

Safety data sheet

Page: 1/14

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 30.04.2014

Version: 3.0

Product: **Glysantin® G40®**

(ID no. 50688606/SDS_GEN_GB/EN)

Date of print 01.05.2014

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

1.1. Product identifier

Glysantin® G40®

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

Relevant identified uses: engine coolant

1.3. Details of the supplier of the safety data sheet

Company:BASF SE
67056 Ludwigshafen
GERMANYContact address:BASF plc
PO Box 4, Earl Road, Cheadle Hulme,
Cheadle, Cheshire
SK8 6QG, UNITED KINGDOM

Telephone: +44 161 485-6222

E-mail address: product-safety-north@basf.com

1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]Acute Tox. 4 (oral)
STOT RE (Kidney) 2According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:

Harmful if swallowed.

Harmful: danger of serious damage to health by prolonged exposure if swallowed.

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elementsGlobally Harmonized System, EU (GHS)

Pictogram:



Signal Word:

Warning

Hazard Statement:

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

Precautionary Statements (Prevention):

P260	Do not breathe dust/gas/mist/vapours.
P270	Do not eat, drink or smoke when using this product.
P264	Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

P311	Call a POISON CENTER or doctor/physician.
P301 + P330	IF SWALLOWED: rinse mouth.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.
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According to Regulation (EC) No 1272/2008 [CLP]

Hazard determining component(s) for labelling: ETHANE-1,2-DIOL/ETHYLENEGLYCOL

According to Directive 67/548/EEC or 1999/45/EC

Directive 1999/45/EC ('Preparation Directive')

Hazard symbol(s)

Xn Harmful.



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R-phrases(s)

R22

Harmful if swallowed.

R48/22

Harmful: danger of serious damage to health by prolonged exposure if swallowed.

S-phrases(s)

S2

Keep out of the reach of children.

S24/25

Avoid contact with skin and eyes.

S46

If swallowed, seek medical advice immediately and show this container or label.

Hazard determining component(s) for labelling: ETHANE-1,2-DIOL/ETHYLENEGLYCOL

2.3. Other hazardsAccording to Regulation (EC) No 1272/2008 [CLP]

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

SECTION 3: Composition/Information on Ingredients**3.1. Substances**

Not applicable

3.2. MixturesChemical nature

ethanediol; ethylene glycol

inhibitors

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

ethanediol; ethylene glycol

Content (W/W): > 90 %

CAS Number: 107-21-1

EC-Number: 203-473-3

REACH registration number: 01-

2119456816-28

INDEX-Number: 603-027-00-1

Acute Tox. 4 (oral)

STOT RE (Kidney) 2

H302, H373

Hazardous ingredients

according to Directive 1999/45/EC

ethanediol; ethylene glycol

Content (W/W): > 90 %

CAS Number: 107-21-1

EC-Number: 203-473-3

REACH registration number: 01-2119456816-28

INDEX-Number: 603-027-00-1

Hazard symbol(s): Xn

R-phrases: 22, 48/22

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

Remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention. Administer 50 ml of pure ethanol in a drinkable concentration.

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Further important symptoms and effects are so far not known.

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

water spray, dry powder, foam

5.2. Special hazards arising from the substance or mixture

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

SECTION 6: Accidental Release Measures**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective clothing. Breathing protection required.

6.2. Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

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

No special measures necessary provided product is used correctly.

Protection against fire and explosion:

Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

The product in undamaged packing need not be stored separately.

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

107-21-1: ethanediol; ethylene glycol

TWA value 52 mg/m³ ; 20 ppm (OEL (EU))

indicative

STEL value 104 mg/m³ ; 40 ppm (OEL (EU))

indicative

Skin Designation (OEL (EU))

The substance can be absorbed through the skin.

TWA value 10 mg/m³ (WEL/EH 40 (UK)), Particulate

TWA value 52 mg/m³ ; 20 ppm (WEL/EH 40 (UK)), vapour

STEL value 104 mg/m³ ; 40 ppm (WEL/EH 40 (UK)), vapour

Skin Designation (WEL/EH 40 (UK)), Particulate

The substance can be absorbed through the skin.

Skin Designation (WEL/EH 40 (UK)), vapour

The substance can be absorbed through the skin.

8.2. Exposure controls

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Combination filter for gases/vapours of organic compounds and solid and liquid particles (f.e. EN 14387 Type A-P2)

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials short-term contact and/or splashes (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN 374)

butyl rubber (butyl) - 0.7 mm coating thickness

nitrile rubber (NBR) - 0.4 mm coating thickness

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. No eating, drinking, smoking or tobacco use at the place of work.

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

Form:	liquid	
Colour:	violet	
Odour:	product specific	
Odour threshold:	No applicable information available.	
pH value:	approx. 8 (measured with the undiluted substance)	(ASTM D1287)
Melting point:	< -18 °C	(DIN ISO 3016)
Boiling point:	> 160 °C (1,013 hPa)	(ASTM D1120)
Flash point:	> 124 °C	(DIN EN 22719; ISO 2719)
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability:	not flammable	
Lower explosion limit:	3.4 %(V) (20 °C)	(DIN 51649-1, air)
Upper explosion limit:	15.1 %(V) (20 °C)	(DIN 51649-1, air)
Ignition temperature:	420 °C	(DIN 51794)
Vapour pressure:	0.2 hPa (20 °C)	
Density:	1.122 - 1.125 g/cm ³ (20 °C)	(DIN 51757)
Solubility in water:	readily soluble	
Solubility (qualitative) solvent(s):	polar solvents soluble	
Partitioning coefficient n-octanol/water (log Kow):	Study scientifically not justified.	
Self ignition:	not self-igniting	
Thermal decomposition:	No decomposition if correctly stored and handled.	
Viscosity, kinematic:	20 - 30 mm ² /s (20 °C)	(DIN 51562)
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	

9.2. Other information

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 30.04.2014

Version: 3.0

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Date of print 01.05.2014

Self heating ability: It is not a substance capable of spontaneous heating.

Hygroscopy: hygroscopic

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

SECTION 10: Stability and Reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: No corrosive effect on metal.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

10.4. Conditions to avoid

Avoid open flames.

10.5. Incompatible materials

Substances to avoid:

strong oxidizing agents

10.6. Hazardous decomposition products

Hazardous decomposition products:

No hazardous decomposition products known.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after single ingestion. Of low toxicity after short-term skin contact.

Experimental/calculated data:

LD (human) (oral): approx. 1,600 mg/kg

Irritation

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 30.04.2014

Version: 3.0

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Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant

Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies. Human data do not fully exclude a skin sensitizing potential.

Carcinogenicity

Assessment of carcinogenicity:

The whole of the information assessable provides no indication of a carcinogenic effect.

Developmental toxicity

Information on: ethanediol; ethylene glycol

Assessment of teratogenicity:

In animal studies the substance caused malformations when given at high doses.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Information on: ethanediol; ethylene glycol

Assessment of repeated dose toxicity:

The substance may cause damage to the kidney after repeated ingestion. The substance may cause damage to the kidney after repeated skin contact with high doses.

Other relevant toxicity information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity to fish:

LC50 (96 h) > 100 mg/l, *Leuciscus idus*

Aquatic invertebrates:

EC50 (48 h) > 100 mg/l, *Daphnia magna*

Aquatic plants:

EC50 (72 h) > 100 mg/l, algae

Microorganisms/Effect on activated sludge:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

12.2. Persistence and degradability

Elimination information:

> 70 % DOC reduction (28 d) (OECD 301 A (new version)) Readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation potential:

Accumulation in organisms is not to be expected.

12.4. Mobility in soil

Assessment transport between environmental compartments:

The substance will not evaporate into the atmosphere from the water surface.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

12.7. Additional information

Other ecotoxicological advice:

The product has not been tested. The statement has been derived from the properties of the individual components.

Do not release untreated into natural waters.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

The waste codes are manufacturer's recommendations based on the designated use of the product. Other use and special waste disposal treatment on customer's location may require different waste-code assignments.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

Waste key:

16 01 14⁺ antifreeze fluids containing dangerous substances

Contaminated packaging:

Untampered packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

SECTION 14: Transport Information

Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Inland waterway transport

ADN

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known
Transport in inland waterway vessel:	Not evaluated

Sea transport

IMDG

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Air transport

IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

14.1. UN number

See corresponding entries for "UN number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 30.04.2014

Version: 3.0

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(ID no. 50688606/SDS_GEN_GB/EN)

Date of print 01.05.2014

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15: Regulatory Information

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

This product is classified under the Chemicals (Hazard Information and Packaging) Regulations, (CHIP) (United Kingdom).

15.2. Chemical Safety Assessment

Chemical Safety Assessment not yet performed due to registration timelines

SECTION 16: Other Information

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Acute Tox. 4 (oral)
STOT RE (Kidney) 2

Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

Xn	Harmful.
22	Harmful if swallowed.
48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
Acute Tox.	Acute toxicity
STOT RE	Specific target organ toxicity — repeated exposure
H302	Harmful if swallowed.
H373	May cause damage to organs (Kidney) through prolonged or repeated exposure.

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If you have any queries relating to this MSDS, its contents or any other product safety related questions, please write to the following e-mail address: product-safety-north@basf.com

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.