



Safety Data Sheet

Brake Fluid DOT-4

Prepared according to: NOM-018-STPS-2015

Section 1: Product and Company Identification

Commercial Name of the Product: Brake Fluid DOT-4
Product Chemical Name: Polyglycol ether
Product Synonym: Brake fluid base
Product code: EPT-5300 Revision Date: 6/17/16 Revision No.: 14
Relevant identified uses of the product or mixture.
Recommended use: Brake fluid
Manufacturer: Raloy Lubricantes, S.A. de C.V.
Address: Av. del Convento N° 111, Parque Industrial Santiago Tianguistenco.
Estado de México, México, C.P. 52600
US Distributor
Fuchs Lubricants Co.
17050 Lathrop Avenue
Harvey, IL 60426
(708) 333-8900
(800) 255-3924 24 hrs Emergency

In the event of an accident or incident, immediate notice must be given:

SETIQ:  800 002 1400

PLANT:  713 135 1900

Website:  www.raloylubricantes.mx

e-mail:  atecnica@raloy.com.mx

Section 2: Identification of Hazard(s)

GHS CLASSIFICATION

Health hazards

The product is not classified as dangerous according to the Globally Harmonized System of Classification and Labeling of Chemical Products SGA/GHS and Standards NMX-R-019-SCFI-2011 and NOM 010-STPS-2014.

Word of warning

Attention

Pictograms:



IDENTIFICATION CODES AND THEIR INDICATIONS OF DANGER TO HEALTH

H302 Harmful if swallowed.
H318 Causes serious eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.

GENERAL PRECAUTIONARY ADVICE

P102 Keep out of reach of children.
P233 Keep container tightly closed.
P234 Keep only in the original container.
P264 Wash carefully after handling.
P273 Do not disperse in the environment.

Section 3: Composition/Information on Ingredients

Ingredients:

Component	Composition percentage	CAS #
Diethylene Glycol Monomethyl Ether	< 2	111-77-3
Diethylene Glycol	< 6	111-46-6
Triethylene Glycol Monomethyl Ether	> 25 a < 60	112-35-6
Tetraethylene Glycol Monomethyl Ether	> 6 a < 26	23783-42-8
Additives	<1.1	ICC

Section 4: First Aid

INHALATION: Place the injured person in fresh air, keep him/her warm and at rest, if breathing is irregular or stops, practice artificial respiration.

SKIN CONTACT: Remove contaminated clothing, wash with plenty of water for at least 10 minutes. Laundry before using it again.

EYE CONTACT: Remove contact lenses, if you have them and it is easy to do. Flush eyes with plenty of clean, cool water for at least 10 minutes, pulling the eyelids up and looking for medical assistance.

INGESTION: Keep him at rest. NEVER induce vomiting. unless expressly instructed by staff doctor, seek immediate medical attention.



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Section 5: Fire Fighting Measures

APPROPRIATE EXTINGUISHING MEASURES: Extinguishing powder or CO₂. In case of more serious fires AFFF foam. Water mist or spray form can be used and water spray.

SPECIFIC HAZARDS OF THE CHEMICAL: Fire may produce thick black smoke. As a consequence of thermal decomposition, hazardous products may be formed: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products may be harmful to health.

SPECIAL PROTECTIVE EQUIPMENT: Depending on the size of the fire, the use of heat protective suits, self-contained breathing apparatus, gloves, goggles or face shields, and boots may be necessary.

Section 6: Measures To Be Taken In Case of Accidental Spill or Accidental Release

INDIVIDUAL PRECAUTIONS: For exposure control and individual protection measures, see section 8.

ENVIRONMENTAL PRECAUTIONS: Product not classified as dangerous for the environment, avoid any discharge as much as possible.

METHODS FOR CLEAN-UP AND CONTAINMENT: Contain and collect the spill with inert absorbent material (earth, sand, vermiculite, diatomaceous earth...) and clean the area immediately with a decontaminant. Deposit waste in closed and suitable containers for disposal, in accordance with local and national regulations (see section 13). Contain and collect the spill with inert absorbent material (earth, sand, vermiculite).

Section 7: Handling and Storage

HANDLING: The product does not require special handling measures, the following general measures are recommended:
For personal protection, see section 8.
Smoking, eating and drinking must be prohibited in the application area.
Comply with the legislation on safety and hygiene at work.
Never use pressure to empty the containers, they are not pressure resistant containers. Keep the product in containers of a material identical to the original.

STORAGE: The product does not require special storage measures.
As general storage conditions, sources of heat, radiation, electricity and contact with food should be avoided.
Keep away from oxidizing agents and strongly acidic or alkaline materials.
Store containers between 5 and 35 °C, in a dry and well-ventilated place. The decomposition of this product can lead to the formation of odorous and toxic fumes if it is stored at temperatures above 60 °C for prolonged periods of time or if extremely high heat sources are used. Store separately from incompatible materials. Keep container closed when not in use. Do not store in open, unlabeled, or mislabeled containers. See section 10 for incompatible materials.
Store according to local legislation. Observe the indications of the tag. Once the containers are opened, they must be carefully closed again and placed vertically to avoid spills.

Section 8: Exposure Controls/Personal Protection

Control parameters.

Component	CAS#	Parameter
Diethylene Glycol	111-46-6	Value: TWA: 10 mg/m ³ USA Environmental Exposure Limit in the workplace (WEEL).
Diethylene Glycol Monobutyl Ether	112-34-5	Value: TWA: 10 ppm. (TLV) ACGIH, USA.

Appropriate technical controls

The material must be handled in closed containers and equipment to counteract its contamination, the place where it is stored must have adequate ventilation, the material must be kept in original containers and/or containers, labeled and well covered to avoid contamination with other substances (dust, dew, vapors, among others).



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Appropriate engineering controls:

Personal protection measures, such as personal protective equipment (PPE). Section 16

Hand protection:

Protective gloves against minor risks.

Workwear

Replace at any sign of deterioration.

Eye protection:

Panoramic goggles against splashes and/or projection.

Section 9: Physical and Chemical Properties

Basic physical and chemical properties.

Appearance:	Bright
Saybolt Color:	-17 to +17
Odor:	Characteristic
Odor threshold:	NA/NA
Melting Point/Freezing Point:	NA/NA
Boiling point/Range, °C:	230
Flammability (solid, gas):	NA/NA
Flash point, °C:	NA/NA
Freezing point (1:1), °C	NA/NA
Evaporation rate:	NA/NA
Autoignition temperature:	NA/NA
Decomposition temperature:	NA/NA
pH (1:1 solution, BLF DOT4 (ethanol 80: water 20):	9.25
Kinematic viscosity @ 100 °C mm ² /s:	1.500
Solubility:	NA/NA
Partition coefficient (n-octanol/water):	NA/NA
Vapor pressure:	NA/NA
Density @ 20 °C:	1.0520
Relative vapor density:	NA/NA
Lower explosion limit:	NA/NA
Upper explosion limit:	NA/NA
Lipo-solubility:	NA/NA
Solubility in water:	NA/NA
Explosive properties:	NA/NA
Oxidizing properties:	NA/NA
NA/NA= Not Available/Not Applicable due to the nature of the product.	

Other security features.

Dropping point, °C:	NA/NA
Scintillation:	NA/NA
NA/NA= Not Available/Not Applicable due to the nature of the product.	

Section 10: Stability and Reactivity

REACTIVITY:	There is no speci There is no specific test data for this product.
CHEMICAL STABILITY:	Stable under storage and handling conditionsrecommended (see section 7)
POLYMERIZATION:	The product does not present the possibility of dangerous reactions.
INCOMPATIBILITY - MATERIALS TO AVOID:	Keep away from oxidizing agents and strongly alkaline or acid, in order to avoid exothermic reactions.
HAZARDOUS DECOMPOSITION PRODUCTS:	It does not decompose if it is used for its intended uses.
CONDITIONS TO AVOID:	Do not heat to high temperatures or above its operating temperature inflammation. The container is not designed for high pressure. Do not use pressure to empty as it can break with explosive force.



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Section 11: Toxicological Information

11.1 Information on toxicological effects.

No data available on product tested.

i. Acute toxicity;
Inconclusive data for classification.

ii. Skin corrosion/irritation;
Inconclusive data for classification.

iii. Serious eye damage/eye irritation;
Inconclusive data for classification.

iv. Respiratory or skin sensitization;
Inconclusive data for classification.

v. Germ cell mutagenicity;
Inconclusive data for classification.

vi. Carcinogenicity;
Inconclusive data for classification.

Section 12: Ecotoxicological Information

Toxicity: No information is available regarding the Ecotoxicity of the substances present.

Persistence and degradability: No information is available regarding the biodegradability of the substances present.
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There is no information available on the persistence and degradability of the product.

Bioaccumulative potential: No information is available regarding the bioaccumulation of the substances present.

Ground mobility: Avoid penetration into the ground. Spills can penetrate the soil causing groundwater contamination.
The product should not be allowed to enter sewers or watercourses.

Other adverse conditions: No information is available on other adverse effects on the environment.

Section 13: Information Regarding Product Disposal

It is not allowed to be discharged into sewers or watercourses. Waste and empty containers must be handled and disposed of in accordance with current local, national and international legislation.

Place the waste materials in a container and dispose of it according to local, national or international regulations. Do not dispose in water sources, drains and sewers.

Section 14: Transportation Information

Transport following the Regulations for land transport of hazardous materials and waste and the NOM-002-SCT/2011 STANDARD.

Transport following the ADR/TPC regulations for road transport, the RID for rail, the IMDG for sea and the ICAO/IATA for air transport.



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	Mode of transport		
	Land	Maritime	Aerial
Norms	ADR/TCP	IMDG	IATA/ICAO
UN number	Not dangerous in transportation	Not dangerous in transportation	Not dangerous in transportation
Proper Shipping Name	Not dangerous in transportation	Not dangerous in transportation	Not dangerous in transportation
Transport related class(es)	Not dangerous in transportation	Not dangerous in transportation	Not dangerous in transportation
Packing/package group if applicable	Not dangerous in transportation	Not dangerous in transportation	Not dangerous in transportation
Environmental risks	Does not apply	Not dangerous in transportation	Does not apply
Special precautions for the user	Not dangerous in transportation	Not dangerous in transportation	-
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Does not apply	Not dangerous in transportation	Does not apply

Section 15: Regulatory Information

HAZARD COMMUNICATION INFORMATION – When the product is used for its designed purpose, it is not classified as hazardous material.

Specific provisions on safety, health and the environment for the hazardous chemical substances or mixtures in question.

The product is not affected by the procedure established in the Rotterdam Convention, regarding the export and import of dangerous chemicals.

Section 16: Other Information

Classification and procedure used to determine the classification of mixtures according to the Globally Harmonized System of Classification and Labeling of Chemical Products GHS and Standards NMX-R-019-SCFI-2011 and NOM-010-STPS-2014:

Physical Hazards: Conforme a datos obtenidos de los ensayos
 Health Hazards: Calculation method
 Environmental Hazards: Calculation method

It is recommended to use the product only for the uses contemplated.

Abbreviations and acronyms used:

PPE: Personal Protective Equipment.

OSHA: Occupational Safety and Health Administration.

ACGIH: American Conference of Governmental Industrial Hygienists.

TLV: Threshold Limit Values

SDS: Safety Data Sheet.

CFR: Code of Federal Regulations.

PEL: Permissible Exposure Limit.

IMO: International Maritime Organization (IMDG: International Maritime Dangerous Goods Code):

ICAO: International Civil Aviation Organization.

IATA: International Air Transport Association.

ADR: Agreement on Dangerous Goods by Road.

RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail.

REACH: Registration, Evaluation, Authorisation and restriction of Chemicals.

IARC: International Agency for Research of Cancer.

CCI: Confidential Commercial Information



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Main bibliographical references and data sources:

Mexican STANDARD NOM-018-STPS-2015.

MEXICAN STANDARD NMX-R-019-SCFI-2011.

Official Mexican STANDARD NOM-010-STPS-2014.

Official Gazette of the Federation (DOF).

Globally Harmonized System of Classification and Labeling of Chemical Products SGA/GHS.

The information provided in this Safety Data Sheet has been prepared in accordance with the Official Mexican STANDARD NOM-018-STPS 2015: Harmonized system for the identification and communication of hazards and risks due to hazardous chemical substances in the workplace, published in the Official Gazette of the Federation on 10/09/2015, whose objective is to establish the requirements to have in the work centers the harmonized system of identification and communication of dangers and risks due to dangerous chemical substances, in order to prevent damage to workers and the personnel who act in an emergency.

The information is believed to be correct, but is not exhaustive and is to be used as a guide only, which is based on current knowledge of the chemical or mixture and is applicable to appropriate safety precautions for the product.

OSHA Standard 29 CFR 1910 Subpart I
PERSONAL PROTECTION EQUIPMENT
Identification letter C



The information in this Product Safety Data Sheet is based on current knowledge and current regulations, insofar as the working conditions of users are beyond our knowledge and control. The product must not be used for purposes other than those specified, without first having a written instruction on its handling. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established in the legislation.

- END OF SAFETY DATA SHEET -