



SAFETY DATA SHEET HIDROLİK FREN YAGI (DOT3)

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name HIDROLİK FREN YAGI (DOT3)

Product number 13099

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

Identified uses Brake fluid.

Uses advised against This product must not be used in applications other than those recommended in Section 1, without first seeking the advice of the supplier. This product is not to be used as a solvent or cleaning agent; for lighting or brightening fires; as a skin cleanser. This product is designed only to suit automotive applications and no provision is made for the requirements of aviation applications.

1.3. Details of the supplier of the safety data sheet

Supplier PETROL OFİSİ A.Ş.
Ünalan Mahallesi, Libadiye Caddesi No: 82F Kat: 2-3-4, 34700 Üsküdar/ İstanbul
Tel: +90 850 339 1919
Fax: +90 216 275 3854
madeniyag@petrolofisi.com.tr

Contact person Customer Services: madeniyag@petrolofisi.com.tr

1.4. Emergency telephone number

Emergency telephone Madeni Yağ Customer Services: 0850 339 1919 (working hours)

National emergency telephone number National Poison Consultance Center: 114

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Eye Dam. 1 - H318

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Danger

HIDROLIK FREN YAGI (DOT3)

Hazard statements	H302 Harmful if swallowed. H318 Causes serious eye damage.
Precautionary statements	P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor. P330 Rinse mouth. P501 Dispose of contents/ container in accordance with national regulations.
Contains	2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL, 2,2'-OXYBISETHANOL

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL	60-80%
CAS number: 143-22-6	EC number: 205-592-6
Classification	
Eye Dam. 1 - H318	
2,2'-OXYBISETHANOL	25-40%
CAS number: 111-46-6	EC number: 203-872-2
Classification	
Acute Tox. 4 - H302	
2-(2-METHOXYETHOXY)ETHANOL	1-5%
CAS number: 111-77-3	EC number: 203-906-6
Classification	
Repr. 2 - H361d	

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

Composition comments	Some substances are not classified by legislation. They are self classified by the manufacturer. The DMSO extract by IP 346 of the oil is less than 3%
-----------------------------	--

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Treat symptomatically.
Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

HIDROLIK FREN YAGI (DOT3)

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

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

General information Treat symptomatically. See Section 11 for additional information on health hazards.

Inhalation No specific symptoms known.

Ingestion No specific symptoms known.

Skin contact May cause skin sensitisation or allergic reactions in sensitive individuals.

Eye contact May irritate eyes.

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

Notes for the doctor Treat symptomatically.

Specific treatments Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

Unsuitable extinguishing media Do not use the following: Water. Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Thermal decomposition or combustion products may include the following substances: Asphyxiating gases. Carbon monoxide (CO). Nitrous gases (NOx).

Hazardous combustion products Oxides of carbon. BOx

5.3. Advice for firefighters

Protective actions during firefighting Evacuate area. Use water to keep fire exposed containers cool and disperse vapours. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

For non-emergency personnel Necessary precautions should be taken to ensure that non-educated personnel do not intervene.

For emergency responders Wear protective clothing as shown in section 8 of this safety data sheet. Proper ventilation should be provided.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

HIDROLIK FREN YAGI (DOT3)

Methods for cleaning up Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13. See Section 1 for emergency contact information. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes.

Advice on general occupational hygiene In the areas where the product is handled, food should not be eaten, beverages should not be drink and smoke should not be smoked. Good personal hygiene procedures should be implemented. Wash after use and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.

Storage class Chemical storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

Usage description The product must be used as specified in the data sheet.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

2-(2-methoxyethoxy)ethanol; EU IOELV, TWA: 50,1 mg/m³; 10 ppm (possibility of significant uptake through the skin)

2,2'-OXYBISETHANOL

Long-term exposure limit (8-hour TWA): WEL 23 ppm 101 mg/m³

Short-term exposure limit (15-minute): WEL

WEL = Workplace Exposure Limit.

Ingredient comments If this product contains a component with exclusion limits, to determine the effectiveness of ventilation and other control measures; and / or the necessity of the use of respiratory protective devices, the working environment or biological measurement and monitoring of employees may be required. The European Standard EN 689 and the relevant national guidelines should be taken as reference for the detection methods for assessing exposure to inhalation of chemicals of hazardous substances.

Biological limit values There is no available data.

DNEL There is no available data.

DMEL There is no available data.

PNEC There is no available data.

8.2. Exposure controls

HIDROLİK FREN YAGI (DOT3)

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Personal protection

Keep away from foodstuffs, beverages and foods. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Store protective clothing separately. Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers. Koruyucu elbise ve önlüklerin düzenli bakımı yapılmalıdır.

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.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

Respiratory protection

No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs.

Thermal hazards

If there is a risk of contact with hot product, all protective equipment worn should be suitable for use with high temperatures.

Environmental exposure controls

Keep container tightly sealed when not in use. Store in a demarcated bunded area to prevent release to drains and/or watercourses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Green
Odour	Characteristic.
Odour threshold	No specific test data are available.
pH	pH, %100: ~8,55
Melting point	No specific test data are available.
Initial boiling point and range	No specific test data are available.
Flash point	>118°C Closed cup.
Evaporation rate	No specific test data are available.
Evaporation factor	No specific test data are available.
Flammability (solid, gas)	No specific test data are available.

HIDROLİK FREN YAGI (DOT3)

Upper/lower flammability or explosive limits	No specific test data are available.
Other flammability	No specific test data are available.
Vapour pressure	No specific test data are available.
Vapour density	No specific test data are available.
Relative density	1.04-1.07 g/cm ³ @ 20°C
Bulk density	No specific test data are available.
Solubility(ies)	No specific test data are available.
Partition coefficient	No specific test data are available.
Auto-ignition temperature	No specific test data are available.
Decomposition Temperature	No specific test data are available.
Viscosity	14.5-17 mm ² /s @ 20°C
Explosive properties	No specific test data are available.
Explosive under the influence of a flame	No suitable data is available.
Oxidising properties	No data available.
Comments	Bilgi yok.

9.2. Other information

Other information	No information required.
Refractive index	No specific test data are available.
Particle size	No specific test data are available.
Molecular weight	No specific test data are available.
Volatility	No specific test data are available.
Saturation concentration	No specific test data are available.
Critical temperature	No specific test data are available.
Volatile organic compound	No specific test data are available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
-------------------	---

10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
------------------	--

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
---	--

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition.
----------------------------	---

10.5. Incompatible materials

HIDROLIK FREN YAGI (DOT3)

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

10.6. Hazardous decomposition products

Hazardous decomposition products Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂). BOx

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Information given is based on data of the components and of similar products.

Other health effects No relevant information available.

Acute toxicity - oral

Summary Based on available data, the classification criteria are not met.

Notes (oral LD₅₀) Ethanol-2-butoxy- LD₅₀ 2630 mg/kg, Oral, Rat 2,2'-oxybisethanol, diethylene glycol: LD₅₀ 1120 mg/kg, Oral, Human 2-(2-methoxyethoxy)ethanol: LD₅₀ 4 ml/kg, Oral, Rat dihydro-3-(tetrapropenyl)furan-2,5-dione: LD₅₀ 2900 mg/kg, Oral, Rat

ATE oral (mg/kg) 1,666.67

Acute toxicity - dermal

Summary Based on the available data, the classification criteria are not met.

Notes (dermal LD₅₀) ethanol,-2-butoxy-: LD₅₀ 3540 (24h) mg/kg, Dermal, Rat 2,2'-oxybisethanol, diethylene glycol: LD₅₀ 11890 mg/kg, Dermal, Rabbit 2-(2-methoxyethoxy)ethanol: LD₅₀ 650 mg/kg, Dermal, Rabbit dihydro-3-(tetrapropenyl)furan-2,5-dione: LD₅₀ >2000 mg/kg, Dermal, Rat LD₅₀ 6200-7500 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Summary Basen on the available data, the classification criteria are not met.

Notes (inhalation LC₅₀) 2,2'-oxybisethanol, diethylene glycol: LC₅₀ >4600 (4h) mg/m³, Inhalation, Rat dihydro-3-(tetrapropenyl)furan-2,5-dione: LC₅₀ 5,3 (4h) mg/l, Inhalation, Rat

Skin corrosion/irritation

Summary Basen on the available data, the classification criteria are not met.

Skin corrosion/irritation Not classified as a primary skin irritant.

Animal data No information available.

Human skin model test No information available.

Extreme pH No information available.

Serious eye damage/irritation

Summary Based on available data, the classification criteria are not met.

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Summary Based on available data, the classification criteria are not met.

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Summary Based on available data, the classification criteria are met.

Skin sensitisation Based on available data the classification criteria are not met.

HIDROLIK FREN YAGI (DOT3)

Germ cell mutagenicity

Summary

There is no available data.

Genotoxicity - in vitro

Based on available data the classification criteria are not met.

Genotoxicity - in vivo

Based on available data the classification criteria are not met.

Carcinogenicity

Summary

There is no test data about the carcinogenicity of this product.

Carcinogenicity

Based on available data the classification criteria are not met.

Target organ for carcinogenicity

No specific target organs known.

IARC carcinogenicity

Not listed.

NTP carcinogenicity

Not listed.

Reproductive toxicity

Summary

Suspected of damaging the unborn child.

Reproductive toxicity - fertility

Based on available data the classification criteria are not met.

Reproductive toxicity - development

No information is required.

Specific target organ toxicity - single exposure

Summary

Based on the available data, the classification criteria are not met.

STOT - single exposure

Based on available data the classification criteria are not met.

Target organs

No specific target organs known.

Specific target organ toxicity - repeated exposure

Summary

Based on the available data, the classification criteria are not met.

STOT - repeated exposure

May cause damage to organs (kidney) through prolonged or repeated exposure.

Target organs

No specific target organs known.

Aspiration hazard

Summary

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Toxicokinetics

No information is required.

General information

Information given is based on data of the components and of similar products.

Inhalation

Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

Ingestion

May cause discomfort if swallowed.

Skin contact

Liquid may irritate skin.

Eye contact

Vapour or spray in the eyes may cause irritation and smarting.

Acute and chronic health hazards

No specific long-term effects known.

Route of exposure

Not specific

HIDROLIK FREN YAGI (DOT3)

Target organs	No specific target organs known.
Medical symptoms	Dizziness. Severe stomach pain. Nausea, vomiting.
Medical considerations	No specific test data are available.

SECTION 12: Ecological information

Ecotoxicity	Not regarded as dangerous for the environment.
--------------------	--

12.1. Toxicity

Toxicity	The product is not believed to present a hazard due to its physical nature.
-----------------	---

Acute aquatic toxicity

Summary	Based on available information, the classification criteria are not met.
----------------	--

Acute toxicity - fish	LC ₅₀ , 96 hours: 596 (96 h) mg/l, Fish
------------------------------	--

Acute toxicity - aquatic invertebrates	Ethylene glycol EC ₅₀ , 48 hours: >100 mg/l, Daphnia magna
---	--

Acute toxicity - aquatic plants	No information required.
--	--------------------------

Acute toxicity - microorganisms	No information required.
--	--------------------------

Acute toxicity - terrestrial	No information required.
-------------------------------------	--------------------------

Chronic aquatic toxicity

Summary	Based on available information, the classification criteria are not met.
----------------	--

Chronic toxicity - fish early life stage	No information required.
---	--------------------------

Short term toxicity - embryo and sac fry stages	No information required.
--	--------------------------

Chronic toxicity - aquatic invertebrates	No information required.
---	--------------------------

Toxicity to soil	There is not enough data.
-------------------------	---------------------------

Toxicity to terrestrial plants	There is not enough data.
---------------------------------------	---------------------------

12.2. Persistence and degradability

Persistence and degradability	The product is expected to be biodegradable.
--------------------------------------	--

Phototransformation	No specific test data are available.
----------------------------	--------------------------------------

Stability (hydrolysis)	No specific test data are available.
-------------------------------	--------------------------------------

Biodegradation	No specific test data are available.
-----------------------	--------------------------------------

Biological oxygen demand	No specific test data are available.
---------------------------------	--------------------------------------

Chemical oxygen demand	No specific test data are available.
-------------------------------	--------------------------------------

12.3. Bioaccumulative potential

Bioaccumulative potential	The product is not bioaccumulating.
----------------------------------	-------------------------------------

Partition coefficient	No specific test data are available.
------------------------------	--------------------------------------

12.4. Mobility in soil

HIDROLİK FREN YAGI (DOT3)

Mobility	Uygun bilgi bulunmamaktadır.
Adsorption/desorption coefficient	No specific test data are available.
Henry's law constant	No specific test data are available.
Surface tension	No specific test data are available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.
---	---

12.6. Other adverse effects

Other adverse effects	No information required.
------------------------------	--------------------------

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Use the substance for its intended purpose and recycle if possible. If this product is to be disposed of, it must be disposed of as defined by international, national or local laws and regulations. The generation of waste should be minimised or avoided wherever possible. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Waste class	The waste code classification is to be carried out according to the European Waste Catalogue (EWC).

SECTION 14: Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).
Road transport notes	Not applicable.
Rail transport notes	Not applicable.
Sea transport notes	Not applicable.
Air transport notes	Not applicable.

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.

Transport labels

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

HIDROLIK FREN YAGI (DOT3)

Environmentally hazardous substance/marine pollutant

No.

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 Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

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

National regulations	T. C. Regulation on the Classification, Labeling and Packaging of Substances and Mixtures No. 28848, dated 11 December 2013, by the Ministry of Environment and Urbanization. T. C. Regulation on the Classification, Labeling and Packaging of Substances and Mixtures No. 28848, dated 11 December 2013, by the Ministry of Environment and Urbanization. According to Regulation (EC) No 1907/2006, Annex II, as amended.
EU legislation	https://echa.europa.eu
Guidance	Safety Data Sheets for Substances and Preparations.
Health and environmental listings	Hazardous ingredients are listed.

15.2. Chemical safety assessment

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	E.U. : European union KKE: Personal protective equipment STEL: Short term exposure limit T.C. : Republic of Turkey TWA: Workplace exposure limits UZEM: National Poison Information Center ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. DNEL: Derived No Effect Level. GHS: Globally Harmonized System. LC ₅₀ : Lethal Concentration to 50 % of a test population. LD ₅₀ : Lethal Dose to 50% of a test population (Median Lethal Dose). PBT: Persistent, Bioaccumulative and Toxic substance. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. vPvB: Very Persistent and Very Bioaccumulative.
Classification abbreviations and acronyms	Acute Tox. = Acute toxicity

HIDROLIK FREN YAGI (DOT3)

General information	This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters. Uses and Restrictions : This product must not be used in applications other than those recommended in Section 1, without first seeking the advice of the supplier. This product is not to be used as a solvent or cleaning agent; for lighting or brightening fires; as a skin cleanser. MSDS Distribution : The information in this document should be made available to all who may handle the product. Disclaimer : 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.
Key literature references and sources for data	This SDS is prepared based on the information received from suppliers.
Classification procedures according to Regulation (EC) 1272/2008	EUH208: Supplier information
Training advice	Untrained personnel should not use.
Revision comments	Revised classification.
Issued by	Sena Ezgi SELÇUK Safety Data Sheet Specialist (Certificate No: GBF01.55.06 02.10.2024)
Revision date	31/12/2021
Revision	3
Supersedes date	26/02/2019
SDS number	10095
SDS status	Approved.
Hazard statements in full	H302 Harmful if swallowed. H318 Causes serious eye damage. H361d Suspected of damaging the unborn child.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.