

UFI:

### Eni Antifreeze Spezial DE

Material number 655

Revision date: 20.3.2024
Version: 5.0
Replaces version: 4.0
Language: en-DE
Date of print: 5.4.2024

# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU)

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

#### 1.1 Product identifier

Trade name: Eni Antifreeze Spezial DE

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

General use: Radiator antifreeze.

For commercial user only.

5JDU-M57Y-R007-Y79S

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

Company name: Enilive Schmiertechnik GmbH

Street/POB-No.: Paradiesstraße 14
Postal Code, city: 97080 Würzburg

Germany

E-mail: info.wuerzburg@enilive.com

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Department responsible for information:

Application Engineering & Product Management (AEPM)

Telephone: +49 (0)931-90098-0 E-mail: technik.wuerzburg@enilive.com

#### 1.4 Emergency telephone number

GIZ-Nord, Göttingen

Telephone: +49 (0)551-19240

### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

#### Classification according to EC regulation 1272/2008 (CLP)

Acute Tox. 4; H302 Harmful if swallowed.

Repr. 1B; H360D May damage the unborn child.

STOT RE 2; H373 May cause damage to organs through prolonged or repeated exposure.

#### 2.2 Label elements

#### Labelling (CLP)





Signal word: Danger

Hazard statements: H302 Harmful if swallowed.

H360D May damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.



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Precautionary statements:

P201 Obtain special instructions before use.
P260 Do not breathe mist/vapours/spray.

P264 Wash hands and face thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.

P501 Dispose of contents/container to hazardous or special waste collection point.

#### Special labelling

Text for labelling: Contains: Ethylene glycol, Sodium 2-ethylhexanoate.

Restricted to professional users.

#### 2.3 Other hazards

Special danger of slipping by leaking/spilling product.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% (w/w) or higher. The product does not contain any substances classified as PBT or vPvB.

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

3.1 Substances: not applicable

#### 3.2 Mixtures

Hazardous ingredients:

| Identifiers   | Designation<br>Classification   | Content   |
|---|---|-----------|
| REACH 01-2119456816-28-xxxx<br>EC No. 203-473-3<br>CAS 107-21-1   | Ethylene glycol<br>Acute Tox. 4; H302. STOT RE 2; H373.   | 80 - 98 % |
| EC No. 243-283-8<br>CAS 19766-89-3                                | Sodium 2-ethylhexanoate<br>Repr. 1B; H360D.   | < 5 %     |
| REACH 01-2119979081-35-xxxx<br>EC No. 249-596-6<br>CAS 29385-43-1 | Methyl-1H-benzotriazole Acute Tox. 4; H302. Repr. 2; H361d. Aquatic Chronic 2; H411. Acute toxicity estimate (ATE): Oral: 720 mg/kg bw. | < 1 %     |

Full text of H- and EUH-statements: see section 16.



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#### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

General information: First aider: Pay attention to self-protection! If medical advice is needed, have product

container or label at hand.

Ensure that medical personnel are aware of the material(s) involved, and take precautions

to protect themselves.

In case of inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable

for breathing. Seek medical attention.

Following skin contact: Thoroughly wash skin with soap and water. Take off contaminated clothing and wash it

before reuse. In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids

apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently

consult an ophthalmologist.

After swallowing: Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an

unconscious person. In case of vomiting, lay at least head on side. Seek medical attention.

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

May cause damage to organs through prolonged or repeated exposure. Harmful if swallowed.

Spasms, drowsiness, nausea, vomiting, abdominal pain, oedema (swelling).

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

Treat symptomatically. Symptoms may occur with delay.

# **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media:

Alcohol resistant foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

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

Combustible. May form dangerous gases and vapours in case of fire.

Furthermore, there may develop: Smoke, compounds of low molecular weight, carbon monoxide and carbon dioxide.

#### 5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Move undamaged containers from immediate hazard area if it can be done safely. Do not

breathe fumes. Use fine water spray to cool endangered containers.

Do not allow water used to extinguish fire to enter drains, ground or waterways. Fire residuals and contaminated extinguishing water must be disposed of in accordance with

the regulations of the local authorities.



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#### **SECTION 6: Accidental release measures**

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

Avoid exposure. Do not breathe mist/vapours/spray. Avoid contact with the substance.

If possible, eliminate leakage. Provide adequate ventilation.

Wear appropriate protective equipment. Keep unprotected people away.

Take off contaminated clothing and wash it before reuse.

#### **6.2 Environmental precautions**

Do not allow to penetrate into soil, waterbodies or drains.

If necessary notify appropriate authorities.

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

Large amounts of spillages:

Plug leak if safely possible. Soak up with absorbent materials such as sand, siliceus earth, acid- or universal binder. Store in special closed containers and dispose of according to ordinance. Thoroughly clean the contaminated area with water.

Small amounts of spillages:

Wipe up with absorbent material (eg. cloth, fleece). Final cleaning.

Spilled product must never be returned to the original container for recycling.

Additional information: Special danger of slipping by leaking/spilling product.

#### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

# **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

Advices on safe handling: Obtain special instructions before use.

Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place.

Precautions against fire and explosion:

Take care of general rules for industrial preventive fire protection.

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

Requirements for storerooms and containers:

Keep container tightly closed and in a well-ventilated place. Keep container dry. Keep only in the original container.

Protect from heat and direct sunlight. Store containers in upright position.

Hints on joint storage: Do not store together with: Strong acids, strong oxidizing agents, nitrates, peroxides,

chlorates.

Keep away from food, drink and animal feedingstuffs.

Storage class: 6.1C = Combustible substances of acute toxicity, category 3 / hazardous substances

that are toxic or produce chronic effects



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#### 7.3 Specific end use(s)

Refrigerant/anti-freezing agent

# **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

Occupational exposure limit values:

| CAS No.  | Designation     | Туре                       | Limit value   |
|----------|-----------------|----------------------------|---|
| 107-21-1 | Ethylene glycol | Europe: IOELV: STEL        | 104 mg/m³; 40 ppm<br>(may be absorbed through the skin) |
|          |                 | Europe: IOELV: TWA         | 52 mg/m³; 20 ppm  |
|          |                 | Germany: TRGS 900 Kurzzeit | (may be absorbed through the skin) 52 mg/m³; 20 ppm     |
|          |                 | ,                          | (Aerosol and vapour, may be absorbed                    |
|          |                 | Germany: TRGS 900 Langzeit | through the skin)<br>26 mg/m³; 10 ppm                   |
|          |                 | •                          | (Aerosol and vapour, may be absorbed                    |
|          |                 |                            | through the skin)                                       |

DNEL/DMEL: Information about Ethylene glycol:

DNEL workers, inhalative, local, long-term: 35 mg/m<sup>3</sup>

DNEL workers, dermal, systemic, long-term: 106 mg/kg bw/d DNEL consumers, inhalative, local, long-term: 7 mg/m³

DNEL consumers, dermal, systemic, long-term: 53 mg/kg bw/d

Information about Methyl-1H-benzotriazole:

DNEL workers, inhalative, systemic, long-term: 21,2 mg/m³ DNEL workers, dermal, systemic, long-term: 0,3 mg/kg bw/d DNEL consumers, inhalative, systemic, long-term: 350 µg/m³ DNEL consumers, dermal, systemic, long-term: 0,01 mg/kg bw/d DNEL consumers, oral, systemic, long-term: 0,01 mg/kg bw/d

PNEC: Information about Ethylene glycol:

PNEC water (freshwater): 10 mg/L PNEC water (marine water): 1 mg/L PNEC sediment (freshwater): 37 mg/kg dw PNEC sediment (marine water): 3,7 mg/kg dw

PNEC soil: 1,53 mg/kg dw

PNEC sewage treatment plant STP: 199,5 mg/L Information about Methyl-1H-benzotriazole: PNEC water (freshwater): 0,008 mg/L PNEC water (marine water): 20 µg/L

PNEC sediment (freshwater): 0,117 mg/kg dw PNEC sediment (marine water): 0,292 mg/kg dw

PNEC soil: 18,7 µg/kg dw

PNEC sewage treatment plant STP: 39,4 mg/L

#### 8.2 Exposure controls

Provide adequate ventilation, and local exhaust as needed.



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#### Personal protection equipment

#### Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded.

Use filter type A (= against vapours of organic substances) according to BS EN 14387.

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Hand protection: Protective gloves according to DIN EN 374.

Glove material: Fluororubber (Viton), nitrile rubber, butyl caoutchouc (butyl rubber),

neoprene

Layer thickness: >= 0,38 mm Breakthrough time: 480 min

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to DIN EN ISO 16321-1:2022.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:

Obtain special instructions before use. Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Have eye wash bottle or eye rinse ready at work place.

#### **Environmental exposure controls**

Refer to "6.2 Environmental precautions".

# **SECTION 9: Physical and chemical properties**

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

Physical state at 20 °C and 101.3 kPa liquid

Colour: light red, clear

Odour: Weak

Odour threshold:

Melting point/freezing point:

No data available

-18 °C (freezing point)

Initial boiling point and boiling range: 175 °C
Flammability: Combustible
Upper/lower flammability or explosive limits: No data available

Flash point/flash point range: approx. 122 °C (Pensky-Martens, c.c.)

Decomposition temperature:

PH:

at 20 °C: 8,65

Viscosity, kinematic:

No data available

Water solubility: Miscible

Partition coefficient: n-octanol/water: -1,36 log K(o/w) (Ethylene glycol)

Based on the n-octanol/water partition coefficient accumulation in organisms

is not expected.

Vapour pressure:

Density:

Vapour density:

Vapour density:

No data available
at 20 °C: 1,113 kg/L

No data available

Particle characteristics:

Not applicable



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#### 9.2 Other information

Explosive properties:

No data available

Oxidizing characteristics:

No data available

Auto-ignition temperature: 398 °C (Ethylene glycol)

Evaporation rate: No data available
Additional information: No data available

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Refer to subsection "Possibility of hazardous reactions".

#### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

#### 10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames. Protect from direct sunlight.

#### 10.5 Incompatible materials

Strong acids, strong oxidizing agents, nitrates, peroxides, chlorates.

#### 10.6 Hazardous decomposition products

At elevated temperature: Ketone, aldehydes.

Thermal decomposition: No data available



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# **SECTION 11: Toxicological information**

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological effects:

The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Acute Tox. 4; H302 = Harmful if swallowed.

ATEmix calculated: 1.720 mg/kg

Acute toxicity (dermal): Based on available data, the classification criteria are not met. Acute toxicity (inhalative): Based on available data, the classification criteria are not met. Skin corrosion/irritation: Based on available data, the classification criteria are not met. Serious eye damage/irritation: Based on available data, the classification criteria are not

Sensitisation to the respiratory tract: Lack of data.

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

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Lack of data.

Reproductive toxicity: Repr. 1B; H360D = May damage the unborn child.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Based on available data, the classification

criteria are not met.

Specific target organ toxicity (repeated exposure): STOT RE 2; H373 = May cause

damage to organs through prolonged or repeated exposure.

Possible: Damage of kidneys. Aspiration hazard: Lack of data.

#### 11.2 Information on other hazards

Endocrine disrupting properties:

None

Other information: Information about Ethylene glycol:

LD50 Rat, oral: 7.712 mg/kg

ATE, oral: 500 mg/kg

LD50 Mouse, dermal: > 3.500 mg/kg

LC50 Rat, inhalative (aerosol): > 2,5 mg/L/6h Information about Sodium 2-ethylhexanoate: LD50 Rat, oral: 2.043 mg/kg (OECD 401)

LD50 Rat, dermal: > 2.000 mg/kg

Information about Methyl-1H-benzotriazole: LD50 Rat, oral: 720 mg/kg (OECD 401)

LD50 Rabbit, dermal: > 2.000 mg/kg (OECD 402)



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#### **Symptoms**

In case of inhalation: In high concentrations: Irritation to respiratory tract, cough.

In case of ingestion: Information about Ethylene glycol:

Nausea, vomiting, abdominal pain, loss of sight, liver and kidney damage, irritation. Fetal

developement hazard, neurotoxic effects, spasms, pulmonary oedema, cardiac

arrhythmias, pneumonia. Lethal dosis for humans is approx. 100 mL.

After contact with skin:

Prolonged or repeated contact with the product affects the skin's natural oils and induces

drying up. Irritation.

After eye contact: Direct contact with eyes may cause temporary irritation.

# **SECTION 12: Ecological information**

#### 12.1 Toxicity

Aquatic toxicity: Information about Ethylene glycol:

Fish toxicity:

LC50 Pimephales promelas (fathead minnow): 57.000 mg/L/96h

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): > 100 mg/L/48h (OECD 202)

Information about Methyl-1H-benzotriazole:

Fish toxicity:

LC50 Danio rerio (zebrafish): 180 mg/L/96h (OECD 203)

Daphnia toxicity:

LC50 (Acartia tonsa): 55 mg/L/48h (OECD 202) EC10 Daphnia galeata: 0,4 mg/L/21d (OECD 211)

Algae toxicity:

EC50 Pseudokirchneriella subcapitata (green algae): 75 mg/L/72h (OECD 201)

Water Hazard Class: 1 = slightly hazardous to water (Self-classification (mixture).)

#### 12.2 Persistence and degradability

Further details: Information about Ethylene glycol:

Biodegradation: > 90%/10d (OECD 301A). Readily biodegradable.

Effects in sewage plants: Information about Ethylene glycol:

Bacterial toxicity:

EC20 Activated sludge: > 1.995 mg/L/30 min

#### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:

-1,36 log K(o/w) (Ethylene glycol)

Based on the n-octanol/water partition coefficient accumulation in organisms is not

expected.

#### 12.4 Mobility in soil

Low (estimated).

#### 12.5 Results of PBT and vPvB assessment

The product does not contain any substances classified as PBT or vPvB.



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#### 12.6 Endocrine disrupting properties

None

#### 12.7 Other adverse effects

General information: Do not allow to penetrate into soil, waterbodies or drains.

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

**Product** 

Waste key number: 16 01 14\* = Antifreeze fluids containing hazardous substances

\* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.

**Package** 

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in

the same way as the substance itself. Non-contaminated packages may be recycled.

# **SECTION 14: Transport information**

#### 14.1 UN number or ID number

ADR/RID, ADN, IMDG, IATA-DGR:

not applicable

### 14.2 UN proper shipping name

ADR/RID, ADN, IMDG, IATA-DGR:

Not restricted

#### 14.3 Transport hazard class(es)

ADR/RID, ADN, IMDG, IATA-DGR:

not applicable

#### 14.4 Packing group

ADR/RID, ADN, IMDG, IATA-DGR:

not applicable

#### 14.5 Environmental hazards

Dangerous for the environment:

Substance/mixture is not environmentally hazardous according to the criteria of the UN

model regulations.

Marine pollutant - IMDG: no

#### 14.6 Special precautions for user

No dangerous good in sense of these transport regulations.



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#### 14.7 Maritime transport in bulk according to IMO instruments

No data available

# **SECTION 15: Regulatory information**

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

#### National regulations - Germany

Storage class: 6.1C = Combustible substances of acute toxicity, category 3 / hazardous substances

that are toxic or produce chronic effects

Water Hazard Class: 1 = slightly hazardous to water (Self-classification (mixture).)

Technical guidance air: 5.2.5, 5.2.7

Information on working limitations:

Observe employment restrictions for young people.

Observe employment restrictions for expectant or nursing mothers.

Further regulations, limitations and legal requirements:

The product is controlled by the German Chemicals Prohibition Ordinance (ChemVerbotsV).

#### National regulations - EC member states

#### Labelling of packaging with <= 125mL content





Signal word: Danger

Hazard statements: H360D May damage the unborn child.

Precautionary statements:

P201 Obtain special instructions before use.

P280 Wear protective gloves/protective clothing/eye protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.

P501 Dispose of contents/container to hazardous or special waste collection point.

Further regulations, limitations and legal requirements:

Use restriction according to REACH annex XVII, no.: 3, 30, 75

#### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

### **SECTION 16: Other information**

Wording of the H-phrases under paragraph 2 and 3:

H302 = Harmful if swallowed.

H360D = May damage the unborn child.

H361d = Suspected of damaging the unborn child.

H373 = May cause damage to organs through prolonged or repeated exposure.

H411 = Toxic to aquatic life with long lasting effects.

Reason of change: Changes in section 1: Details of the supplier of the safety data sheet

General revision

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Department issuing data sheet:

#### see section 1: Department responsible for information

#### Abbreviations and acronyms:

Acute Tox .: Acute toxicity

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

Aquatic Chronic: Hazardous to the aquatic environment - chronic

AS/NZS: Australian Standards/New Zealand Standards

ATE: Acute toxicity estimate

ATEmix: Acute Toxicity Estimate of mixture

Bw: Body weight

CAS: Chemical Abstracts Service CFR: Code of Federal Regulations

CLP: Classification, Labelling and Packaging

DMEL: Derived minimal effect level DNEL: Derived no-effect level EC: European Community EC50: Effective Concentration 50%

EN: European Standard EQ: Excepted quantities EU: European Union

IATA: International Air Transport Association

IATA-DGR: International Air Transport Association - Dangerous Goods Regulations

IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IMDG Code: International Maritime Dangerous Goods Code

LC50: Median lethal concentration

LD50: Lethal dose 50%

MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

OECD: Organisation for Economic Co-operation and Development

OEL: Occupational Exposure Limit Value

OSHA: Occupational Safety and Health Administration

PBT: Persistent, bioaccumulative and toxic PNEC: Predicted no-effect concentration

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

Repr.: Reproductive toxicity

RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail

STOT RE: Specific target organ toxicity - repeated exposure

TLV: Threshold Limit Value

TRGS: Technical Rules for Hazardous Substances vPvB: Very persistent and very bioaccumulative

WEL: Workplace Exposure Limit

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

> Most recent product information is available at: http://sumdat.net/fw9qgth4