



# Safety Data Sheet

## SECTION 1 IDENTIFICATION OF THE HAZARDOUS CHEMICAL AND OF THE SUPPLIER

### Brake and Clutch Fluid DOT 3, 4

**Product Use:** Brake Fluid

**Product Number(s):** 510662, 510663

**Company Identification**

Chevron Malaysia Limited  
Level 3, Menara Milenium  
8, Jalan Damanlela, Bukit Damansara  
Kuala Lumpur 50490  
Malaysia

**Transportation Emergency Response**

Malaysia: 1800-88-3188

**Health Emergency**

Chevron Emergency & Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

**Product Information**

Product Information: 1800-88-3188

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:**

- Eye irritation: Category 2.
- Reproductive toxicant: Category 2.



**Signal Word:** Warning

**Health Hazards:**

- Causes serious eye irritation (H319).
- Suspected of damaging fertility or the unborn child (H361).

**PRECAUTIONARY STATEMENTS:**

**Prevention:**

- Obtain special instructions before use (P201).
- Do not handle until all safety precautions have been read and understood (P202).
- Wash thoroughly after handling (P264).
- Wear protective gloves, eye protection, and face protection (P280).
- Use personal protective equipment as required (P281).

**Response:**

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305+P351+P338).
- IF exposed or concerned: Get medical advice or attention (P308+P313).
- If eye irritation persists: Get medical advice or attention (P337+P313).

**Storage:**

- Store locked up (P405).

**Disposal:**

- Dispose of contents and container in accordance with applicable local, regional, national, and international regulations (P501).

**SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS OF HAZARDOUS CHEMICAL**

COMPONENTS	CAS NUMBER	AMOUNT
Triethylene glycol monobutyl ether	143-22-6	20 - < 30 %weight
Diethylene glycol	111-46-6	15 - < 25 %weight
Triethylene glycol monomethyl ether borate ester	30989-05-0	5 - 20 %weight
Polyethylene glycol monobutyl ether	9004-77-7	5 - 10 %weight
Diethylene glycol monobutyl ether	112-34-5	< 3 %weight
Diethylene glycol monomethyl ether	111-77-3	< 3 %weight

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

**Eye:** Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get immediate medical attention.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Most important symptoms and effects, both acute and delayed****IMMEDIATE HEALTH EFFECTS**

**Eye:** Contact with the eyes causes severe irritation. Symptoms may include pain, tearing, reddening, swelling and impaired vision.

**Skin:** High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled.

**DELAYED OR OTHER HEALTH EFFECTS:**

**Reproduction and Birth Defects:** Contains material that may cause adverse reproductive effects if swallowed based on animal data. See Section 11 for additional information. Risk depends on

duration and level of exposure.

### **Indication of any immediate medical attention and special treatment needed**

#### **Note to Physicians:**

In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

## **SECTION 5 FIRE FIGHTING MEASURES**

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

**Unusual Fire Hazards:** Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

#### **PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

## **SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures:** Observe all relevant local and international regulations. Eliminate all sources of ignition in vicinity of spilled material. Keep out unnecessary and unprotected personnel. Persons entering the contaminated area to correct the problem or to determine whether it is safe to resume normal activities must comply with all instructions in the Exposure Controls/Personal Protection section.

**Environmental Precautions:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater.

**Methods and Material For Containment and Cleaning Up:** Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil and dispose of in a manner consistent with applicable requirements. Place other contaminated materials in disposable containers and dispose of in a manner consistent with applicable requirements. Report spills to local authorities as appropriate or required.

## **SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed. Do not get in eyes, on skin, or on clothing. Do not get in eyes. Do not taste or swallow. Wash thoroughly after handling. Keep out of the reach of children.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations)

and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. 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 reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment (PPE). If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, refer to PPE information below.

Factors that affect PPE include, but are not limited to: properties of the chemical, other chemicals which may contact the same PPE, physical requirements (fit & sizing, cut/puncture protection, dexterity, thermal protection, etc.), and potential allergic reactions to the PPE material. It is the responsibility of the user to read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances. Refer to appropriate CEN standards.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.

**Skin Protection:** Wear chemical personal protective equipment (PPE) to prevent skin contact. Selection of chemical protective clothing should be performed by an Occupational Hygienist or Safety Professional and be based upon applicable standards (ASTM F739 or EN 374). Using chemical PPE depends upon operations conducted and may include chemical gloves, boots, chemical apron, chemical suit, and complete facial protection. **Refer to PPE manufacturers to obtain breakthrough time information to determine how long PPE can be used before it needs to be replaced.** Unless specific glove manufacturer data indicates otherwise, the below table is based upon available industry data to assist in the glove selection process and is intended to be used as reference only.

Chemical Glove Material	Thickness (mm)	Typical Breakthrough Time (minutes)
Butyl	0.7	120
Neoprene	0.75	30
Nitrile	0.8	30
Nitrile	0.11	5
Polyvinyl Chloride (PVC)	1.1	15
Viton Butyl	0.3	120

**Respiratory Protection:** Not required for identified conditions of use.

**Occupational Exposure Limits:** No applicable occupational exposure limits exist for this material or its components. Consult local authorities for appropriate values.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Amber

**Physical State:** Liquid

**Odor:** Faint or Mild

**Odor Threshold:** No data available

**pH:** 7.0 - 10.5

**Vapor Pressure:** No data available

**Relative Vapor Density:** No data available

**Boiling Point:** 210°C (410°F) (Minimum)

**Boiling Range:** No data available

**Solubility:** Soluble in water.

**Freezing Point:** No data available

**Melting Point:** <-50°C (-58°F)

**Particle Characteristics:** Not applicable

**Density:** 1.030 kg/l - @ 20°C (68°F) (Typical)

**Kinematic Viscosity:** 1.5 cSt - @ 100°C (212°F) (Minimum)

**Coefficient of Therm. Expansion / °F:** No data available

**Evaporation Rate:** No data available

**Decomposition temperature:** 300°C (572°F)

**Partition coefficient n-octanol/water (logarithmic value):** 1.5

#### **FLAMMABLE PROPERTIES:**

**Flashpoint:** (Pensky-Martens Closed Cup) > 100 °C (> 212 °F)

**Autoignition:** > 280 °C (> 536 °F)

**Flammability (Explosive) Limits (% by volume in air):** Lower: No data available Upper: No data available

### **SECTION 10 STABILITY AND REACTIVITY**

**Reactivity:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** Not applicable

**Hazardous Decomposition Products:** None known (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

### **SECTION 11 TOXICOLOGICAL INFORMATION**

#### **IMMEDIATE HEALTH EFFECTS**

**Eye Irritation:** This material causes serious eye irritation. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Skin Irritation:** The material is not considered a skin irritant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Skin Sensitization:** The material is not considered a skin sensitizer. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Dermal Toxicity:** The material is not considered a dermal toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Oral Toxicity:** The material is not considered an oral toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Acute Inhalation Toxicity:** The material is not considered an inhalation toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.  
**Acute Toxicity Estimate:** Not Determined

**Germ Cell Mutagenicity:** The material is not considered a mutagen. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Carcinogenicity:** The material is not considered a carcinogen. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Reproductive Toxicity:** This material is suspected of damaging fertility or the unborn child. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Specific Target Organ Toxicity - Single Exposure:** The material is not considered a target organ toxicant (single exposure). The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Specific Target Organ Toxicity - Repeated Exposure:** The material is not considered a target organ toxicant (repeated exposure). The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

**Aspiration Hazard:** The material is not considered an aspiration hazard.

#### **ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains diethylene glycol (DEG). The estimated oral lethal dose is about 50 cc (1.6 oz) for an adult human. DEG has caused the following effects in laboratory animals: liver abnormalities, kidney damage and blood abnormalities. It has been suggested as a cause of the following effects in humans: liver abnormalities, kidney damage, lung damage and central nervous system damage.

### **SECTION 12 ECOLOGICAL INFORMATION**

#### **ECOTOXICITY**

This material is not expected to be harmful to aquatic organisms.  
The product has not been tested. The statement has been derived from the properties of the individual components.

#### **MOBILITY**

No data available.

#### **PERSISTENCE AND DEGRADABILITY**

This material is expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

#### **POTENTIAL TO BIOACCUMULATE**

Bioconcentration Factor: No data available.  
Partition coefficient n-octanol/water (logarithmic value): 1.5

### **SECTION 13 DISPOSAL INFORMATION**

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations.

## SECTION 14 TRANSPORTATION INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**UN Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE UNITED NATIONS MODEL REGULATIONS/RECOMMENDATIONS

**IMO/IMDG Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:**  
Not applicable

## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

01-1=IARC Group 1  
01-2A=IARC Group 2A  
01-2B=IARC Group 2B

No components of this material were found on the regulatory lists above.

### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AIIIC (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (United States).

## SECTION 16 OTHER INFORMATION

### REVISION STATEMENT:

SECTION 02 - Precautionary Statements information was modified.  
SECTION 06 - Personal Precautions, Protective Equipment and Emergency Procedures information was modified.  
SECTION 08 - Respiratory Protection information was added.  
SECTION 08 - Respiratory Protection information was deleted.  
SECTION 09 - Physical/Chemical Properties information was modified.  
SECTION 14 - IMO Classification information was added.

**Revision Date:** April 29, 2025

### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental	IMO/IMDG - International Maritime Dangerous Goods

Industrial Hygienists	Code
API - American Petroleum Institute	SDS - Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

Prepared according to the Malaysia Industry Code of Practice on Chemicals Classification and Hazard Communication 2019 by Chevron.

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