

# SAFETY DATA SHEET – RED LINE RL-600 BRAKE FLUID

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## 1. IDENTIFICATION

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### 1.1. PRODUCT IDENTIFIER USED ON LABEL:

1.1.1. RED LINE RL-600 BRAKE FLUID

### 1.2. OTHER MEANS OF IDENTIFICATION:

1.2.1. DOT-4 FULL SYNTHETIC BRAKE FLUID

1.2.2. Part #: 90402

### 1.3. RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE;

1.3.1. DOT-4 BRAKE FLUID

1.3.2. NO OTHER USES RECOMMENDED

### 1.4. NAME, ADDRESS, AND TELEPHONE NUMBER OF THE CHEMICAL MANUFACTURE R, IMPORTER, OR OTHER RESPONSIBLE PARTY:

1.4.1.

#### **RED LINE SYNTHETIC OIL CORP**

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6100 EGRET COURT  
BENICIA, CA 94510  
United States of America

#### **Product Information**

Technical Information: +17077456100

### 1.5. EMERGENCY PHONE NUMBER:

1.5.1.

TRANSPORT EMERGENCY CAL (+1)7074000215

## 2. HAZARD(S) IDENTIFICATION

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### 2.1. CLASSIFICATION OF THE CHEMICAL IN ACCORDANCE WITH PARAGRAPH (d) of §1910.1200:

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- 2.1.1. Aspiration Toxic Category 1
- 2.1.2. Skin Irritation Category 2
- 2.1.3. Eye Irritation Category 2
- 2.1.4. Aquatic Chronic Toxicity Category 3

2.2. **Signal Word:**

- 2.2.1. WARNING

2.3. **Symbol:**



2.4. **Hazard Statements:**

- 2.4.1. May be Fatal if swallowed and enters airways.
- 2.4.2. Causes skin irritation.
- 2.4.3. Causes serious eye irritation.
- 2.4.4. Harmful to aquatic life with long lasting effects.

2.5. **Precautionary Statements:**

2.5.1. Prevention:

- 2.5.1.1. Wear protective gloves.
- 2.5.1.2. Wash thoroughly after handling.
- 2.5.1.3. Wear eye protection/face protection.

2.5.2. Response:

- 2.5.2.1. If swallowed: immediately call a poison center or doctor.
- 2.5.2.2. Do NOT induce vomiting.
- 2.5.2.3. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- 2.5.2.4. If on skin: wash with plenty of water, if irritation or rash occurs, get medical advice/attention. Take off contaminated clothing and wash it before reuse.

2.5.3. Storage:

- 2.5.3.1. Store locked up.

2.5.4. Disposal:

- 2.5.4.1. Dispose of contents/container in accordance with local/regional/national/international regulations.

## 3. Composition/ information on ingredients

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3.1. **The chemical name and concentration (exact percentage) or concentration ranges of all ingredients which are classified as health hazards in accordance with paragraph (d) of §1910.1200**

3.1.1.

COMPONENTS	CAS Number	EU Number	Concentration (%)	Hazard Statements (see Section 16)

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COMPONENTS	CAS Number	EU Number	Concentration (%)	Hazard Statements (see Section 16)
Triethylene glycol monoethyl ether borate ester	30989-05-0	250-418-4	80-90	
2-aminoethanol; ethanolamine	141-43-5	205-483-3	1-5	H302, H312, H314, H332, H335, H412
2,6-Di-tert-butyl-pcresol (BHT)	128-37-0	204-881-4	<1	H400, H410

## 4. FIRST AID MEASURES

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### 4.1.

<b>Skin:</b>	Wash with plenty of water, if irritation or rash occurs, get medical advice/attention. Take off contaminated clothing and wash it before reuse.
<b>Eye:</b>	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.
<b>Inhalation:</b>	Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell
<b>Ingestion:</b>	If ingested, do not induce vomiting. Call a physician.

## 5. FIRE FIGHTING MEASURES

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5.1. **Flash Point:** 295°F (146.1°C)

5.2. **Protective Equipment/Fire Fighting Instructions:**

5.2.1. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

5.3. **Extinguishing Media:**

5.3.1. Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

5.4. **Special Firefighting Procedures:**

5.4.1. Cool exposed containers with water spray.

5.5. **Unusual Fire and Explosion Hazards:**

5.5.1. Pressure increase in over heated closed containers. Cool containers with water spray.

## 6. ACCIDENTAL RELEASE MEASURES

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6.1. **Spill Procedures:**

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6.1.1. Remove ignition sources. Recover Liquid. Add absorbent to spill area. Ventilate confined spaces. Advise authorities if product enters sewers, etc.

## 6.2. Waste Disposal:

6.2.1. Assure conformity with applicable disposal regulations. Dispose of absorbed material at approved waste site

## 6.3. Precautionary Measures:

6.3.1. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Wash thoroughly after handling.

6.3.2. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

## 7. HANDLING AND STORAGE

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### 7.1. Handling:

7.1.1. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum re-conditioner or disposed of properly.

### 7.2. Storage:

7.2.1. Keep container closed when not in use. Do not store with strong oxidizing agents. Do not store at elevated temperatures.

7.2.2. Store in the following material (s): Carbon steel. Stainless steel. Phenolic lined steel drums. Do not store in: Aluminum. Copper. Galvanized iron. Galvanized steel.

7.2.3. Shelf life: Use within 24 months.

7.2.4. Storage temperature: 10-35°C

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

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### 8.1. Component Exposure Limits:

#### 8.1.1. BRAKE FLUID 5mg/m<sup>3</sup> (oil mist) ACGIH TLV OSHA PEL

COMPONENTS	ACGIH TLV	OSHA PEL
Triethylene glycol monoethyl ether borate ester	2mg/m <sup>3</sup> TWA	
2-aminoethanol; ethanolamine	3 PPM TWA	6 mg/m <sup>3</sup> , 3ppm
2,6-Di-tert-butyl-pcresol (BHT)	2 mg/m <sup>3</sup> TWA	

### 8.2. Engineering Controls:

8.2.1. Ventilate as needed to comply with exposure limit

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## 8.3. Eye Protection:

8.3.1. Use goggles/face shield to avoid eye contact

## 8.4. Glove Protection:

8.4.1. Use impervious gloves to avoid repeated/prolonged skin contact.

## 8.5. Work/Hygienic Practices:

8.5.1. If clothing becomes contaminated, change to fresh clean clothing. Do not wear until thoroughly laundered.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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9.1. <b>Appearance/Odor:</b>	Clear to yellow liquid with ether odor.	9.2. <b>Odor Threshold:</b>	No data available
9.3. <b>pH:</b>	7.2	9.4. <b>Boiling Point:</b>	306°C
9.5. <b>Melting Point:</b>	No data available	9.6. <b>Solubility (H<sub>2</sub>O):</b>	100% @ 20°C
9.7. <b>Specific Gravity:</b>	1.080 @ 15.6°C	9.8. <b>Density:</b>	9.013 lbs/gal
9.9. <b>Octanol/H<sub>2</sub>O Coeff.:</b>	No data available	9.10. <b>Evaporation Rate (BUAC=1):</b>	0.01
9.11. <b>Molecular Weight:</b>	No data available	9.12. <b>Decomposition Temp:</b>	No data available
9.13. <b>Auto Ignition:</b>	No data available	9.14. <b>Lower Flammability Limit:</b>	No data available
9.15. <b>Flash Point:</b>	295°F (146.1°C)	9.16. <b>Upper Flammability Limit:</b>	No data available
9.17. <b>Vapor Density (Air=1):</b>	10	9.18. <b>Vapor Pressure:</b>	<1 kPa/ @ 20°C
9.19. <b>VOC:</b>	No data available	9.20. <b>Flammability Class:</b>	Not classified
9.21. <b>Viscosity @ 40°C</b>	9.5cSt (9.5 mm <sup>2</sup> /s)	9.22. <b>Viscosity @ 100°C</b>	2cSt (2 mm <sup>2</sup> /s)

## 10. STABILITY AND REACTIVITY

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### 10.1. Reactivity:

10.1.1. Material does not pose a significant reactivity hazard.

### 10.2. Chemical Stability:

10.2.1. Stable

### 10.3. Incompatibility/Conditions to avoid:

10.3.1. Avoid strong oxidants, strong acids, strong bases.

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## 10.4. Possibility of Hazardous Reactions:

10.4.1. Will not undergo hazardous polymerization.

## 10.5. Hazardous Decomposition Products:

10.5.1. Can include and are not limited to: Aldehydes, ketones, Organic acids.

# 11. TOXICOLOGY INFORMATION

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## 11.1. Likely Routes of Exposure:

11.1.1. Ingestion, Inhalation, Eye contact, Skin contact.

## 11.2. Acute Effects:

11.2.1. Inhalation: Expected to be low inhalation hazard.

11.2.2. Eye Contact: Causes serious eye irritation.

11.2.3. Skin Contact: Causes skin irritation

11.2.4. Ingestion: May be fatal if swallowed and enters airways.

## 11.3. Component Data/ Analysis

COMPONENTS	Oral (LD50) (Rat)	Inhalation (LC50) (Rat)	Dermal (LD50) (Rabbit)
Triethylene glycol monoethyl ether borate ester	>5000 mg/kg	No data available	>2000 mg/kg
2-aminoethanol; ethanolamine	>500 mg/kg	>1.48 mg/l Estimated	1025 mg/kg

## 11.4. Sensitization:

11.4.1. None known.

## 11.5. Carcinogenicity:

11.5.1. None greater than 0.1%.

## 11.6. Mutagenicity:

11.6.1. None known.

## 11.7. Reproductive Toxicity:

11.7.1. None known.

## 11.8. Teratogenicity:

11.8.1. None known.

# 12. ECOLOGICAL INFORMATION

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## 12.1. Toxicity:

12.1.1. Triethylene glycol monomethyl ether borate ester:

12.1.1.1. Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/l in most sensitive species).

12.1.1.2. **Fish Acute & Prolonged Toxicity:** LC50 Oncorhynchus mykiss (rainbow trout), semi-static test, 96 h: 590 mg/l

12.1.1.3. **Aquatic invertebrate Acute Toxicity:** EC50, Daphnia magna (water flea), static test, 48 h, immobilization: >1000 mg/l

12.1.1.4. **Aquatic Plant Toxicity:** EC50, alga Scenedesmus sp., static test, Growth rate inhibition, 96 h: 430 mg/l

12.1.2. 2-Aminoethanol; ethanolamine:

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12.1.2.1. Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/l in the most sensitive species).

12.1.2.2. **Fish Acute & Prolonged Toxicity:** LC50, Cyprinus carpio (carp), semi-static test, 96 h: 349 mg/l

12.1.2.3. **Aquatic invertebrate Acute Toxicity:** EC50, Daphnia magna (water flea), static test, 48 h, immobilization: 65 mg/l

12.1.2.4. **Aquatic Plant Toxicity:** ErC50, Pseudokirchneriella subcapitata (green algae), Growth rate inhibition, 72 h: 2.5 mg/l

12.1.2.5. **Toxicity to Micro-organisms:** EC50, activated sludge: >1000 mg/l

12.1.2.6. **Fish Chronic Toxicity Value (ChV):** Oryzias latipes (Orange-red killifish), 30 d, Other, NOEC:1.2 mg/l, LOEC:3.6 mg/l

12.1.2.7. **Aquatic Invertebrates Chronic Toxicity Value:** Daphnia magna (Water flea), 21 d, number of offspring, NOEC: 0.85 mg/l

## 12.1.3. 2,6-Di-tert-butyl-pcresol (BHT)

12.1.3.1. Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in the most sensitive species).

12.1.3.2. **Aquatic Invertebrate Acute Toxicity:** EC50, Daphnia magna (Water flea), static test, 48 h, immobilization: 0.48 mg/l

12.1.3.3. **Aquatic Invertebrates Chronic Toxicity Value:** Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, NOEC: 0.07 mg/l

## 12.2. Persistence and Degradability:

### 12.2.1. Triethylene glycol monomethyl ether borate ester:

12.2.1.1. Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

#### 12.2.1.2. OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
22-26%	28 d	Similar to OECD 301B Test.	Fail

### 12.2.2. 2-Aminoethanol; ethanolamine:

12.2.2.1. Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

#### 12.2.2.2. OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
>90%	21 d	OECD 301A Test	Pass

### 12.2.3. 2,6-Di-tert-butyl-pcresol (BHT)

12.2.3.1. Material is not readily biodegradable according to OECD/EEC guidelines.

#### 1.1.1.1. OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
4.5%	28 d	OECD 301C Test.	Not applicable

## 12.3. Bioaccumulative Potential:

### 12.3.1. Triethylene glycol monomethyl ether borate ester:

12.3.1.1. Bioaccumulation: Based on information for component(s): Bioconcentration potential is low (BCF<100 or Log Pow <3).

12.3.1.2. Partition coefficient, n-octanol/water (log Pow): <3

### 12.3.2. 2-Aminoethanol; ethanolamine:

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12.3.2.1. Bioaccumulation: Bioconcentration potential is low (BCF<100 or Log Pow <3).

12.3.2.2. Partition coefficient, n-octanol/water (log Pow): -1.91 measured.

12.3.3. 2,6-Di-tert-butyl-p-cresol (BHT)

12.3.3.1. Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

12.3.3.2. Partition coefficient, n-octanol/water (log Pow): 4.17 - 5.10 Estimated.

12.3.3.3. **Bioconcentration Factor (BCF)**: 598.4; Fish; Estimated.

## 12.4. Mobility in Soil:

12.4.1. Triethylene glycol monomethyl ether borate ester:

12.4.1.1. **Mobility in Soil**: No relevant data found.

12.4.2. 2-Aminoethanol; ethanolamine:

12.4.2.1. **Mobility in Soil**: Potential for mobility in soil is very high (Koc between 0-50).

12.4.2.2. **Partition coefficient, soil organic carbon/water (Koc)**: 1.17 Estimated.

12.4.2.3. **Henry's law Constant (H)**: 3.7E-05 Pa\*m<sup>3</sup>/mole. Estimated.

12.4.3. 2,6-Di-tert-butyl-p-cresol (BHT)

12.4.3.1. **Mobility in soil**: Expected to be relatively immobile in soil (Koc > 5000).

12.4.3.2. **Partition coefficient, soil organic carbon/water (Koc)**: > 5,000 Estimated.

12.4.3.3. **Henry's Law Constant (H)**: 2.49E-03 atm\*m<sup>3</sup>/mole Estimated.

## 12.5. Results of PBT and vPvB assessment:

12.5.1. Triethylene glycol monomethyl ether borate ester:

12.5.1.1. This has not been assessed for persistence, bioaccumulation and toxicity (PBT).

12.5.2. 2-Aminoethanol; ethanolamine:

12.5.2.1. This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.5.3. 2,6-Di-tert-butyl-p-cresol (BHT)

12.5.3.1. This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

# 12 DISPOSAL CONSIDERATIONS

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## 12.1 Waste Disposal:

12.1.1 Assure conformity with applicable disposal regulations. Dispose of absorbed material at approved waste site.

# 13 TRANSPORTATION INFORMATION

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**The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.**

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## 13.1 ROAD AND RAIL

13.1.1 DOT: NOT REGULATED

## 13.2 VESSEL

13.2.1 IMDG: NOT REGULATED

## 13.3 AIR

13.3.1 IATA: NOT REGULATED



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## 14 REGULATORY INFORMATION

### 14.1 TSCA Inventory

14.1.1 This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

### 14.2 SARA 302/304 Emergency Planning and Notification

14.2.1 No components identified.

### 14.3 SARA 311/312 Hazard Identification

14.3.1 Not listed.

### 14.4 SARA 313 Toxic Chemical Notification and Release Reporting

14.4.1 : This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic substance) of any chemical substances listed under SARA Section 313

### 14.5 CERCLA

14.5.1 No components identified.

### 14.6 Clean Water Act (CWA)

14.6.1 This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

### 14.7 California Proposition 65:

14.7.1 WARNING: This product does contain chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

### 14.8 New Jersey Right-to-Know Label

14.8.1 Petroleum Oil

14.8.2 <1.5% Monoethanolamine

## 15 OTHER INFORMATION

### 15.1

HAZARD RANKINGS			
HMIS		NFPA	
HEALTH HAZARD	3	HEALTH HAZARD	3
FIRE HAZARD	1	FIRE HAZARD	1
PHYSICAL HAZARD	0	INSTABILITY/REACTIVITY	0
Personal Protection	B		

Components Hazard Statements	
H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H312	May cause an allergic skin reaction.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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15.2 **Date of preparation:** 10/24/2014

15.3 **MANUFACTURER DISCLAIMER:**

15.3.1 *The data presented herein is based upon tests and information, which we believe to be reliable. However, users should make their own investigations to determine the suitability of the information for their particular purpose.*