

# MATERIAL SAFETY DATA SHEET

## SECTION I: IDENTITY

**Product/Material Name:** Castrol GT-LMA Brake Fluid  
**Chemical Name:** Mixture  
**Chemical Family/Classification:** Glycol ether  
**Molecular Weight:** NA  
**Material Use:** Brake Fluid

**Chemical Formula:** NA

### HMIS HAZARD RATING:

[0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe]

Health: 2  
Flammability: 1  
Reactivity: 0

### WARNING STATEMENTS (if Applicable):

CAUTION! MAY CAUSE EYE IRRITATION.

### MANUFACTURER'S/ SUPPLIER NAME & ADDRESS:

In the US:  
BP Lubricants USA Inc.  
1500 Valley Road  
Wayne, NJ USA 07474  
Telephone: (973) 633-2200  
Telecopier: (973) 633-7475

In Canada:  
Castrol Canada Inc.  
3660 Lakeshore Blvd  
Toronto, Ontario M8W 1P2  
Telephone: (416) 252-5511  
Telecopier: (416) 252-1774

In Latin America:  
Castrol Latin America Lubricants  
3750 NW 87<sup>th</sup> Avenue Suite 600  
Miami, FL USA 33178  
Telephone: (305) 714-2640  
Telecopier: (786) 437-6380

**IN THE EVENT OF AN EMERGENCY PLEASE CALL:** BP Emergency Response Center 1-800-321-8642

**Date Prepared/Updated:** 12/10/2004

**Preparer:** Regulatory, Environmental, Safety Department  
Telephone: (973) 633-2200

## SECTION II: PRODUCT/HAZARDOUS INGREDIENT INFORMATION

INGREDIENTS - CHEMICAL/Common Name	EXPOSURE LIMITS-TLV	LD <sub>50</sub>	LC <sub>50</sub>	%
Mixed glycol ethers, glycol ether borate esters, glycol derivatives, alkylamines and alkyl aromatic.	ND	Oral, rats: > 5 g/kg Dermal, rabbits: > 2 g/kg.	ND	60-100

### NOTE:

Product contains no materials currently classified as carcinogenic per the Annual Report of the National Toxicology Program [NTP], OSHA Hazard Communication Standard or the International Agency for Research on Cancer [IARC, Groups 1, 2A or 2B].

**SECTION III: FIRST AID MEASURES****Signs/Symptoms:**

Eyes - Irritation, redness, swelling, mucous discharge.  
Ingestion - Gastrointestinal discomfort, nausea, vomiting, lethargy, diarrhea.

**Eye contact:** Flush with clear water for at least 15 minutes or until any irritation subsides. If irritation persists, seek medical attention.

**Skin contact:** Remove contaminated clothing and wash before reuse. Wipe excess material from skin. Wash exposed area with soap and water.

**Inhalation:** If irritation or drowsiness occur, move the person to fresh air. Administer respiratory assistance if breathing is difficult or stops; Consult a physician.

**Ingestion:** Give plenty of water or other mild drinkable fluids and call a physician immediately. Do not induce vomiting without express consent of medical personnel.

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**SECTION IV: HEALTH HAZARD DATA****Exposure Limits:**

No exposure limits established for product.

**PRIMARY ROUTES OF ENTRY:**

Eye Contact  
 Skin Contact  
 Skin Absorption  
 Inhalation (Acute)  
 Inhalation (Chronic)  
 Ingestion

**EFFECTS OF EXPOSURE****Acute -**

**Eyes:** May cause eye irritation and corneal injury.

**Skin:** May cause skin irritation after prolonged and repeated exposure, or if skin is scratched or cut. May be absorbed via skin exposure

**Respiratory system:** Product is not toxic by inhalation. Minimal vapors are expected through normal usage.

**Ingestion:** Ingestion of incidental amounts exhibit low toxicity. Ingestion of larger amounts can cause injury, including CNS disturbances as well as other health effects

When evaluated separately, some components of this product have produced the following effects via ingestion of large doses:

- kidney, liver, gastrointestinal, testicular and central nervous system effects
- bladder stones
- vomiting
- fetal toxicity and mutagenicity

**Chronic -** No available data.

**Medical Conditions Generally Aggravated by Exposure:** Pre-existing skin disorders.

**TOXICOLOGY DATA (Product)****Acute Data (Median Lethal Dose - species)**

**Oral LD<sub>50</sub>** - rat: > 5 g/kg

**Dermal LD<sub>50</sub>** - rabbit: > 2 g/kg

**Inhalation LC<sub>50</sub>** - rat: ND

**Irritancy Data**

**Eye irritation** - rabbit: ND

**Skin irritation** - rabbit: ND

**Sensitization** - guinea pig: ND

**Other:** A glycol ether component of this product was found to cause testicular degeneration and atrophy in male laboratory animals after the administration of large doses by ingestion for a duration of 90 days. A similar study to evaluate toxicity by dermal exposure did not produce corresponding findings.

No data regarding presence of carcinogenicity, respiratory toxicity, sensitizing ability or synergistic substances.

**SECTION V: EMPLOYEE PROTECTION****Ventilation:**

No special ventilation is usually necessary. However, if operating conditions may create high airborne concentrations of this material, special or local ventilation may be needed.

**PERSONAL PROTECTIVE EQUIPMENT**

**Respiratory Protection:** None required under normal use. If exposure is expected to exceed occupational exposure limits, use a NIOSH-approved respirator to prevent overexposure. In accordance with 29 CFR 1910.134, use either an atmosphere supplying respirator or an air-purifying respirator for organic vapors and particulates.

**Eye:** Safety goggles recommended.

**Gloves (specify):** Wear impervious type, such as neoprene, nitrile, PVC to minimize skin contact.

**Clothing:** No special requirement; Normal work clothing. A coverall or apron may be used to minimize skin contact.

**Footwear:** No special requirement.

**Other:** NA

**Work/Hygienic Practices:** Avoid prolonged and repeated skin contact. Do not wear contaminated clothing; Launder before reuse or discard. Wash thoroughly with soap and water after handling.

**Storage/Handling:** Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants. Avoid breathing mist. Maintain adequate ventilation.

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**SECTION VI: PHYSICAL/CHEMICAL CHARACTERISTICS**

**Boiling Point:** >450 F (>232 C)

**Specific Gravity (Water=1):** 1.05 @ 60 F

**Vapor Pressure (mm.Hg. @ 25 C):** ND

**Vapor Density (Air=1):** ND

**Percent Volatiles:** 100

**Evaporation Rate (BuAc=1):** ND

**Solubility in Water:** Complete

**Freezing Point:** <-58 F (<-50 C)

**pH-Value:** 25% in water - 8.6

**Viscosity @ 100 C, cSt.:** 2.2

**Odor Threshold:** ND

**Coefficient of Water/Oil Distribution:** ND

**Appearance, Odor & Physical State:** Clear, yellow liquid; mild odor

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**SECTION VII: FIRE AND EXPLOSION DATA**

**FLAMMABILITY** Yes [X] No [ ] NFPA Class IIIB material - Combustible liquid

**Flash Point (COC):** >250 F (>121 C)

**Fire Point (COC):** > 270 F (>132 C)

**Autoignition Temperature:** 590 F

**Flammability limits in Air, % Vol.:** Upper - ND

Lower - ND

**Extinguishing Media:**

CO<sub>2</sub>, dry chemical, foam and water fog. Do not use water jets.

**Special Firefighting Procedures/Unusual and Explosion Hazards:**

Material must be preheated to burn. Do not enter confined areas without full protective equipment, including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

**EXPLOSION DATA**

**Sensitivity to Mechanical Impact:** NA

**Sensitivity to Static Discharge:** NA

**SECTION VIII: REACTIVITY**

**Stability:** Stable at ambient temperatures

**Hazardous Polymerization:** Will not occur.

**Conditions and Materials to Avoid (Incompatibilities):**

Heat, open flame and oxidizing materials.

**Hazardous Combustion or Decomposition Products:**

Smoke, fumes, oxides of carbon.

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**SECTION IX: ENVIRONMENTAL PROTECTION**

**CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300, 24 hrs. for U.S. transportation related spills, leaks, fire, exposure or accident.**

**CANUTEC EMERGENCY PHONE NUMBER: (613) 996-6666, 24 hrs. for Canadian transportation related spills, leaks, fire, exposure or accident.**

**Spill or Leak Procedures:**

Product may burn but is not readily ignitable. Use best engineering practices when attempting cleanup of a large spill.

**Large spills** - Wear respirator and protective clothing as appropriate. Stop source of leak if possible. Prevent entry into water sources; Product is water-soluble. Dike and contain spill. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an inert absorbent such as clay, sand or other suitable materials; Store and dispose of properly. Where feasible and appropriate, remove contaminated soil.

**Small spills** - Soak up spill with an inert absorbent such as clay, sand or other suitable materials; Store in a closed container and dispose of properly.

Regulatory spill reporting requirements may apply; Contact governmental agency or legal counsel for advice.

**Waste Disposal Method:**

If discarded as supplied, material does not meet RCRA characteristic definition of ignitability, corrosivity or reactivity and is not listed in 40 CFR 261.33. The toxicity characteristic has not been evaluated. Under RCRA, the applicable hazardous waste classification must be evaluated prior to disposal of the material. Use of the product, processing or contamination may render the resulting material hazardous.

All recovered material should be packaged, labeled, transported and disposed of or reclaimed in accordance with governmental regulations regarding air pollution, water pollution or health.

**CAUTION:** Improper disposal or reuse of the empty container may be hazardous and illegal. Cutting or welding of empty containers may cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place. Refer to applicable governmental regulations.

**SECTION X: REGULATORY INFORMATION**

**TRANSPORTATION**

**Special Shipping Information/DOT Proper Shipping Name:** Not regulated.

**CHEMICAL CONTROL REGULATIONS:**

**TSCA Status:** All components of this material appear on the Toxic Substance Control Act Chemical Substances Inventory.

**Canadian Workplace Hazardous Material Identification System (WHMIS) Classification:**

Material is a controlled product.

- Class A - Compressed Gas
- Class B-1 - Flammable Gases
- Class B-2 - Flammable Liquids
- Class B-3 - Combustible Liquids
- Class B-4 - Flammable Solids
- Class B-5 - Flammable Aerosols
- Class B-6 - Reactive Flammable Materials
- Class C - Oxidizing Material
- Class D, Div. 1 - Materials Causing Immediate and Serious Toxic Effects
- Class D-1A - Very Toxic Material
- Class D-1B - Toxic Material
- Class D, Div. 2 - Materials Causing Other Toxic Effects
- Class D-2A - Very Toxic Materials
- Class D-2B - Toxic Materials
- Class D-3 - Biohazardous Infectious Material
- Class E - Corrosive Material
- Class F - Dangerously Reactive Material

**EPCRA (SARA Title III):**

**Section 302/304 Extremely Hazardous Substance:** NA

**CERCLA Section 102(a) Hazardous Substance:** NA

**Section 311 Hazard Category**

- Acute (immediate)
- Chronic (delayed)
- Fire
- Sudden Release of Pressure
- Reactive
- Not applicable

**Section 313 Toxic Release Inventory Chemical/Category:**

Glycol ethers, 60-100% (wt.) max.

**U.S. STATE RIGHT TO KNOW LAWS**

Specific chemical identity of some or all of the product's hazardous ingredients is held as confidential business information and is being withheld as permitted by OSHA (29 CFR 1910.1200), CEPA and various right to know laws.

**New Jersey Worker and Community Right to Know Act, N.J.A.C. 8:59-5 Labelling Information:** Brake fluid

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**NOTICE:**

The information presented herein is compiled from sources considered to be dependable, believed to be accurate to the best of BP Lubricants USA Inc knowledge, and offered in good faith for the purpose of hazard communication. Because product use is beyond our control, no warranty is given, expressed or implied. BP Lubricants USA Inc. cannot assume any liability for the use of information contained herein. To determine applicability or effect of any law or regulation with respect to the product, users should consult a legal advisor or appropriate governmental agency.

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