



SAFETY DATA SHEET

GRAVIS M 1500

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 GRAVIS M 1500

Product number 28161

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

Identified uses Industrial oil

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/ 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 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 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 3 - H412

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

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Precautionary statements

P261 Avoid breathing vapour/ spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P321 Specific treatment (see medical advice on this label).

P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/ container in accordance with national regulations.

Contains

Amines, C10-14-tert-alkyl

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Mineral oil (mixture) CAS number: — The mineral oil contained in this material may be described by one or more of the following CAS No's.: 64742-54-7, 64742-65-0, 6474255-8, and 64742-56-9.	1-5%
Classification Asp. Tox. 1 - H304	
Distilatlar (petrol), hidrojen ile işlenmiş hafif naftenik CAS number: — EC number: 265-156-6	1-5%
Classification Asp. Tox. 1 - H304	
Phosphoric acid, mono- and bis(branched and linear pentyl) esters CAS number: — EC number: 282-784-6	<1%
Classification Skin Corr. 1B - H314 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412	

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Amines, C10-14-tert-alkyl		<1%
CAS number: —	EC number: 701-175-2	
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification Acute Tox. 4 - H302 Acute Tox. 3 - H311 Acute Tox. 2 - H330 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1A - H317 STOT SE 3 - H335 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		
1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-nonanethiol		<1%
CAS number: —	EC number: 293-927-7	
Classification Aquatic Chronic 3 - H412		
C16-18-(even numbered, saturated and unsaturated)-alkylamines		<1%
CAS number: —	EC number: 627-034-4	
M factor (Acute) = 10	M factor (Chronic) = 10	
Classification Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		

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%

Ingredient notes See Section 8 for occupational exposure limits. This SDS is prepared based on the information received from raw material suppliers.

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.

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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 irritation persists after washing.
Eye contact	Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.
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. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	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	Not known.
Hazardous combustion products	A complex mixture of airborne solids, liquids and gases can be released. Smoke and irritating vapours as products of incomplete combustion. Carbon dioxide (CO ₂). Carbon monoxide (CO). Oxides of nitrogen. Oxides of sulphur. Oxides of phosphorus.

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours.
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.

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For emergency responders Notification: In case of spillage, notify the local authorities as appropriate or as necessary. Proper ventilation should be provided. 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 Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. 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 Good ventilation should be provided in the working environment and inhalation of vapor generated during use should be avoided. Skin contact should be avoided and hygienic rules should be followed. Eye contact should be avoided. Wear goggles or a face mask to prevent eye contact. Avoid eating, drinking and smoking while using. Use disposable clothing. Prevent soil contamination or spillage into sewage systems and water.

Advice on general occupational hygiene Persons susceptible to allergic reactions should not handle this product. Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene procedures should be implemented. Take off contaminated clothing.

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 national regulations. Store in a demarcated bunded area to prevent release to drains and/or watercourses.

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

No other information known.

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.

Highly refined mineral oil (CAS: 64742-01-4)

Ingredient comments Oil Mist TWA: 5 mg /m3 (ACGIH).

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

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

Personal protection

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

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. 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

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Brown.
Odour	Characteristic.
Odour threshold	No specific test data are available.
pH	Scientifically unjustified.

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Melting point	No specific test data are available.
Initial boiling point and range	No specific test data are available.
Flash point	$\geq 240^{\circ}\text{C}$ OC (Open 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.
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	No specific test data are available.
Bulk density	$\sim 0,91$ @ 15°C g/ml
Solubility(ies)	Insoluble 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	1350-1650 cSt @ 40°C
Explosive properties	No information available.
Explosive under the influence of a flame	Not known.
Oxidising properties	Not known.
Comments	No other information known.

9.2. Other information

Other information	No other information known.
Refractive index	No other information known.
Particle size	No other information known.
Molecular weight	No other information known.
Volatility	No other information known.
Saturation concentration	No other information known.
Critical temperature	No other information known.
Volatile organic compound	No other information known.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	This product is stable under normal conditions.
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10.2. Chemical stability

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Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No hazardous reaction under normal conditions of storage and use.

10.4. Conditions to avoid

Conditions to avoid Keep away from heat, sparks and open flame. Avoid excessive heat for prolonged periods of time. Static electricity and formation of sparks must be prevented.

10.5. Incompatible materials

Materials to avoid Strong acids. Strong alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of nitrogen. Sulfur oxides. Phosphor oxides. Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, irritating vapors and other products of incomplete combustion.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Based on available data the classification criteria are not met.

Other health effects Based on available data the classification criteria are not met.

Acute toxicity - oral

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

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

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

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

ATE dermal (mg/kg) 179,372.2

Acute toxicity - inhalation

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

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

ATE inhalation (vapours mg/l) 298.95

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

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Summary	Based on available data the classification criteria are not met.
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Summary	Skin Sens. = Skin sensitisation
Skin sensitisation	Sensitising. Supplier's information.
<u>Germ cell mutagenicity</u>	
Summary	Based on available data the classification criteria are not met.
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.
<u>Carcinogenicity</u>	
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	Not listed.
NTP carcinogenicity	Not listed.
<u>Reproductive toxicity</u>	
Summary	Based on available data the classification criteria are not met.
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
Summary	Based on 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.
<u>Specific target organ toxicity - repeated exposure</u>	
Summary	Based on available data the classification criteria are not met.
STOT - repeated exposure	Based on available data the classification criteria are not met.
Target organs	No specific target organs known.
<u>Aspiration hazard</u>	
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 other information known.
General information	No other information known.
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.

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Skin contact	Liquid may irritate skin.
Eye contact	May cause temporary eye irritation.
Acute and chronic health hazards	No other information known.
Route of exposure	No other information known.
Target organs	No specific target organs known.
Medical symptoms	No other information known.
Medical considerations	No other information known.

Toxicological information on ingredients.

Highly refined mineral oil

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >2000 mg/kg, Oral,

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal,

Mineral oil (mixture)

Skin sensitisation

Skin sensitisation Classification: Not a skin sensitizer. (Read across) (Supplier information)

Specific target organ toxicity - single exposure

STOT - single exposure If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. (Supplier information)

Aspiration hazard

Aspiration hazard Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death. (Supplier information)

Distilatlar (petrol), hidrojen ile işlenmiş hafif naftenik

Aspiration hazard

Aspiration hazard Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death. (Supplier information)

Distillates (petroleum), hydrotreated heavy naphthenic

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >5000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Species Rat

Notes (inhalation LC₅₀) LC50 >5.53 mg/l, Inhalation, Rat

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ATE inhalation 5.53
(dusts/mists mg/l)

Skin corrosion/irritation

Summary Not irritating. Supplier's information.

Serious eye damage/irritation

Summary Not irritating. Supplier's information.

Skin sensitisation

Summary Not sensitising. Supplier's information.

Germ cell mutagenicity

Genotoxicity - in vitro Bacterial reverse mutation test: Negative. Chromosome aberration: Negative. Gene mutation: Negative. Supplier's information.

Genotoxicity - in vivo Micronucleus Test: Negative. Supplier's information.

Carcinogenicity

Summary Based on available data the classification criteria are not met. Supplier's information.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met. Supplier's information.

Reproductive toxicity - development Based on available data the classification criteria are not met. Supplier's information.

Phosphoric acid, mono- and bis(branched and linear pentyl) esters

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >2000 mg/kg, Oral, Rat

Germ cell mutagenicity

Genotoxicity - in vitro Bacterial reverse mutation test: Negative. Gene mutation: Negative. Micronucleus Test: Negative.

Reproductive toxicity

Reproductive toxicity - fertility Negative. Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test - NOAEL 300 mg/kg, Oral, Rat

Reproductive toxicity - development Negative. Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test - NOAEL: 300 mg/kg, Oral, Rat

Amines, C10-14-tert-alkyl

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 612 mg/kg, Oral, Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 251 mg/kg, Dermal, Rat Repeated Dose: NOAEL 20 mg/kg, Dermal, Rat

ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

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Notes (inhalation LC₅₀)	LC50 1,19 mg/l, Inhalation, Rat Repeated Dose: NOAEL 19 mg/m ³ , Inhalation, Rat
ATE inhalation (vapours mg/l)	0.5
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Rabbit: Skin-Visible necrosis.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Rabbit: Eyes- Visible necrosis.
<u>Skin sensitisation</u>	
Skin sensitisation	Guinea pig Skin Sens. = Skin sensitisation
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. Gene mutation: Negative.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	One-generation study, Fertility - Negative , Oral, Rat
Reproductive toxicity - development	One-generation study, Fertility - : Negative , Oral, Rat One-generation study, Maternal toxicity: - : Positive , Oral, Rat

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-nonanethiol

<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	LD ₅₀ >10000 mg/kg, Oral, Rat
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	LD ₅₀ >2000 mg/kg, Dermal, Rabbit
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	LC50 >2,75 mg/l, Inhalation, Rat
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Moderately irritating. Rabbit Supplier's information.
<u>Skin sensitisation</u>	
Summary	Not sensitising. Supplier's information.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. Chromosome aberration: Negative. Supplier's information.

C16-18-(even numbered, saturated and unsaturated)- alkylamines

<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	LD ₅₀ 1689 mg/kg, Oral, Rat
ATE oral (mg/kg)	500.0
<u>Skin corrosion/irritation</u>	
Summary	Rabbit: Skin-Visible necrosis.
<u>Germ cell mutagenicity</u>	

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Genotoxicity - in vitro : Negative.

Reproductive toxicity

Reproductive toxicity - fertility - Negative , Oral, Rat

Reproductive toxicity - development Maternal toxicity: - : Positive , Oral, Rat Developmental toxicity: - : Negative , Oral, Rat

Aspiration hazard

Summary Aspiration Hazard

Exchangeable neutral oils

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >2000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rabbit

SECTION 12: Ecological information

Ecotoxicity Aquatic Chronic = Hazardous to the aquatic environment (chronic) Aquatic Chronic 3 - H412

12.1. Toxicity

Toxicity Harmful to aquatic life with long lasting effects.

Acute aquatic toxicity

Summary No other information known.

Acute toxicity - fish No other information known.

Acute toxicity - aquatic invertebrates No other information known.

Acute toxicity - aquatic plants No other information known.

Acute toxicity - microorganisms No other information known.

Acute toxicity - terrestrial No other information known.

Chronic aquatic toxicity

Summary No other information known.

Chronic toxicity - fish early life stage No other information known.

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

Chronic toxicity - aquatic invertebrates No other information known.

Toxicity to soil No other information known.

Toxicity to terrestrial plants No other information known.

Ecological information on ingredients.

Mineral oil (mixture)

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Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 4 day: >100 mg/l, Fathead Minnow
Acute toxicity - aquatic invertebrates	EC ₅₀ , 2 day: >10000 mg/l, Daphnia magna EC ₅₀ , 21 day: >10 mg/l, Daphnia magna NOEC, 21 day: >10 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 3 day: >100 mg/l, Scenedesmus quadricauda

Distilatlar (petrol), hidrojen ile işlenmiş hafif naftenik

Acute aquatic toxicity

Acute toxicity - aquatic invertebrates	EC ₅₀ , 2 day: >10000 mg/l, Daphnia magna EC ₅₀ , 21 day: >10 mg/l, Daphnia magna NOEC, 21 day: 10 mg/l, Daphnia magna
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Distillates (petroleum), hydrotreated heavy naphthenic

Acute aquatic toxicity

Acute toxicity - fish	LL ₅₀ , 96 hour: >100 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EL ₅₀ , 48 hour: >1000 mg/l, Daphnia magna

Chronic aquatic toxicity

Chronic toxicity - fish early life stage	NOEL, 14 day: 1000 mg/l, Oncorhynchus mykiss (Rainbow trout)
Chronic toxicity - aquatic invertebrates	NOEL, 72 hour: >100 mg/l, Alg NOEL, 21 day: 10 mg/l, Daphnia magna

Phosphoric acid, mono- and bis(branched and linear pentyl) esters

Acute aquatic toxicity

Acute toxicity - fish	LL ₅₀ , 96 hour: >100 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hour: 56 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EL ₅₀ , 72 hour: >100 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EC ₅₀ , 3 hour: >1000 mg/l, Micro-organisms

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates	EL ₁₀ , 72 hour: 24 mg/l, Alg
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Amines, C10-14-tert-alkyl

Acute aquatic toxicity

LE(C)₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LL ₅₀ , 96 hours: 63,5 mg/l, Oncorhynchus mykiss (Rainbow trout)

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Acute toxicity - aquatic invertebrates	EL50, 48 hour: 2,5 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EL50, 72 hour: 0,44 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EL50, 30 minutes: 63,5 mg/l, Micro-organisms
<u>Chronic aquatic toxicity</u>	
M factor (Chronic)	1
Chronic toxicity - fish early life stage	NOEC, 96 day: 0,078 mg/l, Oncorhynchus mykiss (Rainbow trout)
Chronic toxicity - aquatic invertebrates	NOEL, 72 hours: 0,05 mg/l, Alg

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-nonanethiol

Acute aquatic toxicity

Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hour: 41 mg/l, Daphnia magna
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C16-18-(even numbered, saturated and unsaturated)- alkylamines

Acute aquatic toxicity

LE(C)₅₀	0.01 < L(E)C ₅₀ ≤ 0.1
M factor (Acute)	10
Acute toxicity - fish	LL ₅₀ , 96 hour: 0,06 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EL50, 48 hour: 0,011 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EL50, 96 hour: 0,04 mg/l, Algae
Acute toxicity - microorganisms	EL50, 3 hour: 222,5 mg/l, Micro-organisms
<u>Chronic aquatic toxicity</u>	
M factor (Chronic)	10
Chronic toxicity - aquatic invertebrates	NOEL, 21 day: 0,013 mg/l, Daphnia magna NOEL, 96 hour: 0,01 mg/l, Alg

12.2. Persistence and degradability

Persistence and degradability	No other information known.
Phototransformation	No other information known.
Stability (hydrolysis)	No other information known.
Biodegradation	No other information known.
Biological oxygen demand	No other information known.
Chemical oxygen demand	No other information known.

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Ecological information on ingredients.

Mineral oil (mixture)

Biodegradation Carbon dioxide formation - 31: 28 day, OECD TG 301B

Distilatlar (petrol), hidrojen ile işlenmiş hafif naftenik

Biodegradation Oxygen discharge - 31 %: 28 day, OECD TG 301 F

Distillates (petroleum), hydrotreated heavy naphthenic

Biodegradation Manometric Respirometry Test - Degradation 31 %: 28 day, OECD TG 301 F

Phosphoric acid, mono- and bis(branched and linear pentyl) esters

Biodegradation Carbon dioxide formation - 45 %: 28 day, OECD TG 301B

Amines, C10-14-tert-alkyl

Biodegradation Closed Bottle Test - Degradation 21,8%: 28 day, OECD TG 301 D

C16-18-(even numbered, saturated and unsaturated)- alkylamines

Biodegradation Carbon dioxide formation - Degradation 66 %: 28 day, OECD TG 301B

12.3. Bioaccumulative potential

Bioaccumulative potential No other information known.

Partition coefficient No specific test data are available.

Ecological information on ingredients.

Amines, C10-14-tert-alkyl

Bioaccumulative potential log Pow: 2,9,

12.4. Mobility in soil

Mobility No other information known.

Adsorption/desorption coefficient No other information known.

Henry's law constant No other information known.

Surface tension No other information known.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Not applicable.

12.6. Other adverse effects

Other adverse effects No other information known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible.

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Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Reuse or recycle products wherever possible. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.
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).
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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

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

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. Ministry of Environment and Urbanization Regulation on Safety Data Sheets on Hazardous Substances and Mixtures
EU legislation	https://echa.europa.eu Commission Regulation (EU) No 453/2010 of 20 May 2010.
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

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Abbreviations and acronyms used in the safety data sheet

T.C. : Republic of Turkey
 DMSO: Dimethyl sulfoxide
 KKE: Personal protective equipment
 E.U. : European union
 UZEM: National Poison Information Center
 DNEL: Derived No Effect Level.
 CAS: Chemical Abstracts Service.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 vPvB: Very Persistent and Very Bioaccumulative.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.

Classification abbreviations and acronyms

Skin Sens. = Skin sensitisation
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)
 Asp. Tox. = Aspiration hazard
 Acute Tox. = Acute toxicity
 Skin Corr. = Skin corrosion
 Eye Dam. = Serious eye damage
 STOT SE = Specific target organ toxicity-single exposure
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 STOT RE = Specific target organ toxicity-repeated exposure

General information

Only trained personnel should use this material. MSDS Distribution : The information in this document should be made available to all who may handle 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. 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 raw material suppliers.

Classification procedures according to Regulation (EC) 1272/2008

Skin Sens. 1 - H317: Calculation method., Supplier information Aquatic Chronic 3 - H412: Calculation method., Supplier information

Training advice

Untrained personnel should not use.

Revision comments

Revised classification. Adding content information.

Issued by

Sevda ŞAHAN Certified Safety Data Sheet Preparer (Certificate Id:GBF01.23.08;Dates: 03.11.2018-03.11.2021)

Revision date

27/01/2020

Revision

4

Supersedes date

17/06/2011

SDS number

10044

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Hazard statements in full

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H373 May cause damage to organs through prolonged or repeated exposure if swallowed or if inhaled.

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.