



1. Identification of the substance/preparation and company/undertaking

1.1 Identification of the substance or preparation

Product name Enersyn SF-C 14

SDS no. 402056

1.2 Use of the substance/preparation Water-glycol fire-resistant hydraulic fluid.
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

1.3 Company/undertaking identification

Supplier BP Petrolleri A.Ş.
Sarı Kanarya Sokak No:14 K2 Plaza
34742 Kozyatağı, İstanbul
TURKEY

Telephone: 0216 5712800
Fax: 0216 5712950

E-mail address MSDSadvice@bp.com

1.4 Emergency telephone number

EMERGENCY TELEPHONE NUMBER BP Access Line: 0 212 473 27 27
Carechem: +44 (0) 1235 239 670 (24 hours)

2. Composition/information on ingredients

Substance/preparation

Ethylene glycol; ethanediol. Water Additive.

Chemical name	CAS no.	%	EINECS / ELINCS.	Classification
Ethylene glycol; ethanediol	107-21-1	20 - 50	203-473-3	Xn; R22 [1] [2]
Diethylene glycol; 2,2'-oxybisethanol	111-46-6	20 - 50	203-872-2	Xn; R22 [1]
2-Dimethylaminoethanol	108-01-0	1 - 5	203-542-8	R10 [1] Xn; R20/21/22 C; R34

See section 16 for the full text of the R-phrases declared above

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] PBT-substance

[4] vPvB-substance

Occupational exposure limits, if available, are listed in section 8.

3. Hazards identification

This preparation is classified as dangerous according to Directive 1999/45/EC as amended and adapted.

Human health hazards Harmful if swallowed.

Additional hazards Note: High Pressure Applications
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency.
See 'Notes to physician' under First-Aid Measures, Section 4 of this Safety Data Sheet.

See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

4. First-aid measures

Eye contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin contact In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms appear.

Conforms to the regulation on preparation and distribution of safety data sheets on hazardous materials and preparations 26.12.2008 – 27092.

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Ingestion

Get medical attention urgently informing the doctor that a product containing ethylene glycol has been ingested and specific treatment may be required (see Advice to physicians). Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.

Notes to physician

Treatment should in general be symptomatic and directed to relieving any effects.

Note: High Pressure Applications

Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

Gastric lavage is indicated if significant quantities have been ingested in the previous 4 hours. The metabolism of the glycol to oxalic acid may be delayed by the intravenous administration of ethanol (give as a 5% solution in physiological saline to maintain a blood level of 1-2mg/ml). This has been shown to be an effective antidote provided treatment is started within about 6 hours of exposure. The glycol may be removed by dialysis but oxalates are not readily removed.

5 . Fire-fighting measures

Extinguishing media

Suitable

In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray. This material will not burn or burns with difficulty.

Not suitable

Do not use water jet.

Hazardous decomposition products

Decomposition products may include the following materials:

carbon dioxide
carbon monoxide
nitrogen oxides

Unusual fire/explosion hazards

None identified.

Special fire-fighting procedures

None identified.

Protection of fire-fighters

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

6 . Accidental release measures

Personal precautions

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Large spill

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7 . Handling and storage

7.1 Handling

Wash thoroughly after handling.

7.2 Storage

Keep container tightly closed. Keep container in a cool, well-ventilated area.

Not suitable

Prolonged exposure to elevated temperature.

7.3 Specific uses

For specific application advice see appropriate Technical Data Sheet or consult our company representative.

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8. Exposure controls/personal protection

8.1 Occupational exposure limits

Ingredient name

Ethylene glycol; ethanediol

Occupational exposure limits

TR ISGGM OEL (Turkey). Absorbed through skin.

TWA: 52 mg/m³ 8 hour(s). Issued/Revised: 12/2003

TWA: 20 ppm 8 hour(s). Issued/Revised: 12/2003

STEL: 104 mg/m³ 15 minute(s). Issued/Revised: 12/2003

STEL: 40 ppm 15 minute(s). Issued/Revised: 12/2003

ACGIH TLVs

Ethylene glycol; ethanediol

ACGIH TLV (United States).

C: 100 mg/m³ Issued/Revised: 5/1995 Form: Aerosol

For information and guidance, the ACGIH values are included. For further information on these please consult your supplier.

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

8.2 Exposure controls

8.2.1 Occupational exposure controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.

All chemicals should be assessed for their risks to health and appropriate control measures put in place to prevent or adequately control exposure. A hierarchy of control measures exists (e.g. elimination, substitution, general ventilation, containment, systems of work, changing the process or activity) that must be considered before use of personal protective equipment. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

8.2.1.1 Respiratory protection

Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure.

In case of insufficient ventilation, wear suitable respiratory equipment.

Respiratory protective equipment must be checked to ensure it fits correctly each time it is worn.

Air-filtering respirators, also called air-purifying respirators, will not be adequate under conditions of oxygen deficiency (i.e. low oxygen concentration), and would not be considered suitable where airborne concentrations of chemicals with a significant hazard are present. In these cases air-supplied breathing apparatus will be required.

Provided an air-filtering/air-purifying respirator is suitable, a filter for particulates can be used for mist or fume. Use filter type P or comparable standard. A combination filter for particles and organic gases and vapours (boiling point >65°C) may be required if vapour or abnormal odour is also present due to high product temperature. Use filter type AP or comparable standard.

8.2.1.2 Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves.

Recommended: nitrile gloves

Protective gloves will deteriorate over time due to physical and chemical damage. Inspect and replace gloves on a regular basis. The frequency of replacement will depend upon the circumstances of use.

8.2.1.3 Eye protection

Safety glasses with side shields.

8.2.1.4 Skin protection

Use of protective clothing is good industrial practice.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

8.2.2 Environmental exposure controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.

All chemicals should be assessed for their risks to health and appropriate control measures put in place to prevent or adequately control exposure. A hierarchy of control measures exists (e.g. elimination, substitution, general ventilation, containment, systems of work, changing the process or activity) that must be considered before use of personal protective equipment. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

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9 . Physical and chemical properties

9.1 [General information](#)

9.1.1 [Appearance](#)

Physical state Liquid.
Colour Yellow.

9.1.2 Odour Characteristic.

9.2 [Important health, safety and environmental information](#)

Viscosity Kinematic: 45 mm²/s (45 cSt) at 40°C

Boiling point / range >100°C (>212°F)

Pour point -47 °C

Density 1075 kg/m³ (1.075 g/cm³) at 15°C

Solubility Miscible in water.

9.3 Other information Not available.

10 . Stability and reactivity

Stability The product is stable.

10.1 Conditions to avoid No specific data.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.

10.2 Materials to avoid Reactive or incompatible with the following materials: oxidizing materials.

10.3 Hazardous decomposition products Combustion products may include the following:
carbon oxides
nitrogen oxides
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 . Toxicological information

Acute toxicity Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis.

Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.

Get medical attention urgently informing the doctor that a product containing ethylene glycol has been ingested and specific treatment may be required (see Advice to physicians).

At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.

Chronic toxicity
Chronic effects No known significant effects or critical hazards.

Effects and symptoms

Eyes No significant health hazards identified.

Skin No significant health hazards identified.

Inhalation No significant health hazards identified.

Ingestion Harmful if swallowed.

12 . Ecological information

12.1 Ecotoxicity
Environmental hazards Not classified as dangerous.

12.2 Mobility Spillages may penetrate the soil causing ground water contamination.

12.3 Persistence/degradability Inherently biodegradable

12.4 Bioaccumulative potential This product is not expected to bioaccumulate through food chains in the environment.

12.5 Other ecological information Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

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13 . Disposal considerations

Disposal considerations / Waste information

The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Refer to all national, regional, and local regulations for disposal requirements

14 . Transport information

Not classified as hazardous for transport (ADR/RID, ADN, IMDG, ICAO/IATA)

15 . Regulatory information

Classification and labelling have been performed according to EU directive 1999/45/EC as amended and adapted and Regulation on classification, packaging and labelling of Hazardous materials and preparations (26.12.2008-27092).

Label requirements

Hazard symbol or symbols



Harmful

Indication of danger

Risk phrases

R22- Harmful if swallowed.

Safety phrases

S46- If swallowed, seek medical advice immediately and show this container or label.

Contains

Ethylene glycol; ethanediol

Other regulations

Europe inventory

All components are listed or exempted.

United States inventory (TSCA 8b)

All components are listed or exempted.

Australia inventory (AICS)

All components are listed or exempted.

Canada inventory

All components are listed or exempted.

China inventory (IECSC)

All components are listed or exempted.

Japan inventory (ENCS)

All components are listed or exempted.

Korea inventory (KECI)

All components are listed or exempted.

Philippines inventory (PICCS)

All components are listed or exempted.

16 . Other information

Full text of R-phrases referred to in sections 2 and 3

R10- Flammable.
R22- Harmful if swallowed.
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R34- Causes burns.

History

Date of issue/ Date of revision

24/06/2010.

Date of previous issue

No previous validation.

Prepared by

Product Stewardship

Notice to reader

Indicates information that has changed from previously issued version.

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.

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