

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ADDINOL Antifreeze CHB 5050

Revision date: 27.06.2024

Product code: 796029

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

ADDINOL Antifreeze CHB 5050

UFI: JNK3-A9YS-R20Q-PPFM

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

Refrigerant. Anti-freezing agent.

1.3. Details of the supplier of the safety data sheet**Manufacturer**

Company name: ADDINOL Lube Oil GmbH
Gebäude 4609
Street: Am Haupttor
Place: D-06237 Leuna
Telephone: +49 (0) 3461 845-0 Telefax: +49 (0) 3461 845-555
E-mail: info@addinol.de
Contact person: Application Technology
Internet: www.addinol.de
Responsible Department: ADDINOL Application Technology

Supplier

Company name: GEM OILS LIMITED
Place: IRL-H12K298 Regaskin Co. Cavan
Telephone: +353 49 4378116 Telefax: +353 49 4368329
E-mail: sales@gemoils.ie
Contact person: GEM OILS LIMITED Telephone: +353 49 4378116
E-mail: sales@gemoils.ie
Internet: https://gemoils.ie/

1.4. Emergency telephone number:

Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements**Regulation (EC) No 1272/2008****Hazard components for labelling**

ethanediol; ethylene glycol

Signal word: Warning**Pictograms:****Hazard statements**

H373

May cause damage to organs through prolonged or repeated exposure.

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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 dust/fume/gas/mist/vapours/spray.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- P501 Dispose of contents/container to an appropriate recycling or disposal facility.

Additional advice on labelling

The product is classified and labelled according to EC directives or corresponding national laws.

2.3. Other hazards

- Spilled product must not leak into the ground.
- Do not allow uncontrolled leakage of product into the environment.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

| CAS No | Chemical name | | | Quantity |
|------------|---|--------------|------------------|---------------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 107-21-1 | ethanediol; ethylene glycol | | | 40 - < 60 % |
| | 203-473-3 | 603-027-00-1 | | |
| | Acute Tox. 4, STOT RE 2; H302 H373 | | | |
| 29385-43-1 | Methyl-1H-benzotriazole | | | 0.3 - < 0.5 % |
| | 249-596-6 | | 01-2119979081-35 | |
| | Repr. 2, Acute Tox. 4, Aquatic Chronic 2; H361d H302 H411 | | | |

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

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|------------|---|-----------------------------|---------------|
| | Specific Conc. Limits, M-factors and ATE | | |
| 107-21-1 | 203-473-3 | ethanediol; ethylene glycol | 40 - < 60 % |
| | dermal: LD50 = 10600 mg/kg; oral: ATE = 500 mg/kg | | |
| 29385-43-1 | 249-596-6 | Methyl-1H-benzotriazole | 0.3 - < 0.5 % |
| | dermal: LD50 = > 2000 mg/kg; oral: LD50 = ca. 720 mg/kg | | |

Further Information

Classification system: The classification corresponds to the current EC lists and is completed by information from specialist literature and company information.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

After inhalation

Move victim to fresh air. Put victim at rest and keep warm. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. In case of skin irritation, seek medical treatment. Protect skin by using skin protective cream.

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After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Do NOT induce vomiting.

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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

Ingestion causes nausea, weakness and central nervous system effects. The following symptoms may occur: Dizziness. Headache. drowsiness. Disorientation.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Foam. Extinguishing powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO₂). ketone. aldehydes.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings. Use water spray jet to protect personnel and to cool endangered containers. In case of fire and/or explosion do not breathe fumes. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

High slip hazard because of leaking or spilled product. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Avoid contact with skin, eye and clothing.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up**Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Collect in closed containers for disposal. Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Section 12: Ecological Information (non-mandatory)

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

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Advice on safe handling

Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. Take precautionary measures against static discharges. Use only antistatically equipped (spark-free) tools.

Advice on general occupational hygiene

Wash hands before breaks and after work. Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use. Do not eat, drink, smoke or sneeze at the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep the packing dry and well sealed to prevent contamination and absorption of humidity. Keep container tightly closed in a cool place. Keep/Store only in original container.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.
Keep away from: Oxidising agent, strong

Further information on storage conditions

storage temperature 5 - 40°C
Protect against: UV-radiation/sunlight, Frost, heat.

7.3. Specific end use(s)

Refrigerant. Anti-freezing agent. Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m³ | fib/cm³ | Category | Origin |
|----------|-------------------------|-----|-------|---------|---------------|--------|
| 107-21-1 | Ethylene glycol, vapour | 20 | 52 | | TWA (8 h) | |
| | | 40 | 104 | | STEL (15 min) | |

DNEL/DMEL values

| CAS No | Substance | | | |
|--------------------------|-----------------------------|----------------|----------|-------------------|
| DNEL type | | Exposure route | Effect | Value |
| 107-21-1 | ethanediol; ethylene glycol | | | |
| Worker DNEL, long-term | | inhalation | local | 35 mg/m³ |
| Worker DNEL, long-term | | dermal | systemic | 106 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | local | 7 mg/m³ |
| Consumer DNEL, long-term | | dermal | systemic | 53 mg/kg bw/day |
| 29385-43-1 | Methyl-1H-benzotriazole | | | |
| Worker DNEL, long-term | | inhalation | systemic | 21,2 mg/m³ |
| Worker DNEL, long-term | | dermal | systemic | 0,3 mg/kg bw/day |
| Consumer DNEL, long-term | | dermal | systemic | 0,01 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 0,01 mg/kg bw/day |

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PNEC values

| CAS No | Substance | |
|--|-------------------------|--------------|
| Environmental compartment | | Value |
| 29385-43-1 | Methyl-1H-benzotriazole | |
| Freshwater | | 0,008 mg/l |
| Freshwater (intermittent releases) | | 0,086 mg/l |
| Marine water | | 0,02 mg/l |
| Freshwater sediment | | 0,117 mg/kg |
| Marine sediment | | 0,292 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 39,4 mg/l |
| Soil | | 0,0187 mg/kg |

Additional advice on limit values

source:

8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaust at critical locations.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): EN 166

Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): EN ISO 374

Duration of wearing with permanent contact: 480 min

Suitable material: NBR (Nitrile rubber).

Thickness of glove material: 0.7 mm.

Wearing time with occasional contact (splashes): 30 min

Suitable material: NBR (Nitrile rubber).

Thickness of glove material: 0.4 mm

Protect skin by using skin protective cream.

Skin protection

Wear suitable protective clothing. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Cosaint riospráide le scaoire i gcoinne gás orgánach agus gaile cineál A - fiuchphointe > 65 ° C: A1: <1000 ppm; A2: <5000 ppm; A3: <10,000 ppm.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | |
|-----------------|----------------|
| Physical state: | liquid |
| Colour: | red - orange |
| Odour: | characteristic |

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Odour threshold: not determined

Melting point/freezing point:

not applicable Test method ASTM D 1120

Boiling point or initial boiling point and
boiling range:

108 °C

Flammability:

not determined

Lower explosion limits:

not determined

Upper explosion limits:

not determined

Flash point:

122 °C DIN EN ISO 2719

Auto-ignition temperature:

not determined

Decomposition temperature:

not determined

pH-Value (at 20 °C):

8,3 (50%) ASTM D 1287

Viscosity / kinematic:

not applicable

Water solubility:

easily soluble.

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

not determined

Vapour pressure:

not determined

Density (at 20 °C):

1,071 g/cm³ DIN 51757

Relative vapour density:

not determined

Particle characteristics:

not determined

9.2. Other information**Information with regard to physical hazard classes**

Explosive properties

not determined

Self-ignition temperature

Solid:

not determined

Gas:

not determined

Oxidizing properties

not determined

Other safety characteristics

Evaporation rate:

not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Do not overheat to avoid decomposition by heat.

Refer to chapter 7 No further action is necessary.

10.5. Incompatible materials

Reacts with : Oxidising agent, strong. Strong acid. Peroxides. Chlorates.

10.6. Hazardous decomposition productsIn case of fire may be liberated: Carbon monoxide Carbon dioxide (CO₂). ketone. aldehydes.

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SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

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

ATEmix calculated

ATE (oral) 1053 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No | Chemical name | | | | |
|------------|-----------------------------|--------------------|---------|---------------------|--------------------|
| | Exposure route | Dose | Species | Source | Method |
| 107-21-1 | ethanediol; ethylene glycol | | | | |
| | oral | ATE 500 mg/kg | | | |
| | dermal | LD50 10600 mg/kg | Rabbit | GESTIS | |
| 29385-43-1 | Methyl-1H-benzotriazole | | | | |
| | oral | LD50 ca. 720 mg/kg | Rat | Study report (1983) | OECD Guideline 401 |
| | dermal | LD50 > 2000 mg/kg | Rabbit | Study report (1984) | OECD Guideline 402 |

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: 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.

STOT-single exposure

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

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (ethanediol; ethylene glycol)

Aspiration hazard

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

11.2. Information on other hazards**Endocrine disrupting properties**

not applicable

SECTION 12: Ecological information**12.1. Toxicity**

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

Mixture not tested.

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| CAS No | Chemical name | | | | | |
|------------|--------------------------|-------|-----------|---------|--|---|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 29385-43-1 | Methyl-1H-benzotriazole | | | | | |
| | Acute fish toxicity | LC50 | 55 mg/l | 96 h | Cyprinodon variegatus | Study report (2003) other: The test procedure is based on te |
| | Acute algae toxicity | ErC50 | 75 mg/l | 72 h | Raphidocelis subcapitata | Study report (1994) OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 | 15,8 mg/l | 48 h | other aquatic crustacea: Daphnia galeata | Environ Sci Pollut Res 19:1781-1790 (201) OECD Guideline 202 |
| | Crustacea toxicity | NOEC | 18,4 mg/l | 21 d | Daphnia magna | Study report (1995) other: "Daphnia Reproduction Test" of OE |

12.2. Persistence and degradability

Product is partially biodegradable.

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|------------|-----------------------------|---------|
| 107-21-1 | ethanediol; ethylene glycol | -1,36 |
| 29385-43-1 | Methyl-1H-benzotriazole | 1,079 |

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Must not be disposed of with domestic refuse. Do not allow to enter into surface water or drains.

List of Wastes Code - residues/unused products

160114 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08); antifreeze fluids containing hazardous substances; hazardous waste

Contaminated packaging

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Dispose of waste according to applicable legislation. Packing which cannot be properly cleaned must be thrown away.

SECTION 14: Transport information

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Land transport (ADR/RID)

- 14.1. UN number or ID number: -
- 14.2. UN proper shipping name: -
- 14.3. Transport hazard class(es): -
- 14.4. Packing group: -

Inland waterways transport (ADN)

- 14.1. UN number or ID number: -
- 14.2. UN proper shipping name: -
- 14.3. Transport hazard class(es): -
- 14.4. Packing group: -

Marine transport (IMDG)

- 14.1. UN number or ID number: -
- 14.2. UN proper shipping name: -
- 14.3. Transport hazard class(es): -
- 14.4. Packing group: -

Air transport (ICAO-TI/IATA-DGR)

- 14.1. UN number or ID number: -
- 14.2. UN proper shipping name: -
- 14.3. Transport hazard class(es): -
- 14.4. Packing group: -

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Other applicable information

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

Directive 2004/42/EC on VOC in paints and varnishes: < 50%

National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,9,15.

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Abbreviations and acronyms

Acute Tox: Acute toxicity
Repr: Reproductive toxicity
STOT RE: Specific target organ toxicity - repeated exposure
Aquatic Chronic: Chronic aquatic hazard
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ASTM - American Society for the Testing of Materials; ATE - Acute Toxicity Estimates; bw - Body weight; CAO - Cargo Aircraft Only; CAS - Chemical Abstracts Service; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL - Derived No-Effect Level; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); EG - European Union; EN - European standards; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n;o;s; - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT - Persistent, Bioaccumulative and Toxic substance; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulation concerning the International Carriage of Dangerous Goods by Rail; RQ - Reportable Quantity; SADT - Self- Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

| | |
|-----------------|--------------------------|
| Classification | Classification procedure |
| STOT RE 2; H373 | Calculation method |

Relevant H and EUH statements (number and full text)

H302 Harmful if swallowed.
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.

Further Information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)