



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No. 2015/830

Revision date: 30/12/2020
Version: 1.0
Language: en-GB,IE
Date of print: 19/7/2021

Eni Antifreeze Extra D

Material number 801

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

1.1 Product identifier

Trade name: Eni Antifreeze Extra D

UFI: E1U4-67HU-H00H-QC3Q

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: Eni Schmiertechnik GmbH

Street/POB-No.: Paradiesstraße 14

Postal Code, city: DE-97080 Würzburg

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Department responsible for information:

Abteilung Anwendungstechnik

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

E-mail: technik.wuerzburg@eni.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 through prolonged or repeated exposure.

2.2 Label elements

Labelling (CLP)



Signal word:

Warning

Hazard statements:

H302

Harmful if swallowed.

H373

May cause damage to organs through prolonged or repeated exposure.

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.



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Special labelling

Text for labelling: Contains: ethylene glycol

2.3 Other hazards

Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Hazardous ingredients:

Ingredient	Designation	Content	Classification
REACH 01-2119456816-28-xxxx EC No. 203-473-3 CAS 107-21-1	Ethylene glycol	80 - 98 %	Acute Tox. 4; H302. STOT RE 2; H373.
REACH 01-2119460683-35-xxxx EC No. 208-534-8 CAS 532-32-1	Sodium benzoate	1 - 5 %	Eye Irrit. 2; H319.
REACH 01-2119490790-32-xxxx EC No. 215-540-4 CAS 12179-04-3	Borates, tetra, sodium salts (Pentahydrate) (SVHC)	< 3 %	Eye Irrit. 2; H319. Repr. 1B; H360FD.

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

Additional information: Contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: Borates, tetra, sodium salts (Pentahydrate) (CMR)

Information about Borates, tetra, sodium salts (Pentahydrate):
H360 Specific concentration limit (SCL): ≥ 6.5 %

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. 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.



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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, 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:

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. In case of fire may be liberated: Smoke, traces of incompletely burned carbon compounds, nitrogen oxides (NO_x), 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:

Hazchem-Code: -

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.

6.2 Environmental precautions

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

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, siliceous 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.



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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. Avoid contact with the substance. Avoid contact with skin and eyes. Do not breathe mist/vapours/spray.
Handle and open container with care. Wear appropriate protective equipment. Take off contaminated clothing. When using do not eat or drink. Wash hands before breaks and after work. 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 only in the original container.

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.

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	Type	Limit value
107-21-1	Ethylene glycol	Europe: IOELV: STEL	104 mg/m ³ ; 40 ppm (may be absorbed through the skin)
		Europe: IOELV: TWA	52 mg/m ³ ; 20 ppm (may be absorbed through the skin)
		Great Britain: WEL-STEL	104 mg/m ³ ; 40 ppm (vapour, may be absorbed through the skin)
		Great Britain: WEL-TWA	10 mg/m ³ (may be absorbed through the skin)
		Great Britain: WEL-TWA	52 mg/m ³ ; 20 ppm (vapour, may be absorbed through the skin)
		Ireland: 15 minutes	104 mg/m ³ ; 40 ppm (may be absorbed through the skin)
		Ireland: 8 hours	52 mg/m ³ ; 20 ppm (may be absorbed through the skin)
12179-04-3	Borates, tetra, sodium salts (Pentahydrate) (SVHC)	Ireland: 8 hours	2 mg/m ³



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DNEL/DMEL:

Information about Ethylene glycol:
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

Information about Sodium benzoate:
DNEL workers, inhalative, systemic, long-term: 3 mg/m³
DNEL workers, inhalative, local, long-term: 0.1 mg/m³
DNEL workers, dermal, systemic, long-term: 62.5 mg/kg bw/d
DNEL consumers, inhalative, systemic, long-term: 1.5 mg/m³
DNEL consumers, inhalative, local, long-term: 0.06 mg/m³
DNEL consumers, dermal, systemic, long-term: 31.25 mg/kg bw/d
DNEL consumers, oral, systemic, long-term: 16.6 mg/kg bw/d

Information about Borates, tetra, sodium salts (Pentahydrate):
DNEL workers, inhalative, systemic, long-term: 6.7 mg/m³
DNEL workers, dermal, systemic, long-term: 316.4 mg/kg bw/d
DNEL consumers, inhalative, systemic, long-term: 3.4 mg/m³
DNEL consumers, dermal, systemic, long-term: 159.5 mg/kg bw/d
DNEL consumers, oral, systemic, long-term: 0.79 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 Sodium benzoate:
PNEC water (freshwater): 0.13 mg/L
PNEC water (marine water): 0.013 mg/L
PNEC sediment (freshwater): 1.76 mg/kg dw
PNEC sediment (marine water): 0.176 mg/kg dw
PNEC soil: 0.06 mg/kg dw
PNEC sewage treatment plant STP: 10 mg/L
PNEC oral: 300 mg/kg food and feedingstuffs

Information about Borates, tetra, sodium salts (Pentahydrate):
PNEC water (freshwater): 2.9 mg/L
PNEC water (marine water): 2.9 mg/L
PNEC soil: 5.7 mg/kg dw
PNEC sewage treatment plant STP: 10 mg/L

8.2 Exposure controls

Provide adequate ventilation, and local exhaust as needed. 10 air changes per hour.

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 EN 14387. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.



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Hand protection:	Protective gloves according to 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 EN 166.
Body protection:	Wear suitable protective clothing.
General protection and hygiene measures:	Avoid the formation of aerosol. Avoid contact with the substance. Avoid contact with skin and eyes. Do not breathe mist/vapours/spray. Handle and open container with care. Take off contaminated clothing. When using do not eat or drink. Wash hands before breaks and after work. 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

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Colour: blue-green, clear
Odour:	weak
Odour threshold:	No data available
pH:	at 20 °C: 7.2
Melting point/freezing point:	-18 °C (freezing point)
Initial boiling point and boiling range:	180 °C (estimated)
Flash point/flash point range:	approx. 122 °C (Pensky-Martens)
Evaporation rate:	No data available
Flammability:	Combustible
Explosion limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 20 °C: 1.125 kg/L
Water solubility:	at 20 °C: 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.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Explosive properties:	Not explosive
Oxidizing characteristics:	Not oxidising

9.2 Other information

Additional information:	No data available
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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 sources of ignition and heat. Heating causes rise in pressure with risk of bursting.

10.5 Incompatible materials

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

10.6 Hazardous decomposition products

Ketone, aldehydes

Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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: 1716 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: Lack of data.

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

Carcinogenicity: Lack of data.

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

Aspiration hazard: Lack of data.



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Other information: Information about Ethylene glycol:
LD50 Rat, oral: 7,712 mg/kg
ATE: 500 mg/kg
LD50 Mouse, dermal: > 3.5 mg/kg
LC50 Rat, inhalative (aerosol): 2.5 mg/L/6h
Information about Sodium benzoate:
LD50 Rat, oral: > 2,000 mg/kg
LD50 Rabbit, dermal: > 2,000 mg/kg
LC50 Rat, inhalative (dust): > 12.2 mg/L/4h
Information about Borates, tetra, sodium salts (Pentahydrate):
LD50 Rat, oral: 2,500 mg/kg (OECD 401)
LD50 Rabbit, dermal: > 2,000 mg/kg
LC50 Rat, inhalative (dust): > 2.0 mg/L/4h (OECD 403)

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Information about Ethylene glycol:
Fish toxicity:
LC50 Pimephales promelas (fathead minnow): > 72,860 mg/L/96 h
Daphnia toxicity:
EC50 Daphnia magna (Big water flea): > 100 mg/L/48h (OECD 202)

12.2 Persistence and degradability

Further details: Information about Ethylene glycol: Biodegradation: 90 - 100 %/10 d (OECD 301 A)
Effects in sewage plants: 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

No data available

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 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.



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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

ADR/RID, IMDG, IATA-DGR:

not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:

not applicable

14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

not applicable

14.5 Environmental hazards

Marine pollutant:

no

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code:

-

No data available

National regulations - EC member states

Further regulations, limitations and legal requirements:

Contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH:

Borates, tetra, sodium salts (Pentahydrate) (CAS 12179-04-3)

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

EINECS: All ingredients are listed or exempt from listing.

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.



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SECTION 16: Other information

Further information

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

H302 = Harmful if swallowed.

H319 = Causes serious eye irritation.

H360FD = May damage fertility. May damage the unborn child.

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

Abbreviations and acronyms:

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

OEL: Occupational Exposure Limit Value

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

EC50: Effective Concentration 50%

EC: European Community

EN: European Standard

EU: European Union

IATA: International Air Transport Association

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

OSHA: Occupational Safety and Health Administration

PBT: Persistent, bioaccumulative and toxic

PNEC: Predicted no-effect concentration

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

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

SCL: Specific concentration limit

STOT RE: Specific target organ toxicity - repeated exposure

SVHC: Substance of Very High Concern

TLV: Threshold Limit Value

vPvB: Very persistent and very bioaccumulative

WEL: Workplace Exposure Limit

Date of first version: 30/12/2020

Department issuing data sheet

Contact person: see section 1: Department responsible for information

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.



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