



RADCOLUBE® SBR-1

SAFETY DATA SHEET

MIL-PRF-46176B BRAKE FLUID, SILICONE, AUTOMOTIVE,
ALL-WEATHER, OPERATIONAL AND PRESERVATIVE

Issue Date: 17 January 2012

Revision Date: 30 March 2018

Revision Number: 5.0

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

1.1 Product Identifier

Product Name:

RADCOLUBE® SBR-1

Specifications:

MIL-PRF-46176B

United States 49 CFR 571.116 Standard No. 116 - Motor Vehicle Silicone-based Brake Fluid (DOT 5)

Qualification Number:

SBF-1033

Qualification Date:

23 January 2017

ISO 9001:2015 Certification Number:

C2018-00035

National Stock Numbers (NSN):

9150-01-102-9455

9150-01-123-3152

9150-01-072-8379

1-Gallon

5-Gallon Pail

55-Gallon Drum

1.2 Relevant identified uses of the substance or mixture and uses advised against

The brake fluid is intended for use as an operational fluid and preservative fluid in automotive hydraulic brake systems at ambient temperatures ranging from 55°C to -55°C (131°F to -67°F) and fluid temperatures ranging from 205°C to -55°C (401°F to -67°F).

1.3 Details of the supplier of the safety data sheet

Headquarters and Manufacturing Facility

Radco Industries, Inc.

700 Kingsland Drive

Batavia, IL 60510

CAGE Code 6ZS16

Manufacturing Facility

Radco Industries, Inc.

39W930 Midan Drive

LaFox, IL 60147

(CAGE Code 1RVC4)

Customer information number: 1-630-232-7966

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1.4 Emergency Telephone Number

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

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Aquatic toxicity, acute hazards
Aquatic toxicity, chronic hazards
Carcinogenicity
Eye irritation
Skin irritation

Category 4
Category 2
Category 2
Category 2A
Category 2

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.

See SECTION 16 for toxicity category definitions.

2.1 Label elements

Hazard pictograms:



Health Hazard



Environmental Hazard

Signal word:

DANGER

Hazard statements

H302:	Harmful if swallowed.
H315:	Causes skin irritation.
H320:	Causes eye irritation.
H351:	Suspected of causing cancer.
H411:	Toxic to aquatic life with long lasting effects.

Precaution statements

P101:	If medical advice is needed, have product container or label at hand.
P202:	Do not handle until all safety precautions have been read and understood.
P270:	Do not eat, drink or smoke when using this product.
P273:	Avoid release to the environment.



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P280:	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P331 + P315:	IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Get immediate medical advice/attention.
P303 + P353:	IF ON SKIN (or hair): Rinse skin with water/shower.
P304 + P340 + P342 + P315:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms, get immediate medical advice/attention.
P305 + P351 + P338 + P310:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
P306 + P363:	IF ON CLOTHING: Wash contaminated clothing before reuse.
P404:	Store in a closed container.
P501:	Dispose of contents/container in accordance with local/regional/national/international regulation.

2.2 Other hazards

PBT and vPvB

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

NFPA Hazard ID

Health: 1
Flammability: 1
Reactivity: 0

HMIS Hazard ID

Health: 1
Flammability: 1
Reactivity: 0

SECTION 3. Composition/information on ingredients

3.1 Substances

Bis(2-ethylhexyl) sebacate

Index number:
CAS number:
EC number:
REACH number:
Synonyms:

Not available

122-62-3

204-558-8

01-2119970601-40

Dioctyl sebacate

Polydimethylsiloxane

Index number:
CAS number:
EC number:
REACH number:
Synonyms:

Not available



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63148-62-9

613-156-5

Not available

Dimethylpolysiloxane; PDMS; Silicone oil

Tributyl phosphate

Index number:

CAS number:

EC number:

REACH number:

Synonyms:

015-014-00-2

126-73-8

204-800-2

01-2119492859-14

Tri-n-butyl phosphate

3.2 Mixtures

Component	CAS Number	EC Number	%Content	Classification of Labeling	M-Factor
Bis(2-ethylhexyl) sebacate	122-62-3	204-558-8	< 10%	Not classified	0
Polydimethylsiloxane	63148-62-9	613-156-5	> 80%	Aquatic chronic 2 - H411 Eye irrit. 2A - H320 Skin Irrit. 2 - H315	1
Tributyl phosphate	126-73-8	204-800-2	< 10%	Aquatic chronic 2 - H411 Carc. 2 - H351 Skin irrit. 2- H315	1

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.

Indicative occupational exposure limit values

No Union workplace exposure limits have been established under Commission Directives 91/322/ECC, 2000/39/EC, and 2006/15/EC.

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



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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.

Skin exposure symptoms

Short-term exposure is not expected to cause irritation.

Delayed symptoms

Eye exposure symptoms

None expected, however seek medical attention if irritation persists.

Ingestion symptoms

None expected, however seek medical attention if abdominal obstruction, constipation or diarrhea persists.

Inhalation symptoms

None expected, however seek medical attention if respiratory irritation persists.

Skin exposure symptoms

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

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.



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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.

7.3 Specific end use(s)

This product is intended for use in automotive hydraulic brake systems. If this product is used to replace another type or brand of brake fluid, adequate flushing of the brake system must be accomplished to remove all traces of the previous fluid. If the previous fluid is not completely removed, the corrosion-protective, operational performance and preservative properties of the silicone fluid will be negated.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits



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Component	CAS Number	EC Number	Permissible Exposure Limits (PEL)
Bis(2-ethylhexyl) sebacate	122-62-3	204-558-8	None established
Polydimethylsiloxane	63148-62-9	613-156-5	None established
Tributyl phosphate	126-73-8	204-800-2	ACGIH Threshold Limit Values (TLV): NIOSH Recommended Exposure Limits: Occupational Exposure Limits (OSHA) - Table Z-1: PEL California permissible exposure limits (Title 8, Article 107): 5 mg/m ³ ; 0.20 ppm 2.5 mg/m ³ ; 0.20 ppm 5 mg/m ³ 2.5 mg/m ³ ; 0.2 ppm

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:	Violet viscous fluid
Odor:	Odorless
Odor threshold:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Evaporation Rate:	Not determined



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Explosive properties:	None
Flammability (solid, gas):	Non-flammable
Lower flammability limit:	Not available
Upper flammability limit:	Not available
Flash point Cleveland Open Cup (ASTM D92):	204°C (399°F)
Flash point Pensky-Martens (ASTM D93):	Not determined
Initial boiling point and boiling range:	Not determined
Melting point/freezing point:	Not determined
Oxidizing properties:	Not determined
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):	0.94
Solubility in water:	Insoluble
Vapor density:	Not determined
Vapor pressure:	Not Determined
Viscosity (ASTM D445):	< 0.23 mmHg at 20°C (68°F) > 1.3 mm ² /s at 100°C (212°F) < 900 mm ² /s at -55°C (-67°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, silicone oxides, phenols, phosphates, and other decomposition products.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Method	Species	Result
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Bis(2-ethylhexyl) sebacate	Dermal Inhalation Oral	Rat Rat Rat	LD ₅₀ = 18,300 mg/kg LC ₅₀ > 3.2 mg/L LD ₅₀ = 12,800mg/kg
Polydimethylsiloxane	Dermal Inhalation Oral	Rat -- Rat	LD ₅₀ > 15,440 mg/kg -- LD ₅₀ > 15,440 mg/kg
Tributyl phosphate	Dermal Inhalation Oral	Rat Rat Rat	LD ₅₀ > 3,100 mg/kg LC ₅₀ > 4.2 mg/l after 4 hours LD ₅₀ = 1,552 mg/kg

Aspiration hazard	Test Method	Species	Result
Bis(2-ethylhexyl) sebacate	OECD 403	Rat	LC ₅₀ > 3.2 mg/L
Polydimethylsiloxane	--	--	No data available
Tributyl phosphate	OECD 403	Rat	LC ₅₀ > 4.2 mg/l after 4 hours

Carcinogenicity	Test Method	Species	Result
Bis(2-ethylhexyl) sebacate	--	--	No data available
Polydimethylsiloxane	--	--	No data available
Tributyl phosphate	EPA OTS 798.3300	Rat	NOEL = 8.9 mg/kg

Eye damage / irritation	Test Method	Species	Results
Bis(2-ethylhexyl) sebacate	OECD 405	Rabbit	Not irritating
Polydimethylsiloxane	--	--	No data available
Tributyl phosphate	OECD 405	Rabbit	Slightly irritating

Germ cell mutagenicity	Test Method	Species	Results
Bis(2-ethylhexyl) sebacate	OECD 473	Hamster	Not mutagenic
Polydimethylsiloxane	Ames test	<i>S. typhimurium</i>	Not mutagenic
Tributyl phosphate	Ames test	<i>S. typhimurium</i>	Not mutagenic

Reproductive toxicity	Test Method	Species	Results
Bis(2-ethylhexyl) sebacate	OECD 414 OECD 415	Rat Rat	NOAEL ≥ 1080 mg/kg bodyweight/day LOAEL = 2399 mg/kg bodyweight/day
Polydimethylsiloxane	--	--	No data available
Tributyl phosphate	EPA OTS 798.4700 EPA OTS 798.4900	Rat Rat	NOAEL ≥ 225 mg/kg bodyweight NOAEL = 750 mg/kg bodyweight/day

Respiratory sensitization

No data available

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Skin sensitization	Test Method	Species	Results
Bis(2-ethylhexyl) sebacate	OECD 406	Guinea pig	Not sensitizing
Polydimethylsiloxane	--	--	No data available
Tributyl phosphate	EPA OTS 798.4100	Guinea pig	Not sensitizing

Skin corrosion/irritation	Test Method	Species	Results
Bis(2-ethylhexyl) sebacate	OECD 404	Rabbit	Not irritating
Polydimethylsiloxane	--	--	No data available
Tributyl phosphate	OECD 404	Rabbit	Slightly irritating

Specific target organ toxicity - repeated exposure (STOT-RE)	Test Method	Species	Results
Bis(2-ethylhexyl) sebacate	OECD 407	Rat	NOAEL ≥ 1000 mg/kg
Polydimethylsiloxane	--	--	No data available
Tributyl phosphate	EPA OTS 798.2650	Mouse	NOEL = 75 mg/kg bodyweight

Specific target organ toxicity - single exposure (STOT-SE)

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
Bis(2-ethylhexyl) sebacate	OECD 201 OECD 202 OECD 203	<i>D. subspicatus</i> <i>Daphnia sp.</i> <i>Leuciscus idus</i>	EC ₅₀ > 1000 mg/L after 72 hours EC ₅₀ > 1000 mg/L after 48 hours LC ₅₀ > 1000 mg/L after 96 hours
Polydimethylsiloxane	--	--	No data available
Tributyl phosphate	FEA 1984 OECD 202 OECD 203	<i>Daphnia magna</i> <i>Daphnia sp.</i> <i>Oryzias latipes</i>	NOEC = 1.3 mg/L after 24 hours NOEC = 1.8 mg/L LC ₅₀ = 17 mg/L after 96 hours

Terrestrial Toxicity	Test Method	Species	Results
Bis(2-ethylhexyl) sebacate	EU Method C.8	Earthworm	NOEC = 550 mg/kg after 14 days
Polydimethylsiloxane	--	--	No data available
Tributyl phosphate	Literature	<i>T. urticae</i>	NOEC = 2000 mg/kg

12.2 Persistence and degradability



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Biodegradation	Test Method	Results
Bis(2-ethylhexyl) sebacate	OECD 301B	Readily biodegradable: 84.6% biodegradation after 28 days
Polydimethylsiloxane	--	No data available
Tributyl phosphate	OECD 301C	Readily biodegradable: 77.1% biodegradation after 28 days

12.3 Bioaccumulative potential

Bioconcentration Factor (BCF)	Results
Bis(2-ethylhexyl) sebacate	BCF = 27
Partition Coefficient	Results
Bis(2-ethylhexyl) sebacate	log P _{ow} = 10.08
Polydimethylsiloxane	No data available
Tributyl phosphate	log P _{ow} = 4.00

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Chemical	Results
Bis(2-ethylhexyl) sebacate	This substance is not PBT and vPvB.
Polydimethylsiloxane	No chemical assessment available
Tributyl phosphate	This substance is not PBT and vPvB.

12.6 Other adverse effects

No further information is available

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:

UN Proper shipping name:

Transport hazard class:



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Packing group:

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

UN3082

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TRIBUTYL PHOSPHATE)

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III

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)

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.

International Carriage of Dangerous Goods by Inland Waterways (ADN)

UN Number:

UN Proper shipping name:

Transport hazard class:

Packing group:

MARPOL73/78 and IBC Code:

Emergency schedules (EmS):

Special provisions:

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

UN3082

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TRIBUTYL PHOSPHATE)

9

III

P

F-A, S-F

274; 335; 375; 601

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:

UN Proper shipping name:

Transport hazard class:

Packing group:

Special provisions:

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

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ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TRIBUTYL PHOSPHATE)

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III

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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:

UN Proper shipping name:

Transport hazard class:

Packing group:

Special provisions:

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

UN3082

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TRIBUTYL PHOSPHATE)

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III

274; 335; 375; 601

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)

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

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.

International Maritime Dangerous Goods Code (IMDG Code)

UN Number:

UN Proper shipping name:

Transport hazard class:

Packing group:

MARPOL73/78 and IBC Code:

Emergency schedules (EmS):

Special provisions:

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

UN3082

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TRIBUTYL PHOSPHATE)

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III

P

F-A, S-F

274; 335; 969

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



SAFETY DATA SHEET

RADCOLUBE® SBR-1

MIL-PRF-46176B BRAKE FLUID, SILICONE, AUTOMOTIVE, ALL-WEATHER, OPERATIONAL AND PRESERVATIVE

Issue Date: 17 January
2012
Revision
Date: 30 March
2018
Revision: 5.0

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.

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

Hazardous categories for this product are:

Acute =	Chronic =	Fire =	Pressure =	Reactive =
Yes	Yes	No	No	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:

17 January 2012

Safety Data Sheet Revision Date:

9 May 2018

Revision Number:



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5.0

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 PROCESS. 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, 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.

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Toxicological References

"Bis(2-ethylhexyl) sebacate." *Registration Dossier - ECHA*. European Chemicals Agency, [no date]. Web. 23 Jun. 2017.
"Tributyl phosphate." *Registration Dossier - ECHA*. European Chemicals Agency, [no date]. Web. 23 Jun. 2017.
Globally Harmonized System of Classification and Labelling of Chemicals: (GHS). 6th ed. New York: United Nations, 2015. Print.

Definitions

ACGIH

American Conference of Governmental Industrial Hygienists

Aquatic Chronic 2

Aquatic toxicity, chronic hazards, category 2

EPA OTS 798.2650

United States Environmental Protection Agency Test Guideline 798.2650

EPA OTS 798.3300

United States Environmental Protection Agency Test Guideline 798.3300

EPA OTS 798.4100

United States Environmental Protection Agency Test Guideline 798.4100

EPA OTS 798.4700

United States Environmental Protection Agency Test Guideline 798.4700

EPA OTS 798.4900

United States Environmental Protection Agency Test Guideline 798.4900

Eye Irrit. 2

See *Eye irritation, category 2 definition*.

Eye irritation, category 2

Potential for reversible eye irritation within 21 days in animal studies.

HMIS

Hazardous Materials Identification System

LC₅₀

Lethal concentration that causes 50% death in test population.

LD₅₀

Lethal dose that causes 50% death in test population.

NFPA

National Fire Protection Association

NIOSH

National Institute for Occupational Safety and Health

NOEL

No observable effect level

OECD

Organisation for Economic Co-operation and Development

OECD 201

OECD Guideline 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test

OECD 202

OECD Guideline 202: Daphnia sp. Acute Immobilisation Test

OECD 203

OECD Guideline 203: Fish, Acute Toxicity Test

OECD 301B

OECD Guideline 301B: Ready Biodegradability CO₂ Evolution (Modified Sturm Test)

OECD 301C

OECD Guideline 301C: Ready Biodegradability MITI (Ministry of International Trade and Industry, Japan)



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OECD 403

OECD Guideline 403: Acute Inhalation Toxicity

OECD 404

OECD Guideline 404: Acute Dermal Irritation/Corrosion

OECD 405

OECD Guideline 405: Acute Eye Irritation/Corrosion Test

OECD 406

OECD Guideline 406: Skin Sensitization Test

OECD 407

OECD Guideline 407: Repeated Dose 28-day Oral Toxicity Study in Rodents

OECD 414

OECD Guideline 414: Prenatal Development Toxicity Study

OECD 415

OECD Guideline 415: One-Generation Reproduction Toxicity Study

OECD 473

OECD Guideline 473: In Vitro Mammalian Chromosomal Aberration Test

OSHA

United States Department of Labor Occupational Safety and Health Administration

PBT

Persistence Bioaccumulation and Toxicity

PEL

Permissible exposure limit

Skin Irrit. 2

See Skin irritation, Category 2 for definition.

Skin Irrit. 2

See Skin corrosion/irritation, Category 2 for definition.

Skin irritation, Category 2

Inflammation, alopecia (limited area), hyperkeratosis, hyperplasia, and scaling that fully reverses after 14 day in animal studies.

TLV

Threshold limit value

vPvB

Very persistent and very bioaccumulative