

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ADDINOL Antifreeze

Revision date: 14.01.2026

Product code: 796006

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

ADDINOL Antifreeze

UFI: RNRD-7DR7-JD74-G17J

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	
	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)

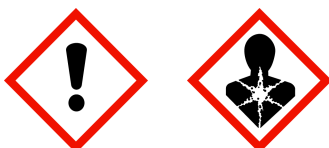
SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**Acute Tox. 4; H302
STOT RE 2; H373

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

Signal word: Warning**Pictograms:**

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Hazard statements

- H302 Harmful if swallowed.
 H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- P102 Keep out of reach of children.
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P264 Wash hands thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 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

Product is classified and labelled in accordance with EC regulations or the 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	Ethenediol			80 - < 100 %
	203-473-3	603-027-00-1		
	Acute Tox. 4, STOT RE 2; H302 H373			

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	Ethenediol	80 - < 100 %
	dermal: LD50 = > 3500 mg/kg; oral: LD50 = 7712 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. Seek medical attention if problems persist.

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.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids

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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). Powder.

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, eyes and clothes. Provide adequate ventilation.

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

Keep away from sources of ignition - No smoking. The following must be prevented: inhalation. Provide adequate ventilation as well as local exhaustion at critical locations. Wear personal protection equipment. 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.

Further information on handling

Do not breathe mist/vapours/spray.

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/m ³	fib/cm ³	Category	Origin
107-21-1	1,2-Dihydroxyethane, vapour	20	52		TWA (8 h)	
		40	104		STEL (15 min)	
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	
		40	104		STEL (15 min)	
107-21-1	Ethylene glycol, vapour	20	52		TWA (8 h)	
		40	104		STEL (15 min)	

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
107-21-1	Ethanediol			
Worker DNEL, long-term		inhalation	local	35 mg/m ³
Worker DNEL, long-term		dermal	systemic	106 mg/kg bw/day
Consumer DNEL, long-term		inhalation	local	7 mg/m ³
Consumer DNEL, long-term		dermal	systemic	53 mg/kg bw/day

Additional advice on limit values

Does not contain substances above concentration limits fixing an occupational exposure limit.

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8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaustion 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): DIN EN ISO 16321

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 scagaire 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:	hellblau
Odour:	characteristic
Odour threshold:	not determined

	Test method
Melting point/freezing point:	not applicable
Boiling point or initial boiling point and boiling range:	180 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	Non-flammable.
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value (at 20 °C):	8,6 DIN 51369
Viscosity / kinematic:	not determined
Water solubility:	easily soluble.

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Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

not determined

Vapour pressure:

not determined

Density (at 20 °C):

1,109 g/cm³ DIN 51757

Relative vapour density:

No data available

Particle characteristics:

No data available

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.

10.6. Hazardous decomposition productsIn case of fire may be liberated: Carbon monoxide Carbon dioxide (CO₂). ketone. aldehydes.**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Harmful if swallowed.

ATEmix calculated

ATE (oral) 512,8 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
107-21-1	Ethanediol				
	oral	LD50 mg/kg	7712	Rat	Study report (1968) according to BASF-internal standards
	dermal	LD50 mg/kg	> 3500	Mouse	Fundamental and Applied Toxicology 27: 1 LD50 derived from developmental toxicity

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)

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.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
107-21-1	Ethanediol					
	Acute fish toxicity	LC50 mg/l	53000	96 h	Pimephales promelas	Publication (1983) other: ASTM Subcommittee on Safety to Aq
	Acute algae toxicity	ErC50 mg/l	6500 - 13000	96 h	Raphidocelis subcapitata	Study report (1982) other: EPA 600/9-78-018, 1978
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	Study report (1998) OECD Guideline 202
	Fish toxicity	NOEC mg/l	> 40	28 d	Menidia peninsulae	Publication (1985) other: ASTM E-47.01
	Crustacea toxicity	NOEC mg/l	8590	7 d	Ceriodaphnia dubia	Environ. Toxicology and Chemistry, Vol. other: EPA 600/4-89/001. U.S. Environmen
	Acute bacteria toxicity	EC50 mg/l ()	> 1000	3 h	activated sludge, domestic	Chemosphere 14(9), 1239-1251 (1985) OECD Guideline 209

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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	Ethenediol	-1,36

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.

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**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:** -

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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

National regulatory information

Water hazard class (D): 1 - slightly 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): 2,5,6,7,8,9,12.

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Abbreviations and acronyms

Acute Tox: Acute toxicity

STOT RE: Specific target organ toxicity - repeated exposure

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
Acute Tox. 4; H302	Calculation method
STOT RE 2; H373	Calculation method

Relevant H and EUH statements (number and full text)

H302

Harmful if swallowed.

H373

May cause damage to organs through prolonged or repeated exposure.

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.)