



# Safety Data Sheet

according to UK REACH Regulation

## ADDINOL Antifreeze FG

Revision date: 14.12.2023

Product code: 796009

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### 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

Provide fresh air. 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. Take off immediately all 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 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

No information available.

#### 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 (CO<sub>2</sub>). Atomized water.

##### 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 (CO<sub>2</sub>).

#### 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.

#### 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

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**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****Advice on safe handling**

Work in well-ventilated zones or use proper respiratory protection. Avoid oil mist. If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid contact with skin, eyes and clothes. Keep out of reach of children.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. 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. Provide adequate ventilation as well as local exhaust at critical locations. Keep/Store only in original container.

**Hints on joint storage**

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

**Further information on storage conditions**

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

**7.3. Specific end use(s)**

Refrigerant. Further information: see technical data sheet.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

| CAS No  | Substance                      | ppm | mg/m <sup>3</sup> | fibres/ml | Category  | Origin |
|---------|--------------------------------|-----|-------------------|-----------|-----------|--------|
| 57-55-6 | Propane-1,2-diol, particulates | -   | 10                |           | TWA (8 h) | WEL    |

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**PNEC values**

| CAS No   | Substance        |            |
|--|------------------|------------|
| Environmental compartment                        |                  | Value      |
| 57-55-6  | Propane-1,2-diol |            |
| Freshwater                                       |                  | 260 mg/l   |
| Freshwater (intermittent releases)               |                  | 183 mg/l   |
| Marine water                                     |                  | 26 mg/l    |
| Freshwater sediment                              |                  | 572 mg/kg  |
| Marine sediment                                  |                  | 57,2 mg/kg |
| Micro-organisms in sewage treatment plants (STP) |                  | 20000 mg/l |
| Soil   |                  | 50 mg/kg   |

**Additional advice on limit values**

Recommended limit value for oil mist

TWA: 5 mg/m<sup>3</sup>STEL: 10 mg/m<sup>3</sup>

The product does not contain any relevant quantities of substances with legally established exposure limitation.

**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): 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. Breathing protection with filter against organic gases and vapours type A - boiling point &gt; 65°C: A1: &lt; 1000 ppm; A2: &lt; 5000 ppm; A3: &lt; 10000 ppm

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

|                  |                |
|------------------|----------------|
| Physical state:  | liquid         |
| Colour:          | colourless     |
| Odour:           | characteristic |
| Odour threshold: | not determined |

|   | <b>Test method</b>               |
|---|----------------------------------|
| Melting point/freezing point:                             | No data available                |
| Boiling point or initial boiling point and boiling range: | > 150 °C ASTM D 1120             |
| Flammability:   | No data available                |
| Lower explosion limits:                                   | 2,6 vol. %                       |
| Upper explosion limits:                                   | 12,6 vol. %                      |
| Flash point:  | ca. 109 °C DIN EN ISO 22719      |
| Auto-ignition temperature:                                | No data available                |
| Decomposition temperature:                                | No data available                |
| pH-Value (at 500 g/l, 20 °C):                             | 8,0 - 9,0 ASTM D 1287            |
| Viscosity / kinematic:<br>(at 20 °C)                      | 70 mm <sup>2</sup> /s DIN 51562  |
| Water solubility:   | easily soluble.                  |
| Solubility in other solvents                              |                                  |
| No data available   |                                  |
| Partition coefficient n-octanol/water:                    | No data available                |
| Vapour pressure:  | No data available                |
| Density (at 20 °C):                                       | 1,06 g/cm <sup>3</sup> DIN 51757 |
| Relative vapour density:                                  | No data available                |

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

Explosive properties

No data available

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

No data available

**Other safety characteristics**

Evaporation rate:

No data available

**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.

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### 10.5. Incompatible materials

Reacts with: Oxidising agent, strong

### 10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in GB CLP Regulation

#### **Acute toxicity**

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

#### **ATEmix calculated**

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

#### **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**

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

#### **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.

### 12.2. Persistence and degradability

Easily biodegradable (concerning to the criteria of the OECD): 87 - 92% (OECD 301 D)

### 12.3. Bioaccumulative potential

No data available

### 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 UK REACH.

### 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

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**Further information**

Do not allow uncontrolled leakage of product into the environment.

**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**

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

**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:** -  
**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****National regulatory information**

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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): 2,3,4,5,6,7,9,10,11,12,13,16.

**Abbreviations and acronyms**

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

**Further Information**

The mixture is classified as not 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.)*