Material Safety Data Sheet

1. Product and company identification

Product name Castrol GT LMA Brake Fluid

MSDS # 461439

Historic MSDS #: 461439-US12

Code 461439-US65

Product use Brake fluids.
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Manufacturer
BP Lubricants USA Inc.
1500 Valley Road
Wayne, NJ 07470
Telephone: (973) 633-2200
Telecopier: (973) 633-7475

EMERGENCY HEALTH INFORMATION:
1 (800) 447-8735

Outside the US: +1 703-527-3887 (CHEMTREC)

EMERGENCY SPILL INFORMATION:
1 (800) 424-9300 CHEMTREC (USA)

OTHER PRODUCT INFORMATION
1 (866) 4 BP - MSDS
(866-427-6737 Toll Free - North America)
email: bpcares@bp.com

2. Hazards identification

Physical state Liquid.

Color Yellow. Amber.

Emergency overview DANGER !

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

Harmful or fatal if swallowed. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Routes of entry Dermal contact. Eye contact. Inhalation. Ingestion.

Potential health effects

Eyes Causes eye irritation.

Skin Causes skin irritation.

Inhalation Vapors may cause drowsiness and dizziness. Can cause central nervous system (CNS) depression. May cause respiratory tract irritation.

Ingestion Harmful or fatal if swallowed. Causes gastrointestinal irritation and diarrhea. Contains material which may cause damage to the following organs: liver and Kidneys.

See toxicological information (Section 11)

3. Composition/information on ingredients

Ingredient name	CAS #	%
2-(2-(2-butoxyethoxy)ethoxy)ethanol	143-22-6	10 - 15
Diethylene glycol; 2,2'-oxybisethanol	111-46-6	5 - 10
Di-isopropanolamine	110-97-4	1 - 5

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.

Skin contact
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention.

Inhalation
If inhaled, remove to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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.

5. Fire-fighting measures

Flash point
Closed cup: >125°C (>257°F) [Pensky-Martens.]

Fire/explosion hazards
In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media

Suitable
Use an extinguishing agent suitable for the surrounding fire.

Not suitable
Do not use water jet.

Fire-fighting procedures
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products
Combustion products may include the following:
carbon oxides (CO, CO_2) (carbon monoxide, carbon dioxide)
nitrogen oxides (NO, NO_2 etc.)

Protective clothing (fire)
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions
No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Large spill
Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling

Put on appropriate personal protective equipment (see Section 8). Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

Storage

Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Occupational exposure limits

This product does not have any assigned OELs.

Some states may enforce more stringent exposure limits.

Control Measures

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures

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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Personal protection

Eyes

Avoid contact with eyes. Safety glasses with side shields or chemical goggles.

Skin and body

Do not get on skin or clothing. Wear suitable protective clothing.

Respiratory

Use adequate ventilation. Do not breathe vapor or mist.

Hands

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.

Consult your supervisor or Standard Operating Procedure (S.O.P) for special handling instructions.

9. Physical and chemical properties

Physical state Liquid.

Color Yellow. Amber.

Flash point Closed cup: >125°C (>257°F) [Pensky-Martens.]

Density 1000 kg/m^3 (1 g/cm^3) at 20°C

pH [Conc. (% w/w): 79%]

Viscosity Kinematic: 15 to 17 mm^2/s (15 to 17 cSt) at 20°C

Boiling point / Range >260°C (>500°F)

Solubility insoluble in water.

10. Stability and reactivity

Stability and reactivity The product is stable.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.

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	Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Other Toxicity Data

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.

Potential chronic health effects

Carcinogenicity

No known significant effects or critical hazards.

12. Ecological information

Ecotoxicity

No testing has been performed by the manufacturer.

Persistence/degradability

Biodegradable

Other ecological information

Miscible in water.

13. Disposal considerations

Waste information

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

NOTE: The generator of waste has the responsibility for proper waste identification (based on characteristic(s) or listing), transportation and disposal

14. Transport information

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

15. Regulatory information

U.S. Federal Regulations

United States inventory (TSCA 8b)

All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Diethylene glycol; 2,2'-oxybisethanol; Di-isopropanolamine
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-(2-butoxyethoxy)ethoxy)ethanol	143-22-6	1 - 15
Supplier notification	2-(2-(2-butoxyethoxy)ethoxy)ethanol	143-22-6	1 - 15

CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4): CERCLA: Hazardous substances.: 2-(2-(2-butoxyethoxy)ethoxy)ethanol;

State regulations

Massachusetts Substances: The following components are listed: DIISOPROPANOLAMINE

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

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

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

Other regulations

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

REACH Status: For the REACH status of this product please consult your company contact, as identified in Section 1.

Australia inventory (AICS): At least one component is not listed.

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

Japan inventory (ENCS): At least one component is not listed.

Korea inventory (KECI): All components are listed or exempted.

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

16. Other information

Label requirements

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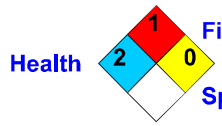
INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS.
MAY CAUSE RESPIRATORY TRACT IRRITATION.

HMIS® Rating :

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

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



History

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Prepared by Product Stewardship

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.