dioxide, dry chemical or water fog.

5.2 Special hazards arising from the substance or mixture

No data is available.

5.3 Advice for firefighters**Fire-Fighting Equipment**

Firefighter should wear normal protective equipment (full bunker gear) and positive-pressure contained breathing apparatus. Water can be used to cool fire-exposed containers, to protect personnel and to disperse vapors and spills. Water runoff can cause environmental damage. Dike and collect water used to fight fires.

Special Fire-Fighting Procedures

Use water spray to cool fire-exposed containers and structures. If a rail or tank truck is involved in a fire, isolate for 800 meters (0.5 mile) in all directions. Shut off fuel to fire if it is possible to do so without hazard. If this is impossible, withdraw from the area and let the fire burn out under controlled conditions. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Wear personal protective equipment (PPE). Eliminate sources of ignition, if safe to do so. Avoid breathing vapors or mist. Evacuate to designated safe areas.

For emergency responders

If possible, move individual to safe area, and treat symptomatically.

6.2 Environmental precautions

Contain spill, if safe to do so. Prevent from entering sewers or drains.

6.3 Methods and material for containment and cleaning up

Use oil absorbent material to soak up product on the ground. Should this product enter sewers or drains, it should be pumped out into an open vessel. The recovered material should be discarded as hazardous waste.

6.4 Reference to other sections

If appropriate, refer to SECTION 8 and SECTION 13 for additional information.

SECTION 7. HANDLING AND STORAGE**7.1 Precautions for safe handling**

Use personal protective equipment (PPE) when handling this product. Smoking, eating and drinking should be prohibited in the application area.

7.2 Conditions for safe storage, including any incompatibilities

Do not store in open or unlabeled containers. Keep container tightly closed in a dry and well-ventilated place.

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7.3 Specific end use(s)

Petroleum base hydraulic fluid for use in the -54°C to +135°C (-65.2°F to 275°F) temperature range.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters**

Component	Occupational exposure limits
Acrylic copolymer	None established
Dec-1-ene, dimers, hydrogenated	None established
Distillates (petroleum), hydrotreated light naphthenic	ACGIH TLV: (United States, 4/2014) TWA = 5 mg/m ³ 8 hours (inhalable fraction) AFS 2011:18 (Sweden, 12/2011) TWA = 1 mg/m ³ , 8 hours AFS 2011:18 (Sweden, 12/2011) STEL = 3 mg/m ³ , 15 minutes NIOSH REL: (United States, 10/2013) TWA = 5 mg/m ³ 10 hours (mist) NIOSH REL: (United States, 10/2013) STEL = 10 mg/m ³ 15 minutes (mist) OSHA PEL: (United States, 2/2013) TWA = 5 mg/m ³ 8 hours (mist)
Distillate (petroleum), hydrotreated middle	ACGIH TLV: (United States, 4/2014) TWA = 5 mg/m ³ 8 hours (inhalable fraction) AFS 2011:18 (Sweden, 12/2011) TWA = 1 mg/m ³ , 8 hours AFS 2011:18 (Sweden, 12/2011) STEL = 3 mg/m ³ , 15 minutes NIOSH REL: (United States, 10/2013) TWA = 5 mg/m ³ 10 hours (mist) NIOSH REL: (United States, 10/2013) STEL = 10 mg/m ³ 15 minutes (mist) OSHA PEL: (United States, 2/2013) TWA = 5 mg/m ³ 8 hours (mist)
Proprietary components	None established

Biological exposure limits

None established for any of the disclosed components.

8.2 Exposure controls**Appropriate engineering controls**

Practice general industrial hygiene. Do not eat, drink or smoke near product. Wash hands after handling. Remove clothing and wash separate from other laundry.

Personal protective equipment (PPE)**Eye/face protection**

Safety glasses, chemical safety goggles and/or face shields are recommended when handling this product.

Skin protection

For extended handling, wear oil resistant gloves such as neoprene. Nitrile gloves may be appropriate for short handling periods use. Contact a government approved or accredited manufacturer for specific recommendations.

Other protections

Wear protective clothing ensuring minimal skin exposure. Protective clothing should be chemically impervious to oils and other solvents.

Respiratory protection

Use with adequate ventilation. Avoid breathing vapor. If heated and ventilation is inadequate, use NIOSH certified respirator, which will protect against organic vapor.

Environmental exposure controls

Do not allow product to reach ground water, water course, or sewage systems. Stop leaks, if safe to do so. Contain spills with absorbent or adsorbent materials.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Appearance:	Red, clear liquid
Odor:	Odorless

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Odor threshold:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Evaporation Rate (ASTM D972):	< 15% at 71°C (159.8°F) after 22 hours
Explosive properties:	Not available
Flammability (solid, gas):	Non-flammable
Lower flammability limit:	Not determined
Upper flammability limit:	Not determined
Flash point Cleveland Open Cup (ASTM D92):	Not determined
Flash point Pensky-Martens Closed Cup (ASTM D93):	93.5°C (199.4°F)
Initial boiling point and boiling range:	Not determined
Melting point/freezing point:	< -69°C (-92.2°F)
Oxidizing properties:	Non-oxidizing
Partition coefficient (n-octanol/water), Log P _{ow} :	Not determined
pH:	Not applicable
Relative density (ASTM D1298) 15.6°C/15.6°C (60°F/60°F):	0.86 – 0.88
Solubility in water:	Insoluble
Vapor density:	Not determined
Vapor pressure:	Not determined
Viscosity (ASTM D445):	21 mm ² /s at 25°C (77°F)

9.2 Other information

No further information is available.

SECTION 10. STABILITY AND REACTIVITY**10.1 Reactivity**

Non-reactive in its original state.

10.2 Chemical stability

Stable in its original state.

10.3 Possibility of hazardous reactions

Does not occur.

10.4 Conditions to avoid

Oxidizing materials

10.5 Incompatible materials

Keep away from strong oxidizing or reducing agents, including acids, caustics, chlorites (bleach), halogens and peroxides.

10.6 Hazardous decomposition products

Decomposition of this product under fire conditions may produce carbon oxides, phenols, aminic constituents, and other decomposition products.

SECTION 11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

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Acute toxicity	Method	Species	Result
Acrylic copolymer	Dermal	Rat	LD ₅₀ > 2000 mg/kg
	Inhalation	Rat	No data available
	Oral	Rat	LD ₅₀ > 2000 mg/kg
Dec-1-ene, dimers, hydrogenated	Dermal	Rabbit	LD ₅₀ > 5000 mg/kg
	Inhalation	Rat	LC ₅₀ > 5 mg/L after 4 hours
	Oral	Rat	LD ₅₀ > 2000 mg/kg
Distillates (petroleum), hydrotreated light naphthenic	Dermal	Rabbit	LD ₅₀ > 5000 mg/kg
	Inhalation	Rat	LC ₅₀ = 2.18 mg/L air after 4 hours
	Oral	Rat	LD ₅₀ > 5000 mg/kg
Distillate (petroleum), hydrotreated middle	Dermal	Rabbit	LD ₅₀ > 2000 mg/kg body weight
	Inhalation	Rat	LC ₅₀ = 1.78 mg/L
	Oral	Rat	LD ₅₀ > 5000 mg/kg body weight
Proprietary components	--	--	Not classified

Aspiration hazard	Test Method	Species	Result
Acrylic copolymer	--	--	No data available
Dec-1-ene, dimers, hydrogenated	OECD 403	Rat	Aspiration hazard, category 1
Distillates (petroleum), hydrotreated light naphthenic	OECD 403	Rat	Aspiration hazard, category 1
Distillate (petroleum), hydrotreated middle	OECD 403	Rat	Aspiration hazard, category 1
Proprietary components	--	--	Not classified

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH, IARC, NTP or OSHA.

Eye damage / irritation	Test Method	Species	Results
Acrylic copolymer	--	--	Irritant
Dec-1-ene, dimers, hydrogenated	OECD 405	Rabbit	Not irritating
Distillates (petroleum), hydrotreated light naphthenic	OECD 405	Rabbit	Not irritating
Distillate (petroleum), hydrotreated middle	OECD 405	Rabbit	Not irritating
Proprietary components	--	--	Not classified

Germ cell mutagenicity	Test Method	Species	Results
Acrylic copolymer	--	--	No data available
Dec-1-ene, dimers, hydrogenated	OECD 471	<i>S. typhimurium</i>	Not mutagenic
	OECD 474	Mouse	Not mutagenic
Distillates (petroleum), hydrotreated light naphthenic	OECD 474	Mouse	Not mutagenic
Distillate (petroleum), hydrotreated middle	--	--	No data available
Proprietary components	--	--	No data available

Reproductive toxicity	Test Method	Species	Results
Acrylic copolymer	--	--	No data available
Dec-1-ene, dimers, hydrogenated	--	--	No data available
Distillates (petroleum), hydrotreated light naphthenic	OECD 414	Rat	NOAEL = 30 mg/kg bw/day
	OECD 421	Rat	NOAEL ≥ 1000 mg/kg bw/day
Distillate (petroleum), hydrotreated middle	--	--	No data available
Proprietary components	--	--	No data available

Respiratory sensitization

No data available

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Skin sensitization	Test Method	Species	Results
Acrylic copolymer	--	--	No data available
Dec-1-ene, dimers, hydrogenated	OECD 406	Guinea pig	Not sensitizing
Distillates (petroleum), hydrotreated light naphthenic	OECD 406	Guinea pig	Not sensitizing
Distillate (petroleum), hydrotreated middle	OECD 406	Guinea pig	Not sensitizing
Proprietary components	--	--	Not classified

Skin corrosion/irritation	Test Method	Species	Results
Acrylic copolymer	--	--	Irritant
Dec-1-ene, dimers, hydrogenated	OECD 404	Rabbit	Not irritating
Distillates (petroleum), hydrotreated light naphthenic	OECD 404	Rabbit	Not irritating
Distillate (petroleum), hydrotreated middle	OECD 404	Rabbit	Not irritating
Proprietary components	--	--	Not classified

Specific target organ toxicity (STOT)-repeated exposure	Method	Species (route)	Results
Acrylic copolymer	--	--	No data available
Dec-1-ene, dimers, hydrogenated	--	--	No data available
Distillates (petroleum), hydrotreated light naphthenic	OECD 408	Rat (oral)	NOAEL = 125 mg/kg/day
	OECD 410	Rabbit (dermal)	NOAEL = 1000 mg/kg
	OECD 412	Rat (inhalation)	NOAEL > 980 mg/m ³ air (analytical)
Distillate (petroleum), hydrotreated middle	Oral	Rat	NOAEL ≥ 5 mL/kg body weight per day
Proprietary components	--	--	No data available

Specific target organ toxicity (STOT)-single exposure	Results
Acrylic copolymer	Category 3 by inhalation (narcosis)
Dec-1-ene, dimers, hydrogenated	No data available
Distillates (petroleum), hydrotreated light naphthenic	No data available
Distillate (petroleum), hydrotreated middle	No data available
Proprietary components	No data available

11.2 Other information

See SECTION 16 for toxicity references.

SECTION 12. ECOLOGICAL INFORMATION**12.1 Toxicity**

Aquatic Toxicity	Test Method	Species	Results
Acrylic copolymer	--	<i>L. macrochirus</i>	LC ₅₀ = 2.2 mg/L after 96 hours
Dec-1-ene, dimers, hydrogenated	EPA OTS 797.1050	<i>P. subcapitata</i>	NOELR > 1000 mg/L WAF after 96 hours
	OECD 202	<i>Daphnia sp.</i>	EL ₅₀ > 1000 mg/L after 48 hours
	OECD 211	<i>D. magna</i>	NOELR = 125 mg/L WAF after 21 days
Distillates (petroleum), hydrotreated light naphthenic	OECD 201	<i>P. subcapitata</i>	NOEL > 1.93 mg/L after 4 days
	OECD 202	<i>D. magna</i>	NOEL ≥ 1000 mg/L after 48 hours
	OECD 211	<i>D. magna</i>	NOEL = 10 mg/L after 21 days
Distillate (petroleum), hydrotreated middle	OECD 201	<i>Algae</i>	NOEL = 10 mg/L after 752 hours
	OECD 203	<i>O. mykiss</i>	LL ₅₀ > 1000 mg/L after 24 hours
	QSAR model	<i>D. magna</i>	NOEL = 0.163 mg/L
Proprietary components	--	--	Not classified

Terrestrial Toxicity	Test Method	Species	Results
Acrylic copolymer	--	--	No data available
Dec-1-ene, dimers, hydrogenated	OECD 222	<i>Eisenia sp.</i>	LC ₅₀ > 1000mg/kg after 56 days
			EC ₅₀ = 630 mg/kg after 56 days
			NOEC = 500 mg/kg after 56 days
Distillates (petroleum), hydrotreated light naphthenic	--	--	No data available

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Distillate (petroleum), hydrotreated middle	QSAR model	<i>Mallard duck</i>	NOEL > 5000ppm
Proprietary components	--	--	Not classified

12.2 Persistence and degradability

Biodegradation	Test Method	Results
Acrylic copolymer	--	No data available
Dec-1-ene, dimers, hydrogenated	CEC L-33-T-82	CO ₂ = 39.4%. Not readily biodegradable
Distillates (petroleum), hydrotreated light naphthenic	<i>Read across</i>	2 – 4 % degradation within 28 days.
Distillate (petroleum), hydrotreated middle	--	No data available
Proprietary components	--	No data available

12.3 Bioaccumulative potential

Bioconcentration Factor (BCF)	Results
Acrylic copolymer	No data available
Dec-1-ene, dimers, hydrogenated	No data available
Distillates (petroleum), hydrotreated light naphthenic	No data available
Distillate (petroleum), hydrotreated middle	BCF < 500
Proprietary components	No data available

Partition Coefficient n-octanol / water (Log K _{ow})	Results
Acrylic copolymer	No data available
Dec-1-ene, dimers, hydrogenated	Log P _{ow} > 6.5
Distillates (petroleum), hydrotreated light naphthenic	No data available
Distillate (petroleum), hydrotreated middle	Log P _{ow} > 4
Proprietary components	No data available

12.4 Mobility in soil

Soil Mobility	Results
Acrylic copolymer	No data available
Dec-1-ene, dimers, hydrogenated	Log K _{oc} > 6.2
Distillates (petroleum), hydrotreated light naphthenic	No data available
Distillate (petroleum), hydrotreated middle	Log K _{ow} > 3.0
Proprietary components	No data available

12.5 Results of PBT and vPvB assessment

Chemical	PBT and vPvB assessment results
Acrylic copolymer	The substance is not PBT / vPvB.
Dec-1-ene, dimers, hydrogenated	The substance is not PBT / vPvB.
Distillates (petroleum), hydrotreated light naphthenic	The substance is not PBT / vPvB.
Distillate (petroleum), hydrotreated middle	The substance is not PBT / vPvB.
Proprietary components	These substances are not PBT / vPvB.

12.6 Other adverse effects

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Chemical	Results
Acrylic copolymer	No other adverse effects are known.
Dec-1-ene, dimers, hydrogenated	Less than 53.5% degradation in water after 28 days.
Distillates (petroleum), hydrotreated light naphthenic	No other adverse effects are known.
Distillate (petroleum), hydrotreated middle	Spills may hinder oxygen transfer in aquatic environments.
Proprietary components	No other adverse effects are known.

SECTION 13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

This unused material, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations; however, it could be considered hazardous if it meets U.S. EPA (40 CFR Subpart C) criteria for being toxic, corrosive, ignitable, or reactive. This material could also become hazardous waste if it is mixed with or meets a listed hazardous waste. If it is a hazardous waste, regulations in 40 CFR 262-266, 268, 270, and 279 may apply.

SECTION 14. TRANSPORTATION INFORMATION**U.S. Dept. of Transportation Shipping Name****Not regulated:**

49 CFR 171.4c: (1) Except when all or part of the transportation is by vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicle, rail car or aircraft. (2) Single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other requirements of this subchapter provided the packagings meet the general requirements in 173.24 and 173.24a.

Canadian Transportation of Dangerous Goods Shipping Name (TDG)

UN Number:

UN3082

UN Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISTILLATE (PETROLEUM), HYDROTREATED MIDDLE MIXTURE)

Transport hazard class:

9

Packing group:

III

Not regulated (450-liter or less inner packaging):

Special Provision 99 (2): These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., or less than 450 L of UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety.

International Air Transport Association (IATA)

UN Number:

3082

UN Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISTILLATE (PETROLEUM), HYDROTREATED MIDDLE MIXTURE)

Transport hazard class:

9

Packing group:

III

Not regulated (5-liter or less inner packaging):

Special Provision A197: These substances when transported in single or combination packagings containing net quantity per single or inner packaging of less than 5 L or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general provisions 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

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International Carriage of Dangerous Goods by Inland Waterways (ADN)

UN Number: UN3082
UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISTILLATE (PETROLEUM), HYDROTREATED MIDDLE MIXTURE)
Transport hazard class: 9
Packing group: III
MARPOL73/78 and IBC Code: P
Emergency schedules (EmS): F-A, S-F
Special provisions: 274; 335; 375; 601

Not regulated (5-liter or less inner packaging): **Special Provision 375:** These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or 5 kg or less for solids, are not subject to any other provision of ADN provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 of ADR.

International Carriage of Dangerous Goods by Rail (RID)

UN Number: UN3082
UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISTILLATE (PETROLEUM), HYDROTREATED MIDDLE MIXTURE)
Transport hazard class: 9
Packing group: III
Special provisions: 274; 335; 375; 601

Not regulated (5-liter or less inner packaging): **Special Provision 375:** These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of the RID provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

International Carriage of Dangerous Goods by Road (ADR)

UN Number: UN3082
UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISTILLATE (PETROLEUM), HYDROTREATED MIDDLE MIXTURE)
Transport hazard class: 9
Packing group: III
Special provisions: 274; 335; 375; 601

Not regulated (5-liter or less inner packaging): **Special Provision 375:** These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

International Civil Aviation Organization (ICAO)

UN Number: 3082
UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISTILLATE (PETROLEUM), HYDROTREATED MIDDLE MIXTURE)
Transport hazard class: 9
Packing group: III

Not regulated (5-liter or less inner packaging): **Special Provision A197:** These substances when transported in single or combination packagings containing net quantity per single or inner packaging of less than 5 L or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general provisions 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

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International Maritime Dangerous Goods Code (IMDG Code)

UN Number:	UN3082
UN Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISTILLATE (PETROLEUM), HYDROTREATED MIDDLE MIXTURE)
Transport hazard class:	9
Packing group:	III
MARPOL73/78 and IBC Code:	P
Emergency schedules (EmS):	F-A, S-F
Special provisions:	274; 335; 969

Not regulated (5-liter or less inner packing): **2.10.2.7:** Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provision of this Code relevant to marine pollutants provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants also meeting the criteria for inclusion in another hazard class, all provisions of this Code relevant to any additional hazards continue to apply.

SECTION 15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Australia Inventory (AICS)**

All the ingredients are listed.

California Proposition 65

This product does not contain any chemicals known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Canadian Domestic Substances List/Non-Domestic Substances List (DSL/NDSL)

All the ingredients are listed.

China Inventory of Existing Chemical Substances (IECSC)

All the ingredients are listed.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Reportable Quantity

This product is not reportable under 40 CFR Part 302.4.

International Agency for Research on Cancer (IARC)

None of the ingredients are listed.

Japan Existing and New Chemical Substances (ENCS)

All the ingredients are listed.

Korean Existing and Evaluated Chemical Substances (KECL)

All the ingredients are listed.

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All the ingredients are listed.

SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355)

This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA Title III Section 313 (40 CFR Part 372)

This product is not regulated under Section 313 of SARA and 40 CFR Part 372.

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SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370)

Hazardous categories for this product are:

Acute = No Chronic = No Fire = No Pressure = No Reactive = No

United States Toxic Substances Control Act (TSCA)

All the ingredients are listed.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been conducted.

SECTION 16. OTHER INFORMATION

Safety Data Sheet Creation Date: 27 December 2013
 Safety Data Sheet Revision Date: 13 March 2020
 Revision Number: 10.2

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.

RADCOLUBE® is a registered trademark of Radco Industries, Inc.

Toxicological References

"Dec-1-ene, dimers, hydrogenated." *Registration Dossier - ECHA*. European Chemicals Agency, [no date]. Web. 25 Apr. 2017.
 "Distillate (petroleum), hydrotreated middle." *Registration Dossier - ECHA*. European Chemicals Agency, [no date]. Web. 17 Apr. 2017.
Globally Harmonized System of Classification and Labelling of Chemicals: (GHS). 6th ed. New York: United Nations, 2015. Print.

Definitions

ACGIH	Association Advancing Occupational and Environmental Health
AFS 2011:18	Swedish Work Environment Authority's provisions and general recommendations on occupational exposure limit values
Aquatic Acute 2	Aquatic toxicity, acute hazards, category 2
Aquatic Chronic 2	Aquatic toxicity, chronic hazards, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Asp. Tox. 2	Aspiration hazard, category 2
Aspiration hazard, category 1	Hydrocarbons with kinematic viscosity ≤ 20.5 mm ² /s are classified by OSHA as an aspiration hazard.
CEC L-33-T-82	Coordinating European Council Test Method for Biodegradability (1982 revision)
EC number	European Community number
EC ₅₀	Concentration that effects 50% of the test population.
EPA OTS 797.1050	United States Environmental Protection Agency Test Guideline 797.1050: Algal Acute Toxicity Test
EU	European Union
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation
H332	Harmful if inhaled.
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
LC ₅₀	Lethal concentration that causes 50% death in test population.
LD ₅₀	Lethal dose that causes 50% death in test population.
M-Factor	Multiplying factor for substances that are toxic to aquatic environment.
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NOELR	No observable effect loading rate

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NOEL	No observable effect level
NOEC	No observable effect concentration
OECD 201	OECD Guideline 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test
OECD 202	OECD Guideline 202: Daphnia sp. Acute Immobilization Test
OECD 203	OECD Guideline 203: Fish, Acute Toxicity Test
OECD 211	OECD Guideline 211: Daphnia magna Reproduction Test
OECD 222	OECD Guideline 222: Earthworm Reproduction Test (<i>Eisenia fetida</i> / <i>Eisenia andrei</i>)
OECD 403	OECD Guideline 403: Acute Inhalation Toxicity
OECD 404	OECD Guideline 404: Acute Dermal Irritation/Corrosion
OECD 406	OECD Guideline 406: Skin Sensitization Test
OECD 471	OECD Guideline 407: Bacterial Reverse Mutation Test
OECD 474	OECD Guideline 474: Mammalian Erythrocyte Micronucleus Test
OSHA	United States Department of Labor Occupational Safety and Health Administration
PBT	Persistence Bioaccumulation and Toxicity
QSAR model	Quantitative structure–activity relationship model
Skin Irrit. 2	<i>See Skin irritation, Category 2 for definition.</i>
Skin irritation, Category 2	Inflammation, alopecia (limited area), hyperkeratosis, hyperplasia, and scaling that fully reverses after 14 day in animal studies.
UN	United Nations
US	United States of America
vPvB	Very persistent and very bioaccumulative