



RADCOLUBE® 17111

SAFETY DATA SHEET

MIL-DTL-17111E(1) FLUID, POWER TRANSMISSION

1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name**

RADCOLUBE® 17111

This product meets Military Specification MIL-DTL-17111E(1).

ISO 9001:2008 Certification Number: C2018-00035

**Recommended Use**

For use in the hydraulic transmission of power. This fluid is identified by NATO Code No. H-575.

National Stock Numbers Available From Radco

9150-00-261-8317 5-Gallon Pails

9150-00-261-8318 55-Gallon Drums

**Company Identification**

Headquarters and Manufacturing Facility (CAGE 6ZS16)

Radco Industries, Inc.

700 Kingsland Drive

Batavia, IL 60510

Customer information number: 1-630-232-7966

**EMERGENCY TELEPHONE NUMBER**

**Advisory Office in case of poisoning: Chemtrec**

Chemtrec (North America): 1-800-424-9300

2. HAZARDS IDENTIFICATION

**Classification of mixture:**

Aspiration hazard

Eye irritation:

Skin irritation:

Specific target organ – single exposure (inhalation)

**Category**

Category 1

Category 2

Category 2

Category 3

**Hazard Pictogram:**



**Signal Word:**

DANGER

**Hazard Statements:**

H304:	May be fatal if swallowed and enters airways.
H315:	Causes skin irritation.
H320:	Causes eye irritation.
H336:	May cause drowsiness or dizziness.

**Precautionary Statements:**

P260:	Do not breathe dust/fume/gas/mist/vapors/spray.
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P264:	Wash body and hair thoroughly after handling.
P270:	Do not eat, drink or smoke when using this product.
P281 +P280:	Use personal protective equipment as required. Wear protective gloves, protective clothing, eye protection, and face protection.
P303 + P352	IF ON SKIN (on hair): Wash with plenty of soap and water.
P305 + P351 + P338 + P313:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical advice/attention.
P308 + P313:	IF exposed or concerned: Get medical advice/attention.
P332 + P313:	If skin irritation occurs: Get medical advice/attention.
P405:	Store locked up.
P501:	Dispose of contents/container to an approved waste disposal plant.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>%Composition</u>	<u>CAS Number</u>
Distillates (petroleum), hydrotreated light naphthenic	Proprietary	64742-53-6
Distillates (petroleum), hydrotreated heavy paraffinic	Proprietary	64742-54-7
Distillates (petroleum), hydrotreated light paraffinic	Proprietary	64742-55-8
Acrylic copolymer	Proprietary	Trade Secret

### 4. FIRST-AID MEASURES

#### Eyes

Immediately flush eyes with plenty of water for at least 15 minutes.

#### Ingestion

If swallowed, drink plenty of water, DO NOT induce vomiting. Immediately call a doctor.

#### Inhalation

Move to fresh air. If unconscious place in recovery position and seek medical advice. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. Remove from further exposure. Immediately call a doctor.

#### Skin

Wash exposed skin with soap and water.

### 5. FIRE-FIGHTING MEASURES

#### Suitable Extinguishing Media

For small fires use carbon dioxide, dry chemical or foam.

For large fires use alcohol-type foam, universal type foam or water fog.

#### 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.



## 6. ACCIDENTAL RELEASE MEASURES

Wear protective clothing when taking up spill. Eliminate sources of ignition. This product is insoluble in water and will float on the surface. Prevent from entering sewers or drains. Should this product enter sewers or drains, it should be pumped out into an open vessel.

## 7. HANDLING AND STORAGE

### Handling

Do not breathe vapors/dust. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

### Storage

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

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	Occupational exposure limits
Acrylic copolymer	None established
Distillates (petroleum), hydrotreated light	ACGIH TLV: (United States, 4/2014) TWA = 5 mg/m <sup>3</sup> 8 hours (inhalable fraction) AFS 2011:18 (Sweden, 12/2011) TWA = 1 mg/m <sup>3</sup> , 8 hours AFS 2011:18 (Sweden, 12/2011) STEL = 3 mg/m <sup>3</sup> , 15 minutes NIOSH PEL: (United States, 10/2013) TWA = 5 mg/m <sup>3</sup> 10 hours (mist) NIOSH PEL: (United States, 10/2013) STEL = 10 mg/m <sup>3</sup> 15 minutes (mist) OSHA PEL: (United States, 2/2013) TWA = 5 mg/m <sup>3</sup> 8 hours (mist)
Distillates, petroleum, hydrotreated light paraffinic	ACGIH TLV: (United States, 4/2014) TWA = 5 mg/m <sup>3</sup> 8 hours (inhalable fraction) AFS 2011:18 (Sweden, 12/2011) TWA = 1 mg/m <sup>3</sup> , 8 hours AFS 2011:18 (Sweden, 12/2011) STEL = 3 mg/m <sup>3</sup> , 15 minutes NIOSH PEL: (United States, 10/2013) TWA = 5 mg/m <sup>3</sup> 10 hours (mist) NIOSH PEL: (United States, 10/2013) STEL = 10 mg/m <sup>3</sup> 15 minutes (mist) OSHA PEL: (United States, 2/2013) TWA = 5 mg/m <sup>3</sup> 8 hours (mist)

### 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.

### Hand Protection

Wear clothing and gloves that cannot be penetrated by chemicals or oil.

### Eye Protection

Safety glasses, chemical goggles, or face shields recommended to prevent contact.

### Other Protection

Do not eat, drink, or smoke when handling this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Transparent liquid
Odor:	Light bland petroleum
Odor threshold:	Not Determined
Auto-ignition temperature:	Not Determined
Decomposition temperature:	Not Determined
Evaporation Rate (ASTM D972):	Not Determined
Flash point Cleveland Open Cup (ASTM D92):	Not Determined
Flash point Pensky-Martens (ASTM D93):	>104°C
Flammability (solid, gas):	Flammable Liquid, Category 4: Combustible Liquid



Lower flammability limit:	Not Determined
Upper flammability limit:	Not Determined
Initial boiling point and boiling range:	Not Determined
Melting point/freezing point:	Not determined
Partition coefficient (n-octanol/water), Log P <sub>ow</sub> :	Not Determined
pH:	Not applicable
Solubility:	Water insoluble
Relative density (ASTM D1298) 15.6°C/15.6°C:	0.87
Vapor density:	Not Determined
Vapor pressure:	< 1.0 mmHg at 25°C (77°F)
Viscosity (ASTM D445):	25.4 cSt at 40°C 8.3 cSt at 100°C

## 10. STABILITY AND REACTIVITY INFORMATION

### Materials to avoid

Exposure to materials which are highly oxidizing should be avoided.

### Hazardous polymerization

Does not occur.

### Hazardous decomposition products

Incomplete combustion may give various cracked and oxidized hydrocarbons.

### Stability

Stable

## 11. TOXICOLOGICAL INFORMATION

Acute toxicity	Method	Species	Result
Acrylic copolymer	Dermal	Rat	LD <sub>50</sub> > 2000 mg/kg
	Inhalation	Rat	No data available
	Oral	Rat	LD <sub>50</sub> > 2000 mg/kg
Distillates (petroleum), hydrotreated light	Dermal	Rat	LD <sub>50</sub> = 5000 mg/kg
	Inhalation	Rat	LC <sub>50</sub> > 5.28 mg/L after 4 hours
	Oral	Rat	LD <sub>50</sub> > 5000 mg/kg
Distillates, petroleum, hydrotreated light paraffinic	Dermal	Rat	LD <sub>50</sub> = 5000 mg/kg
	Inhalation	Rat	LC <sub>50</sub> > 5.53 mg/L after 4 hours
	Oral	Rat	LD <sub>50</sub> > 5000 mg/kg

Aspiration hazard	Test Method	Species	Result
Acrylic copolymer	--	--	No data available
Distillates (petroleum), hydrotreated light	OECD 403	Rat	LC <sub>50</sub> > 5.53 mg/L after 4 hours
Distillates, petroleum, hydrotreated light paraffinic	OECD 403	Rat	LC <sub>50</sub> > 5.28 mg/L after 4 hours

Carcinogenicity	Test Method	Species	Result
Acrylic copolymer	--	--	Not classified as carcinogen by IARC, NTP and OSHA.
Distillates (petroleum), hydrotreated light	--	--	Not classified as carcinogen by IARC, NTP and OSHA.
Distillates, petroleum, hydrotreated light paraffinic	OECD 451	Mouse	Non-carcinogenic



Eye damage / irritation	Test Method	Species	Results
Acrylic copolymer	--	--	Irritant
Distillates (petroleum), hydrotreated light	EPA OTS 798.4500	Rabbit	Not irritating
Distillates, petroleum, hydrotreated light paraffinic	OECD 405	Rabbit	Not irritating

Germ cell mutagenicity	Test Method	Species	Results
Acrylic copolymer	--	--	No data available
Distillates (petroleum), hydrotreated light	--	<i>S. typhimurium</i>	Not mutagenic
Distillates, petroleum, hydrotreated light paraffinic	OECD 471	<i>S. typhimurium</i>	Not mutagenic

Reproductive toxicity	Test Method	Species	Results
Acrylic copolymer	--	--	No data available
Distillates (petroleum), hydrotreated light	OECD 421	Rat	NOAEL ≥ 494 mg/kg/day
Distillates, petroleum, hydrotreated light paraffinic	OECD 421	Rat	NOAEL ≥ 1000 mg/kg/day

**Respiratory sensitization**

No data available

Skin sensitization	Test Method	Species	Results
Acrylic copolymer	--	--	No data available
Distillates (petroleum), hydrotreated light	Buehler test	Guinea pig	Not sensitizing
Distillates, petroleum, hydrotreated light paraffinic	OECD 406	Guinea pig	Not sensitizing

Skin corrosion/irritation	Test Method	Species	Results
Acrylic copolymer	--	--	Irritant
Distillates (petroleum), hydrotreated light	OECD 404	Rabbit	Not irritating
Distillates, petroleum, hydrotreated light paraffinic	--	Rabbit	Not irritating

Specific target organ toxicity – single exposure (STOT-SE)	Results
Acrylic copolymer	Inhalation may cause drowsiness or dizziness.
Distillates (petroleum), hydrotreated light	No data available
Distillates, petroleum, hydrotreated light paraffinic	No data available

**12. ECOLOGICAL CONSIDERATIONS**

Aquatic Toxicity	Test Method	Species	Results
Acrylic copolymer	--	<i>L. macrochirus</i>	LC <sub>50</sub> = 2.2 mg/L after 96 hours
Distillates (petroleum), hydrotreated light	OECD 201	<i>Alga</i>	EL <sub>50</sub> = ≤ 3 mg/L
	OECD 202	<i>Daphnia sp.</i>	EL <sub>50</sub> = 1.4 mg/L after 48 hours
	OECD 203	<i>O. mykiss</i>	NOEL = 2.0 mg/L
	OECD 211	<i>Daphnia sp.</i>	NOEL = 0.48 mg/L
Distillates, petroleum, hydrotreated light paraffinic	(Q)SAR	--	NOAEL = 0.098 mg/L
	DIN 38412:34	Microorganisms	NOEL > 1.93 mg/L
	OECD 201	<i>Alga</i>	NOEL ≥ 100 mg/L
	OECD 202	<i>Daphnia sp.</i>	NOEL > 10,000 mg/L after 48 hours
	OECD 203	<i>P. promelas</i>	NOEL ≥ 100 mg/L
OECD 211	<i>Daphnia sp.</i>	NOEL = 10 mg/L after 21 days	
(Q)SAR	--	NOELR ≥ 1000 mg/L after 14 days	

Biodegradation	Test Method	Results
Acrylic copolymer	--	No data available
Distillates (petroleum), hydrotreated light	OECD 301F	Readily biodegradable: 61% degradation after 28 days
Distillates, petroleum, hydrotreated light paraffinic	OECD 301F	Inherently biodegradable: 31% degradation after 28 days

**13. DISPOSAL INFORMATION**

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 criteria for being toxic, corrosive, ignitable, or reactive according to U.S. EPA definitions (40 CFR Subpart C). This material could also become hazardous waste if it is mixed with or comes into contact with a listed hazardous waste. If it is a hazardous waste, regulations in 40 CFR 262-266, 268, 270, and 279 may apply.

#### 14. TRANSPORT INFORMATION

##### **United States Department of Transportation (DOT)**

Not regulated

##### **Canada Transport - Transportation of Dangerous Goods (TDG)**

Not regulated

##### **International Air Transport Association (IATA)**

Not regulated

##### **International Carriage of Dangerous Goods by Inland Waterways (AND)**

Not regulated

##### **International Carriage of Dangerous Goods by Rail (RID)**

Not regulated

##### **International Carriage of Dangerous Goods by Road (ADR)**

Not regulated

##### **International Civil Aviation Organization (ICAO)**

Not regulated

##### **International Maritime Dangerous Goods Code (IMDG Code)**

Not regulated

#### 15. REGULATORY INFORMATION

##### **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.

##### **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 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.

##### **SARA Title III Section 313 (40 CFR Part 372)**

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

##### **U.S. Inventory (TSCA)**

Listed on inventory.

#### 16. OTHER INFORMATION

Safety Data Sheet Creation Date: 2 June 2015

Safety Data Sheet Revision Date: 8 October 2018

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