SAFETY DATA SHEET
SUPER ANTIFRIZ

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 SUPER ANTIFRIZ

Product number 13200

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

Identified uses Antifreeze liquid.

Uses advised against Use only for intended 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/ Istanbul
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 Emergency Medical Services: 112 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

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms

Signal word Warning

Hazard statements H302 Harmful if swallowed.

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Precautionary statements P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
P330 Rinse mouth.
P501 Dispose of contents/ container in accordance with national regulations.

Contains Monoetilen glikol

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Monoetilen glikol **80-95%**
CAS number: 107-21-1

Classification
Acute Tox. 4 - H302

Toliltriazolo **<1%**
CAS number: 29385-43-1

Classification
Acute Tox. 4 - H302
Aquatic Chronic 2 - H411

IDROSSIDO DI SODIO **<1%**
CAS number: 1310-73-2

Classification
Met. Corr. 1 - H290
Skin Corr. 1A - H314
Eye Dam. 1 - H318

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

Composition comments All percentages displayed expressed as weight/weight.

Ingredient notes See Section 8 for occupational exposure limits.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues.

Inhalation Move affected person to fresh air at once. Get medical attention. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. Do not induce vomiting. Remove affected person from source of contamination. Give plenty of water to drink. Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Skin contact Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

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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 promptly if symptoms occur after washing.
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	See Section 11 for additional information on health hazards.
Inhalation	No specific symptoms known.
Ingestion	No specific symptoms known.
Skin contact	No specific symptoms known.
Eye contact	No specific symptoms known.

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 foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Foam. Water.

5.2. Special hazards arising from the substance or mixture

Specific hazards	None known.
Hazardous combustion products	Not known.

5.3. Advice for firefighters

Protective actions during firefighting	Use special protective clothing.
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. Avoid inhalation of spray mist and contact with skin and eyes.
For non-emergency personnel	Necessary precautions should be taken to ensure that non-educated personnel do not intervene.

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For emergency responders Wear protective clothing as shown in section 8 of this safety data sheet. Notification: In case of spillage, notify the local authorities as appropriate or as necessary. Stop the leakage source if it can be done without risk.Limit spillage to prevent further contamination of soil, surface or ground water.Remove any spilled material as soon as possible by following the precautions in the section Exposure Controls / Personal Protection.Use suitable techniques such as non-flammable absorbent materials or pumping.When possible or appropriate, remove the contaminated soil from the area.Place contaminated products in disposable boxes and dispose of in accordance with regulations.If a heated material is spilled, allow it to cool before handling with disposal methods.

6.2. Environmental precautions

Environmental precautions Contain spillage with sand, earth or other suitable non-combustible material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. If involved in a fire, shut off flow if it can be done without risk.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. 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. For waste disposal, see section 13. See Section 7 for more information on safe handling.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Do not handle broken packages without protective equipment.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Provide eyewash station and safety shower. Good personal hygiene procedures should be implemented.

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. Store in accordance with international regulations.

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 Good ventilation should be provided in the working environment and the vapor generated during use should be avoided.Avoid contact with skin and apply hygienic rules .Avoid contact with eyes.Goggles or face to prevent eye contact
mask should be used.Use disposable clothing.Dispose of contaminated clothing without packaging.It should not be siphoned by mouth.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Monoetilen glikol

Exposure Limits AFS 2005:17 (Sweden, 6/2007)
OSHA (PEL): 50 ppm
ACGIH TLV: 50 ppm

Ingredient comments WEL = Workplace Exposure Limits

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Biological limit values	No other information known.
DNEL	No other information known.
DMEL	No other information known.
PNEC	No other information known.

8.2. Exposure controls

Protective equipment

Appropriate engineering controls	Provide adequate general and local exhaust ventilation.
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.
Eye/face protection	The following protection should be worn: Chemical splash goggles.
Hand protection	It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). Rubber (natural, latex).
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour 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. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin.
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	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Blue-green.
Odour	Characteristic.
Odour threshold	No specific test data are available.
pH	pH (diluted solution): 7-11 %50
Melting point	-40°C 50 % conc.
Initial boiling point and range	No specific test data are available.
Flash point	110°C OC (Open cup).
Evaporation rate	No specific test data are available.

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Evaporation factor	No specific test data are available.
Flammability (solid, gas)	No specific test data are available.
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	1.12 g/ml @ 20°C
Bulk density	No specific test data are available.
Solubility(ies)	Soluble in water.
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	No specific test data are available.
Explosive properties	No specific test data are available.
Explosive under the influence of a flame	No specific test data are available.
Oxidising properties	Not known.
Comments	No specific test data are available.

9.2. Other information

Other information	No specific test data are available.
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 This product is stable under normal conditions.

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

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Conditions to avoid	Keep away from heat, sparks and open flame.

10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Aluminum Phenols, cresols.

10.6. Hazardous decomposition products

Hazardous decomposition products	Not known.

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 other information known.

Acute toxicity - oral

Summary	Acute Tox. 4 - H302
Notes (oral LD_{50})	No other information known.
ATE oral (mg/kg)	526.34

Acute toxicity - dermal

Summary	No other information known.
Notes (dermal LD_{50})	No other information known.

Acute toxicity - inhalation

Summary	No other information known.
Notes (inhalation LC_{50})	No other information known.

Skin corrosion/irritation

Summary	Based on available data the classification criteria are not met.
Skin corrosion/irritation	Based on available data the classification criteria are not met.
Animal data	Based on available data the classification criteria are not met.
Human skin model test	Based on available data the classification criteria are not met.
Extreme pH	Based on available data the classification criteria are not met.

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

Germ cell mutagenicity

Summary	Based on available data the classification criteria are not met.
Genotoxicity - in vitro	Based on available data the classification criteria are not met.

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Genotoxicity - in vivo	Based on available data the classification criteria are not met.

Carcinogenicity

Summary	Based on available data the classification criteria are not met.
Carcinogenicity	Based on available data the classification criteria are not met.
Target organ for carcinogenicity	No specific target organs known.
IARC carcinogenicity	No other information known.
NTP carcinogenicity	No other information known.

Reproductive toxicity

Summary	No other information known.
Reproductive toxicity - fertility	No other information known.
Reproductive toxicity - development	No other information known.

Specific target organ toxicity - single exposure

Summary	No other information known.
STOT - single exposure	Based on available data the classification criteria are not met.
Target organs	No other information known.

Specific target organ toxicity - repeated exposure

Summary	No other information known.
STOT - repeated exposure	Based on available data the classification criteria are not met.
Target organs	No other information known.

Aspiration hazard

Summary	No other information known.
Aspiration hazard	No other information known.

Toxicokinetics	No other information known.
General information	No other information known.
Inhalation	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Ingestion	Harmful if swallowed.
Skin contact	Skin irritation should not occur when used as recommended.
Eye contact	No specific health hazards known.
Acute and chronic health hazards	No other information known.
Route of exposure	No other information known.
Target organs	No other information known.
Medical symptoms	No other information known.
Medical considerations	No other information known.

Toxicological information on ingredients.

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Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} 8,54 g/kg, Oral, Rat LD_{50} 13,7 g/kg, Oral, Mouse LD_{50} 6,61 g/kg, Oral, Pig
ATE oral (mg/kg)	500.0

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} 9530 mg/kg, Dermal, Rabbit

Toliltriazolo

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} >720 mg/kg, Oral, Rat LD_{50} >4000 mg/kg, Dermal, Rabbit LC50 >0,43 mg/l, Inhalation, Rat
ATE oral (mg/kg)	500.0

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Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} 333-388 mg/kg, Oral, Rabbit

SECTION 12: Ecological information

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

12.1. Toxicity

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

Acute aquatic toxicity

Summary	Based on available data the classification criteria are not met.
Acute toxicity - fish	No specific test data are available.
Acute toxicity - aquatic invertebrates	No specific test data are available.
Acute toxicity - aquatic plants	No specific test data are available.
Acute toxicity - microorganisms	No specific test data are available.
Acute toxicity - terrestrial	No specific test data are available.

Chronic aquatic toxicity

Summary	Based on available data the classification criteria are not met.
Chronic toxicity - fish early life stage	No specific test data are available.
Short term toxicity - embryo and sac fry stages	No specific test data are available.
Chronic toxicity - aquatic invertebrates	No specific test data are available.
Toxicity to soil	No specific test data are available.
Toxicity to terrestrial plants	No specific test data are available.

Ecological information on ingredients.

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Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 24-48 hour: 20 mg/l, bluegillsunfish
Acute toxicity - aquatic plants	NOEC, : >700 mg/l, entosiphone sulcatum
Acute toxicity - microorganisms	LC_{50}, : 12,8 mmol/l, ciliate LC_{50}, : 92 mg/l, pseudomonas putida EC_{50}, : >1400 mg/l, microcystis aeruginosa

Toliltriazolo

Acute aquatic toxicity

Acute toxicity - fish	EC_{50}, 72 hour: 62 mg/l, LC_{50}, 96 hour: 65 mg/l, Danio rerio (Zebrafish) LC_{50}, 96 hour: 31 mg/l, Freshwater fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 35,4 mg/l, Daphnia magna
Acute toxicity - aquatic plants	LC_{50}, 96 hour: 25,5 mg/l,

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Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 48 hour: 213 mg/l, LC_{50}, 48 hour: 189 mg/l,
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 40,4 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability	The product is readily 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	No specific test data are available.
Partition coefficient	No specific test data are available.

12.4. Mobility in soil

Mobility	The product is soluble in water.
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.

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12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment No specific test data are available.

12.6. Other adverse effects

Other adverse effects No specific test data are available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information 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).

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

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 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

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National regulations	T. C. Ministry of Environment and Urbanization Regulation on Safety Data Sheets on Hazardous Substances and Mixtures 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.
EU legislation	Commission Regulation (EU) No 453/2010 of 20 May 2010. https://echa.europa.eu
Guidance	Workplace Exposure Limits EH40. CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. Chemical safety assessment

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	TWA: Workplace exposure limits KKE: Personal protective aquipment E.U. : European union UZEM: National Poison Information Center ATE: Acute Toxicity Estimate. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level. IATA: International Air Transport Association. GHS: Globally Harmonized System. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No Effect Concentration. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. vPvB: Very Persistent and Very Bioaccumulative. IARC: International Agency for Research on Cancer. MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Aquatic Chronic = Hazardous to the aquatic environment (chronic) Met. Corr. = Corrosive to metals Skin Corr. = Skin corrosion Eye Dam. = Serious eye damage
General information	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. 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. Only trained personnel should use this material. 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.
Key literature references and sources for data	This SDS is prepared based on the information received from raw material suppliers.

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Classification procedures according to Regulation (EC) 1272/2008	Acute Tox. 4 - H302: Calculation method., Supplier information
Training advice	Untrained personnel should not use.
Revision comments	Revised classification.
Issued by	Sevda ŞAHAN Certified Safety Data Sheet Preparer (Certificate Id:GBF01.23.08;Dates: 03.11.2018-03.11.2021)
Revision date	28/02/2020
Revision	4
Supersedes date	17/06/2011
Hazard statements in full	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H411 Toxic to aquatic life with long lasting effects.