

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 09.02.2017

Version: 4.5

Product: **GLYSANTIN® G48® ReadyMix/50 blue-green**

(ID no. 30197551/SDS_GEN_EU/EN)

Date of print 28.02.2018

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

1.1. Product identifier

GLYSANTIN® G48® ReadyMix/50 blue-green

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

GERMANY

Fuel and Lubricant Solutions

Telephone: +49 621 60-22068

E-mail address: product-safety-auto-refinery@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) 2

H302, H373

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

2.2. Label elements

Globally 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):

P314

Get medical advice/attention if you feel unwell.

P301 + P312

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330

Rinse mouth.

Precautionary Statements (Disposal):

P501

Dispose of contents/container to hazardous or special waste collection point.

According to Regulation (EC) No 1272/2008 [CLP]

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

2.3. Other hazards

According 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. Mixtures

Chemical nature

This product contains (a) substance(s) included on the candidate list according to article 59 (1,10) of regulation EC No. 1907/2006 ('REACH') in a concentration equal or above 0.1% w/w: disodium tetraborate pentahydrate; borax pentahydrate

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

ethanediol; ethylene glycol

Content (W/W): $\geq 40\%$ - $\leq 50\%$	Acute Tox. 4 (oral)
CAS Number: 107-21-1	STOT RE (Kidney) 2
EC-Number: 203-473-3	H302, H373
REACH registration number: 01-2119456816-28	
INDEX-Number: 603-027-00-1	

2-ethylhexanoic acid, sodium salt

Content (W/W): $\geq 1\%$ - $\leq 2\%$	Repr. 2 (unborn child)
CAS Number: 19766-89-3	H361d
EC-Number: 243-283-8	

disodium tetraborate pentahydrate; borax pentahydrate

Content (W/W): $\geq 0.3\%$ - $\leq 1\%$	Eye Dam./Irrit. 2
CAS Number: 12179-04-3	Repr. 1B (fertility)
EC-Number: 215-540-4	Repr. 1B (unborn child)
REACH registration number: 01-2119490790-32	H319, H360FD

Specific concentration limit:

Repr. 1B: $\geq 6.5\%$

For the classifications not written out in full in this section, including the hazard classes 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:

Keep patient calm, remove to fresh air, 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.

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: Symptomatic treatment (decontamination, vital functions).

Antidote: Administer ethanol.

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

Further information:

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.

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:

No special precautions necessary.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and 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.

| 149-57-5: 2-ethylhexanoic acid

12179-04-3: disodium tetraborate pentahydrate; borax pentahydrate

8.2. Exposure controls

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

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.

Environmental exposure controls

For information regarding environmental exposure controls, see Section 6.

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

Form:	aqueous solution
Colour:	blue-green
Odour:	product specific
Odour threshold:	No applicable information available.
pH value:	approx. 8
solidification point:	< -38 °C
Boiling point:	> 100 °C
Flash point:	(DIN EN 22719; ISO 2719)
	not applicable
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.

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Flammability:	not flammable	
Lower explosion limit:	For liquids not relevant for classification and labelling., The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Ignition temperature:		(DIN 51794)
Vapour pressure:	not applicable approx. 0.02 mbar (20 °C)	
Density:	1.07 g/cm ³ (15 °C)	(ISO 2811-3)
Solubility in water:	readily soluble (15 °C)	
Solubility (qualitative) solvent(s):	organic solvents soluble	
Partitioning coefficient n-octanol/water (log Kow):	Study scientifically not justified.	
Self ignition:	not self-igniting	
Thermal decomposition:	No decomposition if used as directed.	
Viscosity, dynamic:	not determined	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	

9.2. Other information

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

Hygroscopy: Non-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.

Formation of flammable gases: Remarks:

Forms no flammable gases in the presence of water.

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

No conditions to avoid anticipated.

10.5. Incompatible materials

Substances to avoid:
strong oxidizing agents

10.6. Hazardous decomposition products

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Experimental/calculated data:
LD50 rat (oral): > 2,000 mg/kg

Irritation

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant

Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:
Based on available Data, the classification criteria are not met.

Germ cell mutagenicity

No data available.

Carcinogenicity

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

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Reproductive toxicity

No data available.

Developmental toxicity

Information on: 1,2-Ethanediol

Assessment of teratogenicity:

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

Experiences in humans

Information on: 1,2-Ethanediol

Experimental/calculated data:

mean lethal dose: 1.2 - 1.5 g/kg , oral, Adults

consciousness is affected, kidney damage, Damage to the central nervous system:

The symptoms/diagnosis/findings mentioned may result with smaller doses.

Specific target organ toxicity (single exposure)

No data available.

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

No data available.

Aspiration hazard

No data available.

Other relevant toxicity information

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

Information on: 1,2-Ethanediol

There is no reason to fear a risk of damage to the developing embryo or fetus when the MAK value is adhered to.

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

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity to fish:

LC50 (96 h) > 100 mg/l, Fish

Aquatic invertebrates:

EC50 (48 h) > 100 mg/l, daphnia

Aquatic plants:

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

12.2. Persistence and degradability

Assessment biodegradation and elimination (H₂O):

The substance can be virtually eliminated from water in suitable effluent treatment plants by biodegradation, stripping and mechanical separation.

12.3. Bioaccumulative potential

Bioaccumulation potential:

Accumulation in organisms is not to be expected.

12.4. Mobility in soil

Assessment transport between environmental compartments:

Volatility: 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.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.
Observe national and local legal requirements.

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.

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

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 MARPOL 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

Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 3

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 hazard classes and the hazard statements, if mentioned in section 2 or 3:

Acute Tox.	Acute toxicity
STOT RE	Specific target organ toxicity — repeated exposure
Repr.	Reproductive toxicity
Eye Dam./Irrit.	Serious eye damage/eye irritation
H302	Harmful if swallowed.
H373	May cause damage to organs (Kidney) through prolonged or repeated exposure.
H361d	Suspected of damaging the unborn child.
H319	Causes serious eye irritation.
H360FD	May damage fertility. May damage the unborn child.

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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. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. 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.