

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

BIZOL Coolant G12+

Creation date 20th May 2022
Revision date Version 1.0

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

- 1.1. Product identifier**
Substance / mixture BIZOL Coolant G12+
mixture
UFI 44E4-MTH3-900D-4DQ3
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Mixture's intended use
Special engine coolant
Main intended use
PC-TEC-7 Heat transfer fluids
Mixture uses advised against
The product should not be used in ways other than those referred in Section 1.
- 1.3. Details of the supplier of the safety data sheet**
Distributor
Name or trade name BIZOL Germany GmbH
Address Martin Buber Str. 12, Berlin, D-14163
Germany
VAT Reg No DE311552841
Phone +49 (0) 30 80 48 69-0
E-mail info@bizol.de
Competent person responsible for the safety data sheet
Name BIZOL Germany GmbH
E-mail info@bizol.de
- 1.4. Emergency telephone number**
European emergency number: 112

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**
Classification of the mixture in accordance with Regulation (EC) No 1272/2008
The mixture is classified as dangerous.
Acute Tox. 4, H302
STOT RE 2, H373 (kidneys)
Full text of all classifications and hazard statements is given in the section 16.
Most serious adverse physico-chemical effects
Unknown.
Most serious adverse effects on human health and the environment
May cause damage to organs through prolonged or repeated exposure. Harmful if swallowed.

- 2.2. Label elements**
Hazard pictogram



Signal word
Warning

Hazardous substances

ethanediol

Hazard statements

H302 Harmful if swallowed.
H373 May cause damage to the kidneys through prolonged or repeated exposure.



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Precautionary statements

P102 Keep out of reach of children.
P264 Wash ruce thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P501 Dispose of contents/container to in accordance with local regulations by handing over to a person authorized to dispose of waste or a site designated by the town.

Requirements for child-resistant fastenings and tactile warning of danger

Container must carry a tactile warning of danger.

2.3. Other hazards

Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 603-027-00-1 CAS: 107-21-1 EC: 203-473-3	ethanediol	>60	Acute Tox. 4, H302 STOT RE 2, H373	1
Index: 607-230-00-6 CAS: 149-57-5 EC: 205-743-6	2-ethylhexanoic acid	<2	Repr. 2, H361d	

Notes

- 1 Substance with a Union workplace exposure limit.
Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists. Note: If the product sticks to the skin and cannot be removed using water and cleaning products or edible oil, do not use force and leave for specialized treatment.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. Provide medical treatment, specialized if possible. Note: If the product sticks to the skin and cannot be removed using water and cleaning products or edible oil, do not use force and leave for specialized treatment.

If swallowed

Rinse mouth with water, drink about 2dl of water if conscious and seek immediate medical attention.

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- 4.2. Most important symptoms and effects, both acute and delayed**
- If inhaled**
Possible irritation of airways, cough, headache.
- If on skin**
Not expected.
- If in eyes**
Not expected.
- If swallowed**
Irritation, nausea.
- 4.3. Indication of any immediate medical attention and special treatment needed**
Symptomatic treatment.

SECTION 5: Firefighting measures

- 5.1. Extinguishing media**
- Suitable extinguishing media**
Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.
- Unsuitable extinguishing media**
Water - full jet.
- 5.2. Special hazards arising from the substance or mixture**
Fire produces heavy, black smoke, with potential development of carbon monoxide and dioxide and other toxic gases. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.
- 5.3. Advice for firefighters**
Use a self-contained breathing apparatus and full-body protective clothing. Closed containers with the product near the fire should be cooled with water. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures**
Provide sufficient ventilation. Use gloves in case of prolonged contact. Follow the instructions in the Sections 7 and 8.
- 6.2. Environmental precautions**
Prevent contamination of the soil and entering surface or ground water.
- 6.3. Methods and material for containment and cleaning up**
Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. Dispose of the collected material according to the instructions in the section 13. Upon an escape of large quantities of the product, inform the Fire Department and the Environmental Department of the Municipal Authority with the extended scope of competencies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.
- 6.4. Reference to other sections**
See the Section 7, 8 and 13.

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling**
Prevent formation of gases and vapours in flammable or explosive concentrations and concentrations exceeding the occupational exposure limits. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. No smoking. Protect against direct sunlight. Electrostatic charge may be formed during use; use only earthed piping (tubing) when repumping. Use of antistatic clothes and footwear is recommended. Use non-sparking tools. Do not inhale gases and vapours. Prevent contact with skin and eyes. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.
- 7.2. Conditions for safe storage, including any incompatibilities**
Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Do not expose to sunlight.



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Storage class 10 - Other combustible liquids

The specific requirements or rules relating to the substance/mixture

Solvent vapours are heavier than air and accumulate especially near the floor where they may form an explosive mixture with the air.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union

EU limits

Substance name (component)	Type	Value
ethanediol (CAS: 107-21-1)	OEL 8 hours	52 mg/m ³
	OEL 8 hours	20 ppm
	OEL 15 minutes	104 mg/m ³
	OEL 15 minutes	40 ppm

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. If exposure limits cannot be observed in this mode, suitable protection of airways must be used. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

Skin protection

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Use barrier creams for skin protection, they should, however, not be applied once exposure has occurred. Observe other recommendations of the manufacturer. Other protection: Protective antistatic clothing made of natural fibres (cotton) or synthetic fibres resistant to elevated temperatures. Contaminated skin should be washed thoroughly.

Respiratory protection

Halfmask with a filter against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of substances are exceeded or in a poorly ventilated environment.

Thermal hazard

not available

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	pink
Odour	data not available
Melting point/freezing point	>-30 °C
Boiling point or initial boiling point and boiling range	>170 °C
Flammability	data not available
Lower and upper explosion limit	data not available
Flash point	110 °C
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	7-9 (undiluted)
Kinematic viscosity	3-6 mm ² /s at 40 °C
Solubility in water	data not available
Partition coefficient n-octanol/water (log value)	<2,0



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Vapour pressure data not available
Density and/or relative density
Density 1,12-1,16 g/cm³ at 20 °C
Form liquid

9.2. Other information
not available

SECTION 10: Stability and reactivity

10.1. Reactivity

The mixture is flammable.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

The product is stable under normal conditions.

10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents. Thereby a dangerous exothermic reaction will be prevented.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide, heavy smoke and nitrogen oxides are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

No toxicological data is available for the mixture.

Acute toxicity

Harmful if swallowed.
ethanediol

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD ₅₀	5840 mg/kg		Rat		Sicherheitsdatenblatt vom Lieferanten
Dermal	LD ₅₀	9530 mg/kg		Rat		Sicherheitsdatenblatt vom Lieferanten
Inhalation	LC ₅₀	2.5 g/l	6 hour	Rat (Rattus norvegicus)	F/M	Sicherheitsdatenblatt vom Lieferanten
Oral	LD ₅₀	5840 mg/kg		Rat		Sicherheitsdatenblatt vom Lieferanten
Dermal	LD ₅₀	9530 mg/kg		Rat		Sicherheitsdatenblatt vom Lieferanten



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Skin corrosion/irritation

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

Route of exposure	Result	Time of exposure	Species	Source
Dermal	No effect		Guinea-pig (<i>Cavia aperea</i> f. <i>porcellus</i>)	Sicherheitsdatenblatt vom Lieferanten

Serious eye damage/irritation

Based on available data the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

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

Result	Time of exposure	Specific target organ	Species	Sex	Source
Negative					Sicherheitsdatenblatt vom Lieferanten

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

Toxicity for specific target organ - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Based on available data the classification criteria are not met.

11.2. Information on other hazards

not available

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

ethanediol

Parameter	Value	Time of exposure	Species	Environment	Source
LC ₅₀	18000 - 46000 mg/l	96 hour	Fishes		Sicherheitsdatenblatt vom Lieferanten
IC ₅₀	>100 mg/l	72 hour	Algae		Sicherheitsdatenblatt vom Lieferanten
EC ₅₀	>100 mg/l	96 hour	Invertebrates (<i>Daphnia magna</i>)		Sicherheitsdatenblatt vom Lieferanten
LC ₅₀	18000 - 46000 mg/l	96 hour	Fishes		Sicherheitsdatenblatt vom Lieferanten

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ethanediol

Parameter	Value	Time of exposure	Species	Environment	Source
IC ₅₀	>100 mg/l	72 hour	Algae		Sicherheitsdatenblatt vom Lieferanten

Chronic toxicity

ethanediol

Parameter	Value	Time of exposure	Species	Environment	Source
NOEC	15380 mg/l	72 day	Fishes (Oncorhynchus mykiss)		Sicherheitsdatenblatt vom Lieferanten
NOEC	8590 mg/l	72 day	Invertebrates (Ceriodaphnia dubia)		Sicherheitsdatenblatt vom Lieferanten

12.2. Persistence and degradability

Biodegradability

ethanediol

Parameter	Method	Value	Time of exposure	Environment	Result	Source
	OECD 301A	>90 %	10 day		Easily biodegradable	Sicherheitsdatenblatt vom Lieferanten

The substance is not biodegradable.

12.3. Bioaccumulative potential

Insignificant.

12.4. Mobility in soil

The product is soluble and mobile in water and soil. Contamination of water courses may occur in the event of rain.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

not available

12.7. Other adverse effects

not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.



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SECTION 14: Transport information

- 14.1. UN number or ID number**
not subject to transport regulations
- 14.2. UN proper shipping name**
not relevant
- 14.3. Transport hazard class(es)**
not relevant
- 14.4. Packing group**
not relevant
- 14.5. Environmental hazards**
not relevant
- 14.6. Special precautions for user**
Reference in the Sections 4 to 8.
- 14.7. Maritime transport in bulk according to IMO instruments**
not relevant

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.
- 15.2. Chemical safety assessment**
not available

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

- H302 Harmful if swallowed.
H361d Suspected of damaging the unborn child.
H373 May cause damage to the kidneys through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.

Guidelines for safe handling used in the safety data sheet

- P102 Keep out of reach of children.
P264 Wash ruce thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P501 Dispose of contents/container to in accordance with local regulations by handing over to a person authorized to dispose of waste or a site designated by the town.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

- ADR European agreement concerning the international carriage of dangerous goods by road
BCF Bioconcentration Factor
CAS Chemical Abstracts Service
CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC₅₀ Concentration of a substance when it is affected 50% of the population
EINECS European Inventory of Existing Commercial Chemical Substances
EmS Emergency plan

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ES	Identification code for each substance listed in EINECS
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC ₅₀	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC ₅₀	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD ₅₀	Lethal dose of a substance in which it can be expected death of 50% of the population
log Kow	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution from Ships
NOEC	No observed effect concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
Acute Tox.	Acute toxicity
Repr.	Reproductive toxicity
STOT RE	Specific target organ toxicity - repeated exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.