



THE FIRST NAME IN BRAKES



SAFETY DATA SHEET

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name: FERODO Brake Fluid**Product No.:** ESP DOT 4**Supplier:**

Federal Mogul Corporation
Central Distribution Centre
Prins Boudewijnlaan 7
B-2550 Kontich, Belgium

Emergency telephone:

24hr EP (INFOTRAC): 1-800-535-5053
International: (001) 352-323-3500

Intended use: Brake fluid

Contact person: Product Manager APS Europe,
Middle-East and Africa
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ITALY; Tel. +39 045 82 81 354

2 HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see Section 15).

Potential health effects

Inhalation: In high concentrations, vapours may be irritating to the respiratory system.

Eye contact: May cause minor irritation on eye contact.

Skin contact: Mildly irritating to skin with prolonged exposure.

Ingestion: May cause discomfort if swallowed.

Other health effects: GLYCOL ETHERS: Some glycol ethers cause adverse effects in animals that include the reproductive system, offspring, blood, kidney and liver. Repeated exposure may cause skin dryness or cracking.

Potential physical / chemical effects: The product is combustible, but not flammable.

Environment: None known.

3 COMPOSITION/INFORMATION ON INGREDIENTS

General information: The product is a mixture.

Chemical name	EC No.	CAS-No.	Concentration *	Classification	Notes
Blend of glycol ethers		None	90 - 100%	-	-

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The full text for all R-Phrases are displayed in section 16.

4 FIRST-AID MEASURES

Inhalation: Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

Eye contact: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin contact: Wash contact areas with soap and water. Get medical attention promptly if symptoms occur after washing.

Ingestion: Drink a few glasses of water or milk. Get medical attention if any discomfort continues.

5 FIRE-FIGHTING MEASURES

Extinguishing media: Water spray, dry powder or carbon dioxide.

Inappropriate extinguishing media: None.

Special fire fighting procedures: Use standard firefighting procedures and consider the hazards of other involved materials.

Unusual fire & explosion hazards: None known.

Hazardous combustion products: Carbon dioxide, Carbon monoxide

Protective measures: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid prolonged and repeated contact. Wear necessary protective equipment.

Spill cleanup methods: Absorb spillage with non-combustible, absorbent material. Collect in containers and seal securely.

Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

Notification procedures: Inform authorities if large amounts are involved.

7 HANDLING AND STORAGE

Handling: All handling to take place in well-ventilated area. Avoid inhalation of vapours. Avoid prolonged and repeated contact. Ground container and transfer equipment to eliminate static electric sparks. Observe good industrial hygiene practices.

Storage: Keep container in a well-ventilated place. Keep away from heat, sparks and open flame.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values: No exposure limits noted for ingredient(s).

Engineering controls: Provide adequate ventilation. Provide easy access to water supply and eye wash facilities.

Respiratory protection: In case of inadequate ventilation or when the product is heated, use suitable respiratory equipment with gas filter (type A2).

Eye protection: Wear approved chemical safety goggles where eye exposure is reasonably probable.

Hand protection: Chemical resistant gloves.

Skin protection: If prolonged or repeated contact is likely, chemical resistant clothing is recommended. Wear suitable protective clothing.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls: Environmental manager must be informed of all major spillages.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Colour: Yellow

Odour: Characteristic

Odour threshold: No data available.

pH: 7 - 10.5

Melting point: <-50°C (-58°F)

Freezing point: No data available.

Boiling Point: 165°C (329°F) - 270°C (518°F)

Relative density: 1.04 - 1.09 (20°C)

Vapour pressure: No data available.

Vapour density (air=1): No data available.

Evaporation rate: No data available.

Volatile: No data available

Solubility in water: Miscible with water.

Solubility (other): Miscible with: Ethanol

Partition coefficient (n-octanol/water): No data available.

Viscosity: 5 cst - 10 cst @20°C

Flash point: >100°C (212°F)

Autoignition temperature: No data available.

Flammability limit - lower(%): No data available.

Flammability limit - upper (%): No data available.

10 STABILITY AND REACTIVITY

Stability: This product is stable under expected conditions of use.

Conditions to avoid: Avoid exposure to high temperatures or direct sunlight.

Materials to avoid: Strong oxidising agents.

Hazardous decomposition products: No data available.

Possibility of hazardous reactions: Will not occur.

11	TOXICOLOGICAL INFORMATION
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Inhalation: In high concentrations, vapours may be irritating to the respiratory system.

Eye contact: May cause minor irritation on eye contact.

Skin contact: Mildly irritating to skin with prolonged exposure.

Ingestion: May cause discomfort if swallowed.

Sensitisation: No data available.

Listed carcinogens: None

Mutagenesis: No data available.

Reproductive toxicity: No data available.

Other effects: GLYCOL ETHERS: Some glycol ethers cause adverse effects in animals that include the reproductive system, offspring, blood, kidney and liver.

12	ECOLOGICAL INFORMATION
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Ecotoxicity: The environmental hazard of the product is considered to be limited.

Mobility: No data available.

Persistence and degradability: No data available.

Bioaccumulation potential: No data available.

Other adverse effects: No data available.

13	DISPOSAL CONSIDERATIONS
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General information: Dispose in accordance with applicable federal, state, and local regulations.

Disposal methods: Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

European waste codes

Unused product: 16 01 15

14	TRANSPORT INFORMATION
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ADR/RID Not regulated.

IMDG Not regulated.

IATA Not regulated.

15	REGULATORY INFORMATION
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The product has not been classified as dangerous according to the legislation in force.

16	OTHER INFORMATION
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Wording of the R-phrases in sections 2 and 3: None

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SDS No.: 1006450

Disclaimer: The information provided on this data sheet was abstracted from supplier safety data sheets and standard references in occupational health and toxicology. Federal-Mogul makes no representation or warranty with respect to the information obtained from such references. The information is however, as of the date provided, true and accurate to the best of Federal-Mogul's knowledge, and should be used to make an independent determination of the methods to safeguard workers and the environment.