



## SAFETY DATA SHEET

### HBF DOT 3

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Product name HBF DOT 3

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Hydraulic Brake Fluid Please look at the Technical Data Sheet of the product for further information.

##### 1.3. Details of the supplier of the safety data sheet

Supplier OPET FUCHS MADENİ YAĞ SAN. ve TİC. A.Ş.  
Atatürk Organize Sanayi Bölgesi 10006 Sok.  
No:12 35620 Çiğli/İZMİR  
Tel: +90 232 376 78 38  
Fax: +90 232 376 78 39

##### 1.4. Emergency telephone number

Emergency telephone UZEM (National Poison Consultancy Center): 114  
Emergency Health Service:112

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Human health No specific hazards under normal use conditions. USED OILS are more dangerous than new oils. Used oils may contain hazardous components which have the potential to cause skin cancer. May cause sensitisation or allergic reactions in sensitive individuals.

Environmental The product is not expected to be hazardous to the environment.

Physicochemical The product is not classified as flammable, but at a temperature above the flash point is flammable when exposed to flame sources.

##### 2.2. Label elements

Hazard statements NC Not Classified

##### 2.3. Other hazards

#### SECTION 3: Composition/information on ingredients

##### 3.2. Mixtures

## HBF DOT 3

<b>2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL</b>	<b>10-20%</b>
CAS number: 143-22-6	EC number: 205-592-6
<b>Classification</b> Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318	

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General information</b>	Change clothes and shoes contaminated or soaked by product. Never put rags contaminated by product into cloth-pockets. Get medical attention if any discomfort continues. Not expected to give rise to an acute hazard under normal conditions of use.
<b>Inhalation</b>	Remove affected person from source of contamination and immediately take outside to fresh air. Consult a doctor if any discomfort continues.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth thoroughly with water. Get medical attention immediately. Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Show this Safety Data Sheet to the medical personnel.
<b>Skin contact</b>	Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes. Brush off loose particles from skin. If adhesive bonding occurs, do not force skin apart. Get medical attention.
<b>Eye contact</b>	Do not rub eye. Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing.
<b>Protection of first aiders</b>	Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves.

#### 4.2. Most important symptoms and effects, both acute and delayed

<b>Inhalation</b>	No specific symptoms known.
<b>Ingestion</b>	No specific symptoms known.
<b>Skin contact</b>	No specific symptoms known.
<b>Eye contact</b>	No specific symptoms known.

#### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	Symptomatic treatment should be applied. In case of excessive inhalation of the product vapor may lead to lung inflammation (chemical pneumonitis). Dermatitis may result from prolonged or repeated exposure.
<b>Specific treatments</b>	Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Use Film-Making Foam Concentrate (A.F.F.F.) to extinguish the burning product. If not available, extinguish with dry chemical powder due to the size of fire. If the product is in pressurized container, cool with water spray jet.
-------------------------------------	--

## HBF DOT 3

**Unsuitable extinguishing media** During a fire, DO NOT extinguish by applying pressurized water and water jet directly on the burning product. Use water fog to cool down.

### 5.2. Special hazards arising from the substance or mixture

**Specific hazards** This product is not explosive. Do not heat up near flash point.

**Hazardous combustion products** In case of fire toxic and corrosive gases may form. These gases: Carbon dioxide, carbon monoxide, sulphur oxides, phosphorus oxides, metal oxides

### 5.3. Advice for firefighters

**Protective actions during firefighting** In case of fire, shut off flow if it can be done without risk. Stop leak if safe to do so. Move undamaged containers from fire area if it can be done without risk. Prevent the burning product from entering into drainage system to avoid release of the product. To prevent spreading of the product build-up binders or barriers by using non-burning material such as sand. Use air-supplied respirators to protect against gases/fumes in case of fire-fighting.

**Special protective equipment for firefighters** Fire-fighting should be done by trained personnel. Special protective full-clothing, air-supplied respirator, gloves and protective goggles should be worn. Dry chemical sand used for fire extinguishing and other fire extinguishing equipment should meet the national and international standards.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** In case of spills, beware of slippery floors and surfaces. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8. Do not smoke, use open fire or other sources of ignition. Wear protective gloves and (in case of splashes) goggles/face shield too.

### 6.2. Environmental precautions

**Environmental precautions** Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground. To prevent release, place container with damaged side up. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to local appropriate regulatory body. Empty container contains product residue which may exhibit hazards of product.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Large Spillages: Stop leak if possible without risk. DO NOT touch spilled material! Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Avoid the spillage or runoff entering drains, sewers or watercourses. Inform authorities if large amounts are involved. Small Spillages: Stop leak if possible without risk. Dam and absorb spillage with sand, sawdust or other absorbent. Absorb in vermiculite, dry sand or earth and place into containers. Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations.

### 6.4. Reference to other sections

**Reference to other sections** For handling and storage, see section 7. For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Provide adequate ventilation. Container must be kept tightly closed when not in use. Protect against direct sunlight. Do not heat up the product near flash point. Avoid spilling, skin and eye contact. Avoid eating, drinking and smoking when using the product. Persons susceptible to allergic reactions should not handle this product.

## HBF DOT 3

### Advice on general occupational hygiene

Wash after use and before eating, smoking and using the toilet. Take off contaminated clothing and wash it before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Storage precautions

Store in a demarcated bunded area to prevent release to drains and/or watercourses. Store in accordance with local regulations. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight. Store in closed original container at temperatures between 0°C and 50°C. Keep away from food, drink and animal feeding stuffs.

#### Storage class

Not special storage precautions required.

### 7.3. Specific end use(s)

#### Usage description

For containers or container linings, use mild steel or high density polyethylene (HDPE). For containers or container linings, avoid PVC. Polyethylene containers should not be exposed to high temperatures because of possible risk distortion.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. In case of insufficient ventilation, wear suitable respiratory equipment. Observe any occupational exposure limits for the product or ingredients.

#### Personal protection

In case of splashing or scattering, wear protective oil-resistant or chemical-resistant clothing.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. Use thin cotton gloves inside the rubber gloves if allergy risk. The selection of suitable gloves does not only depend on the material, but also on further marks of quality varies from manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### Other skin and body protection

Use skin protection cream for preventive skin protection. Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

#### Hygiene measures

Provide eyewash station. Do not smoke in work area. Wash hands after contact. Promptly remove non-impervious clothing that becomes contaminated. Contaminated clothing should be placed in a closed container for disposal or decontamination. Remove contaminated clothing and wash the skin thoroughly with soap and water after work. When using do not eat, drink or smoke.

#### Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: High-efficiency particulate filter.

## HBF DOT 3

<b>Thermal hazards</b>	Contact with hot product can cause serious thermal burns. If there is a risk of contact with hot product, all protective equipment worn should be suitable for use with high temperatures.
<b>Environmental exposure controls</b>	<p>STEL: 10mg/m<sup>3</sup> 15 minutes. Form: Oil mist, mineral</p> <p>TWA: 5mg/m<sup>3</sup> 8 hours. Form: Oil mist, mineral</p> <p>Short-Term Exposure Limit (STEL). The National Institute for Occupational Safety and Health (NIOSH,1992).</p> <p>Time-Weighted Average (TWA). Occupational Safety and Health Administration (OSHA, 29 CFR 1910.1000,Table Z-1).</p>

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Clear, liquid
<b>Colour</b>	Green.
<b>Odour</b>	Characteristic.
<b>pH</b>	pH (concentrated solution): 7,5-10
<b>Melting point</b>	-70°C Solidification point (DIN 51583)
<b>Initial boiling point and range</b>	245°C @ 1,033 mbar
<b>Flash point</b>	135°C ASTM D 7094 (kapalı kap)
<b>Evaporation rate</b>	Not determined.
<b>Upper/lower flammability or explosive limits</b>	: 1,5 Vol
<b>Relative density</b>	1,04-1,07 @ 20°C
<b>Solubility(ies)</b>	Completely soluble in water.
<b>Partition coefficient</b>	Not known.
<b>Viscosity</b>	14,5-17 mm <sup>2</sup> /s @ 20°C
<b>Comments</b>	Values are typical. These values may be variable within the product specification.

#### 9.2. Other information

<b>Other information</b>	No information required.
--------------------------	--------------------------

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

<b>Reactivity</b>	No test data specifically related to reactivity available for this product or its ingredients.
-------------------	--

#### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures. Mixing with any other material.
------------------	--

#### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	No potentially hazardous reactions known.
---	---

#### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid freezing. Avoid contact with strong oxidising agents. Avoid exposure to high temperatures or direct sunlight. Keep away from moisture.
----------------------------	--

#### 10.5. Incompatible materials

## HBF DOT 3

**Materials to avoid** Strong oxidising agents. Strong acids.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. Heating may generate the following products: Toxic and corrosive gases or vapours. Thermal decomposition or combustion products may include the following substances: Carbondioxide,carbon monoxide,sulphur oxides,phosphorus oxides,metal oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** No data recorded.

**Other health effects** No data available to indicate product or any components are carcinogenic,mutagenic,genotoxic,and chronic health hazards.

#### Acute toxicity - oral

**ATE oral (mg/kg)** 3,333.33

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Not determined.

#### Skin corrosion/irritation

**Skin corrosion/irritation** Mevcut özel test verisi yoktur.

#### Serious eye damage/irritation

**Serious eye damage/irritation** No specific test data are available.

#### Respiratory sensitisation

**Respiratory sensitisation** No specific test data are available.

#### Skin sensitisation

**Skin sensitisation** No specific test data are available.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** No specific test data are available.

**Genotoxicity - in vivo** No information available.

#### Carcinogenicity

**Carcinogenicity** No specific test data are available.

#### Reproductive toxicity

**Reproductive toxicity - fertility** No specific test data are available.

**Reproductive toxicity - development** Mevcut özel test verisi yoktur.

#### Specific target organ toxicity - single exposure

**STOT - single exposure** No specific test data are available.

#### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** No specific test data are available.

#### Aspiration hazard

**Aspiration hazard** No specific test data are available

## HBF DOT 3

<b>General information</b>	Information given is based on a knowledge of the components and the toxicology of similar products.
<b>Inhalation</b>	Not expected to cause irritation. Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.
<b>Ingestion</b>	May cause discomfort if swallowed. The main symptoms are gastrointestinal ailments, including upset stomach.
<b>Skin contact</b>	Skin irritation should not occur when used as recommended. Repeated exposure may cause skin dryness or cracking. May cause sensitisation or allergic reactions in sensitive individuals.
<b>Eye contact</b>	Not expected to cause eye irritation. Vapors formed from heating may cause eye irritation.
<b>Acute and chronic health hazards</b>	USED OILS are more dangerous than new oils. Used oils may contain hazardous components which have the potential to cause skin cancer.
<b>Route of entry</b>	Inhalation, ingestion, skin, eye contact.
<b>Target organs</b>	Skin, eyes, respiratory system, lungs, gastro-intestinal tract.

### SECTION 12: Ecological Information

#### 12.1. Toxicity

<b>Acute toxicity - fish</b>	, 96 hour: 596 mg/l, Leuciscus idus (Golden orfe)
<b>Acute toxicity - microorganisms</b>	EC50 > 15 g/l Method : Fermentation tube test Source: Analogy

#### 12.2. Persistence and degradability

**Persistence and degradability** There are no data on the degradability of this product.

#### 12.3. Bioaccumulative potential

<b>Bioaccumulative potential</b>	No data available on bioaccumulation.
<b>Partition coefficient</b>	Not known.

#### 12.4. Mobility in soil

**Mobility** The product is soluble in water.

#### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** There is no specific test data available.

#### 12.6. Other adverse effects

**Other adverse effects** Not known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

<b>General information</b>	Empty packages and wastes produced after the usage of the product should be taken under control according to the current environmental regulations. Unless otherwise noted all wastes should be evaluated as hazardous waste.
<b>Disposal methods</b>	Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.
<b>Waste class</b>	European Waste Catalogue: 13 01 13* Other hydraulic oils

## HBF DOT 3

### SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

No transport warning sign required.

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards**

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

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

### SECTION 15: Regulatory information

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU legislation** Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).  
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

### SECTION 16: Other information

**General information** All ingredients are listed in the European Inventories. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. This data sheet is a safety data sheet according to 91/155/EU. For products which are not subject to classification according to EU lists this data sheet is made on a voluntary base.

**Key literature references and sources for data** December 13, 2014, No. 29204, "the Ministry of Environment and the Ministry of Urban Development Related to Safety Data Sheets on Hazardous Substances and Mixtures Direction"

**Revision comments** It has been revised according to the 1272/2008 CLP regulation. Referans dokuman Form No.: 000000257867 \_revizyon tarihi 20.05.2015



## HBF DOT 3

<b>Issued by</b>	EBRU SEN R&D Engineer Certificated by NBC for MSDS (Certificate No: 01.42.06) Opet Fuchs Madeni Yağ San. Tic. A.Ş. AOSB Mustafa Kemal Bulvarı No:12 35620 Çiğli/İZMİR E-mail: ebru.sen@opetfuchs.com.tr
<b>Revision date</b>	22/08/2017
<b>Revision</b>	5
<b>Supersedes date</b>	21/12/2010
<b>SDS number</b>	OPET.GBF.1100
<b>Hazard statements in full</b>	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information contained in this data sheet. OPET FUCHS MADENI YAG SAN. VE TIC. A.Ş. shall not be responsible for any injury or damage resulting from the abnormal use of the product, recipient assumes all such risks.