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

1.1 Product identifier

Trade name: Eni Antifreeze Spezial 12++

UFI: M9D0-J0HC-F00N-EEG4

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

General use: Radiator antifreeze

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
Telephone: +49 (0)931-90098-0
Telefax: +49 (0)931-98442

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.
STOT RE 2; H373 May cause damage to organs (kidney) through prolonged or repeated exposure (oral, dermal).

2.2 Label elements

Labelling (CLP)

Signal word: **Warning**

Hazard statements:
H302 Harmful if swallowed.
H373 May cause damage to organs (kidney) through prolonged or repeated exposure (oral, dermal).

Precautionary statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P260	Do not breathe mist/vapours/spray.
P264	Wash hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P314	Get medical advice/attention if you feel unwell.
P501	Dispose of contents/container to hazardous or special waste collection point.

Special labelling

Text for labelling: Contains: Ethylene glycol

2.3 Other hazards

The product is skin resorptive.
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

Chemical characterisation: Mixture of the substances listed below with non-hazardous additions (inhibitors)

Hazardous ingredients:

Identifiers	Designation Classification	Content
REACH 01-2119456816-28-xxxx EC No. 203-473-3 CAS 107-21-1	Ethylene glycol Acute Tox. 4; H302. STOT RE 2; H373.	75 - 100 %
REACH 01-2120762063-61-xxxx EC No. 241-300-3 CAS 17265-14-4	Disodium sebacate Eye Irrit. 2; H319.	< 5 %
REACH 01-2119980062-42-xxxx EC No. 265-004-9 CAS 64665-57-2	Sodium 4(or 5)-methyl-1H-benzotriazolide Acute Tox. 4; H302. Skin Corr. 1B; H314. Eye Dam. 1; H318. Repr. 2; H361d. Aquatic Chronic 2; H411.	< 0,2 %

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: 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: Remove the casualty into fresh air and keep them calm.
In the events of symptoms take medical treatment.

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. In case of eye irritation 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 (kidney) through prolonged or repeated exposure (oral, dermal). Harmful if swallowed.
Spasms, drowsiness, nausea, vomiting, gastrointestinal complaints, 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:

Water spray jet, alcohol resistant foam, extinguishing powder.

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, traces of incompletely burned carbon compounds, 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: Cool endangered containers with water jetspray.
Do not allow fire water to penetrate into surface or ground water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Eliminate all ignition sources if safe to do so. Avoid the formation of aerosol. Avoid contact with the substance. Do not breathe mist/vapours/spray. Wear appropriate protective equipment. Keep unprotected people away. Take off contaminated clothing and wash it before reuse. If possible, eliminate leakage.

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: Provide adequate ventilation, and local exhaust as needed.
Avoid the formation of aerosol. 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.

Precautions against fire and explosion:
Keep away from heat.
When handling larger quantities, take precautionary measures against electrostatic charging.

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.
Recommended storage temperature: ≤ 30 °C

Hints on joint storage: Do not store together with: Strong oxidizing agents.
Keep away from food, drink and animal feedingstuffs.

Storage class: 10 = Combustible liquids that cannot be assigned to any of the above storage classes

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

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

DNEL/DMEL: Information about Ethylene glycol (CAS 107-21-1):
DNEL, workers, inhalative, local, long-term: 35 mg/m³
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

8.2 Exposure controls

Provide adequate ventilation, and local exhaust as needed.

Personal protection equipment

Occupational exposure controls

Respiratory protection: In case of inadequate ventilation wear respiratory protection. Respiratory protection must be worn whenever the WEL levels have been exceeded.
Use combination filter type A-P2 according to 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 ISO 374:1.
Glove material:
Nitrile rubber - Layer thickness: 0,4 mm
Butyl caoutchouc (butyl rubber) - Layer thickness: 0,7 mm
Breakthrough time: > 30 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:
Avoid the formation of aerosol. Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.

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:	pink
Odour:	like glycol
Odour threshold:	No data available
Melting point/freezing point:	< -18 °C (DIN ISO 3016)
Initial boiling point and boiling range:	≥ 163 °C (ASTM D1120)
Flammability:	Not readily flammable
Upper/lower flammability or explosive limits:	No data available
Flash point/flash point range:	≥ 120 °C (DIN ISO 2592)
Auto-ignition temperature:	420 °C (DIN 51794)
Decomposition temperature:	No data available
pH:	approx. 8 (ASTM D1287; not diluted) at 25 °C, 30%: 8,2 - 8,6 (ASTM D1287)
Viscosity, kinematic:	at 20 °C: 27 mm²/s (DIN 51 562)
Solubility:	Soluble in polar solvents
Water solubility:	Soluble
Partition coefficient: n-octanol/water:	-1,36 log K(o/w) (Ethylene glycol (CAS 107-21-1)) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Vapour pressure:	at 20 °C: 0,2 hPa
Density:	at 20 °C: 1,123 - 1,126 g/mL (DIN 51 757)
Vapour density:	at 20 °C: > 1 (Air = 1; estimated)
Particle characteristics:	Not applicable

9.2 Other information

Explosive properties:	Not explosive
Oxidizing characteristics:	Not oxidising
Auto-ignition temperature:	No data available
Refraction index:	1,432 - 1,436 (DIN 51 423)
Water content:	≤ 3,0 % (DIN 51 777)
Evaporation rate:	No data available
Additional information:	Product is hygroscopic. Incapable of spontaneous heating. Thixotropic substance(s): None. Electric conductivity: at 25 °C: 1,2 mS/cm (ASTM D1125; not diluted)

SECTION 10: Stability and reactivity

10.1 Reactivity

Product is hygroscopic.

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 oxidizing agents.

10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

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 (human): approx. 1.600 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 met.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Based on available data, the classification criteria are not met.
Specific symptoms in animal studies: Not sensitising.
Based on structural characteristics, a possible sensitizing potential with human beings cannot be ruled out.

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

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

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

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 (exposure route: oral, dermal).

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

11.2 Information on other hazards

Endocrine disrupting properties:

None

Other information:

Information about Ethylene glycol (CAS 107-21-1):
LD50 Rat, oral: 7.712 mg/kg
ATE: 500 mg/kg
LD50 Mouse, dermal: > 3.500 mg/kg
LC50 Rat, inhalative (aerosol): > 2,5 mg/L/6h

Information about Sodium 4(or 5)-methyl-1H-benzotriazolide (CAS 64665-57-2):
LD50 Rat, oral: 735 mg/kg (OECD 401)

Symptoms

After contact with skin: The product is skin resorptive.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Information about Ethylene glycol (CAS 107-21-1):
Fish toxicity:
LC50 Pimephales promelas (fathead minnow): 72.860 mg/L/96h
Daphnia toxicity:
EC50 Daphnia magna (Big water flea): > 100 mg/L/48h (OECD 202)
Algae toxicity:
NOEC Pseudokirchneriella subcapitata (green algae): > 100 mg/L/72h (OECD 201)

Water Hazard Class: 1 = slightly hazardous to water

12.2 Persistence and degradability

Further details:

Biodegradation:
DOC reduction: > 70%/28 d (OECD 301A). Easily bio-degradable.

Information about Ethylene glycol (CAS 107-21-1):
DOC reduction: 90 - 100 %/10 d (OECD 301A). Easily bio-degradable.

Effects in sewage plants:

Information about Ethylene glycol (CAS 107-21-1):
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 (CAS 107-21-1))
Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

12.4 Mobility in soil

The substance will not evaporate from the water surface into the atmosphere.

12.5 Results of PBT and vPvB assessment

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

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.

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: 10 = Combustible liquids that cannot be assigned to any of the above storage classes

Water Hazard Class: 1 = slightly hazardous to water

Technical guidance air: 5.2.5

Information on working limitations:
Observe employment restrictions for young people.
Observe employment restrictions for expectant or nursing mothers.

Further regulations, limitations and legal requirements:

No data available

National regulations - EC member states

Further regulations, limitations and legal requirements:

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

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Classification procedure: Health hazards: Calculation method

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

H302 = Harmful if swallowed.
H314 = Causes severe skin burns and eye damage.
H318 = Causes serious eye damage.
H319 = Causes serious eye irritation.
H361d = Suspected of damaging the unborn child.
H373 = May cause damage to organs (kidney) through prolonged or repeated exposure (oral, dermal).
H411 = Toxic to aquatic life with long lasting effects.

Reason of change:

Changes in section 1: Product identifier (UFI)
Changes in section 2: Classification, labelling
Changes in section 3: Composition / Information on ingredients
Changes in section 9: Physical and chemical properties
Changes in section 15: Regulatory information
General revision

Date of first version: 30.12.2020

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
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
DOC: Dissolved Organic Carbon
EC: European Community
EC50: Effective Concentration 50%
EN: European Standard
EQ: Excepted quantities
EU: European Union
Eye Dam.: Eye damage
Eye Irrit.: Eye irritation
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
NOEC: No Observed Effect Concentration
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
Skin Corr.: Skin corrosion
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/tmrb3qyp