



## 1. Chemical product and company identification

<b>Product name</b>	Castrol GT LMA Brake Fluid
<b>MSDS #</b>	461439
<b>Code</b>	461439-US12
<b>Product use</b>	Brake Fluids. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Manufacturer</b>	BP Lubricants USA Inc. 1500 Valley Road Wayne, NJ 07470 Telephone: (973) 633-2200 Telecopier: (973) 633-7475
<b>EMERGENCY HEALTH INFORMATION:</b>	1 (800) 447-8735 Outside the US: +1 703-527-3887 (CHEMTREC)
<b>EMERGENCY SPILL INFORMATION:</b>	1 (800) 424-9300 CHEMTREC (USA)
<b>OTHER PRODUCT INFORMATION</b>	1 (866) 4 BP - MSDS (866-427-6737 Toll Free - North America) email: bpcares@bp.com

## 2. Composition/information on ingredients

Ingredient name	CAS #	%
2,2'-oxybisethanol (Diethylene glycol)	111-46-6	5 - 10
Poly(oxy-1,2-ethanediyl), $\alpha$ -butyl- $\omega$ -hydroxy-	9004-77-7	10 - 15
2-(2-butoxyethoxy)ethanol	112-34-5	1 - 5
di-isopropanolamine	110-97-4	1 - 5

## 3. Hazards identification

<b>Physical state</b>	Liquid.
<b>Color</b>	Yellow. Amber.
<b>Emergency overview</b>	WARNING!  HARMFUL IF SWALLOWED. INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS, AND NAUSEA, AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES EYE IRRITATION. CAUSES SKIN IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION.  Do not ingest. Avoid contact with eyes, skin and clothing. Do not breathe vapor or mist. Keep container closed. Use with adequate ventilation. Use only with adequate ventilation Wash thoroughly after handling.
<b>Routes of entry</b>	Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential health effects</b>	
<b>Eyes</b>	Causes eye irritation.
<b>Skin</b>	Causes skin irritation.

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**Inhalation**

May cause respiratory tract irritation. Inhalation causes headaches, dizziness, drowsiness, and nausea, and may lead to unconsciousness.

**Ingestion**

Harmful if swallowed.

**Medical conditions  
aggravated by over-  
exposure**

None identified.

See toxicological information (section 11).

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## 4. First aid measures

**Eye contact**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin contact**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Inhalation**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion**

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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## 5. Fire-fighting measures

**Flammability of the  
product**

May be combustible at high temperature.

**Flash point**

>125 °C (Closed cup) Pensky-Martens.

**Products of combustion**

These products are  
carbon oxides  
nitrogen oxides

**Unusual fire/explosion  
hazards**

This material is not explosive as defined by established regulatory criteria.

**Fire-fighting media and  
instructions**

In case of fire, use water fog, foam, dry chemicals, or carbon dioxide. Do not use water jet.

**Protective clothing (fire)**

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

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## 6. Accidental release measures

**Personal precautions**

Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (See Section: "Exposure controls/personal protection"). Follow all fire fighting procedures (See Section: "Fire-fighting measures").

**Environmental  
precautions and clean-up  
methods**

If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Avoid contact of spilled material with soil and prevent runoff entering surface waterways. See Section 13 for Waste Disposal Information.

**Personal protection in  
case of a large spill**

Chemical splash goggles. Chemical resistant protective suit. Boots. Chemical resistant gloves. Vapor respirator or a self-contained breathing apparatus. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

CAUTION: The protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are not known, or if concentrations exceed the protection limits of air-purifying respirator.

## 7. Handling and storage

<b>Handling</b>	Do not ingest. Avoid contact with skin and clothing. Avoid contact with eyes. Use only with adequate ventilation. Avoid breathing vapor or mist. Wash thoroughly after handling.
<b>Storage</b>	Keep container tightly closed. Keep container in a cool, well-ventilated area. Empty containers may contain harmful, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.

## 8. Exposure controls/personal protection

### Occupational exposure limits

<b>Ingredient name</b>	<b>Occupational exposure limits</b>
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2,2'-oxybisethanol (Diethylene glycol)	None assigned.
Poly(oxy-1,2-ethanediyl), $\alpha$ -butyl- $\omega$ -hydroxy-	None assigned.
2-(2-butoxyethoxy)ethanol	None assigned.
di-isopropanolamine	None assigned.

Some states may enforce more stringent exposure limits.

<b>Control Measures</b>	Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the work-station location.
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<b>Hygiene measures</b>	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
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### Personal protection

<b>Eyes</b>	Avoid contact with eyes. Chemical splash goggles.
<b>Skin and body</b>	Avoid contact with skin and clothing. Wear suitable protective clothing.
<b>Respiratory</b>	Use only with adequate ventilation. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable.
<b>Hands</b>	<p>Wear gloves that cannot be penetrated by chemicals or oil.</p> <p>Recommended: Nitrile gloves.</p> <p>The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.</p> <p>Consult your supervisor or S.O.P. for special handling directions</p>

[Consult local authorities for acceptable exposure limits.](#)

## 9. Physical and chemical properties

<b>Physical state</b>	Liquid.
<b>Color</b>	Yellow. Amber.
<b>Heat of combustion</b>	Not available.
<b>Boiling point / Range</b>	>260°C (>500°F)
<b>Density</b>	1000 kg/m <sup>3</sup> (1 g/cm <sup>3</sup> ) at 20°C
<b>Solubility</b>	Insoluble in water.
<b>Viscosity</b>	Kinematic: 15 to 17 mm <sup>2</sup> /s (15 to 17 cSt) at 20°C

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## 10. Stability and reactivity

Stability and reactivity	The product is stable.
Conditions to avoid	Not available.
Incompatibility with various substances	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization	Will not occur.

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## 11. Toxicological information

Acute toxicity	Ethylene glycol: Ingestion of ethylene glycol can cause metabolic acidosis, kidney damage, central nervous system depression, convulsions and death. The estimated human lethal dose is approximately 1 ml/kg (about 1/2 cup for an adult). Vapor from hot operations or an aerosol can cause eye and respiratory irritation. Birth defects were reported in laboratory animals fed ethylene glycol repeatedly in large amounts. Based on these studies, there may be a potential for birth defects following ingestion of ethylene glycol by pregnant women.
Chronic toxicity	
Carcinogenic effects	No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).
Mutagenic effects	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.
Reproductive effects	No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as a reproductive toxin.
Teratogenic effects	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

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## 12. Ecological information

### Ecotoxicity

No testing has been performed by the manufacturer.

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## 13. Disposal considerations

Waste information	Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Dispose of in accordance with all applicable local and national regulations.
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[Consult your local or regional authorities.](#)

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## 14. Transport information

Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO)

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## 15. Regulatory information

### U.S. Federal regulations

**United States inventory (TSCA 8b):** All components are listed or exempted.

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

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** Castrol GT LMA Brake Fluid: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

### SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	2-(2-butoxyethoxy)ethanol	112-34-5	0 - 2.99
Supplier notification	2-(2-butoxyethoxy)ethanol	112-34-5	0 - 2.99
	CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):: 2-(2-butoxyethoxy)ethanol;		

### State regulations

#### Massachusetts Substances

**Massachusetts RTK:** The following components are listed: DIISOPROPANOLAMINE

#### New Jersey Hazardous Substances

**New Jersey Hazardous Substances:** The following components are listed: GLYCOL ETHERS

#### Pennsylvania RTK Hazardous Substances

**Pennsylvania RTK:** The following components are listed: ETHANOL, 2,2'-OXYBIS-; GLYCOL ETHERS;2-PROPANOL, 1,1'-IMINOBIS-

**California Prop 65:** No products were found

### Inventories

**Canada inventory:** At least one component is not listed in DSL but all such components are listed in NDSL.

**Europe inventory:** All components are listed or exempted.

**Australia inventory (AICS):** Not determined.

**China inventory (IECSC):** All components are listed or exempted.

**Japan inventory (ENCS):** All components are listed or exempted.

**Korea inventory (KECI):** Not determined.

**Philippines inventory (PICCS):** All components are listed or exempted.

## 16. Other information

### Label requirements

WARNING!

HARMFUL IF SWALLOWED.  
INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS, AND NAUSEA, AND MAY LEAD TO UNCONSCIOUSNESS.  
CAUSES EYE IRRITATION.  
CAUSES SKIN IRRITATION.  
MAY CAUSE RESPIRATORY TRACT IRRITATION.

### HMIS® Rating :

Health \* 2  
Flammability 1  
Physical Hazard 0  
Personal protection X

**National Fire Protection Association (U.S.A.)**



### History

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## Notice to reader

*NOTICE : This Material Safety Data Sheet is based upon data considered to be accurate at the time of its preparation. Despite our efforts, it may not be up to date or applicable to the circumstances of any particular case. We are not responsible for any damage or injury resulting from abnormal use, from any failure to follow appropriate practices or from hazards inherent in the nature of the product.*