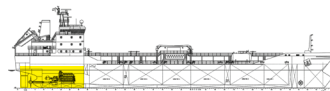


# GLYSACORR G 93-94 BASF



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## DIESEL ENGINE WATER TREATMENT SUITABLE FOR ALUMINIUM, ALLOYS AND YELLOW METALS



APPROVED BY  
Motoren und Turbinen Union  
Friedrichshafen GmbH

### PHYSICAL DATA

Appearance: Green liquid  
Density: 1.096 g/cm<sup>3</sup>  
Product pH neat: 9.5  
Corrosive action: None

**NITRITE FREE  
PRODUCT**

### DESCRIPTION

GLYSACORR G 93 is an inhibitor concentrate/chemical which is added to the cooling water of internal combustion engines in cases in which the coolant does not need to be protected from freezing.

- High performance corrosion inhibitor
- Being a nitrite free product it is compatible also with zinc - coated piping
- Easy control test with refractometer

### APPLICATION

At concentration of 10% by volume, GLYSACORR G 93 affords excellent protection against cavitation and corrosion to all metal and alloys which are used in cooling system, such as aluminium, ferrous and yellow metals.

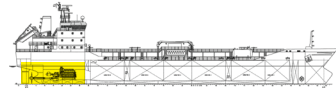
### INSTRUCTION FOR USE

The coolant should be prepared with water that is clean but not too hard. The following types of water are unsuitable: sea water, mixture of sea water and fresh water, salt water and industrial waste water. The analytical values of the water should be within the following limits:

Water hardness:	0 - 100 ppm
Chloride contents:	max 100 ppm
Sulphate contents:	max 100 ppm

The water must be treated by suitable means if it does not fulfill these requirements, i.e. by adding softened, or distilled or deionized water. Excessive sulphate or chloride contents can also be reduced by adding distilled or deionized water.

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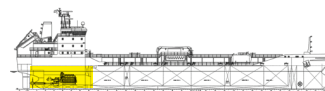


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## Safety Data Sheet

### 1. Identification of the substance / preparation and the Company

#### 1.1 Identification of the substance or preparation

Product name GLYSACORR G 93-94

#### 1.2 Use of the substance / preparation

Intended use Coolant Concentrate

#### 1.3 Company identification

Name BASF SE  
Full address 67056 Ludwigshafen  
District and Country Germany

Tel. + 44 161 485 6222 ( UK )

Fax + 44 161 485 4274 ( UK )

e-mail address of the  
competent person  
responsible for the Safety  
Data Sheet

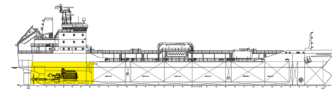
[product-safety-north@basf.com](mailto:product-safety-north@basf.com)

#### 1.4 Emergency telephone

For urgent inquiries refer  
to

First Aid Information: Centro Antiveleni Milano -  
Niguarda  
Phone: 02 - 66101029 (specialized in chemical  
products poisoning).

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## 2. Hazards Identification

Harmful if swallowed.  
Possible risk of harm to the unborn child

## 3. Composition / Information on ingredients

Hazardous ingredients

### ethyleneglycol

Content (W/W)	CAS Number	EC-Number	INDEX-N.	Hazard symbol	R phrases
>= 25 % - <= 35 %	107-21-1	203-473-3	603-027-00-1	Xn	22

### potassium 2-ethylhexanoate

Content (W/W)	CAS Number	EC-Number	Hazard Symbol	R phrases
>= 10 % - <= 15 %	3164-85-0	221-625-7	Xn	63

The wording of the hazard symbols and R-phrases is specified in chapter 16 if dangerous ingredients are mentioned.

The complete text of -R- phrases is specified in section 16.

## 4. First aid measures

General advice:

Immediately 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:

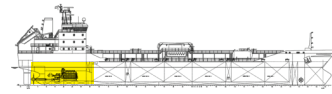
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention.

Note to physician: Treatment: antidote.

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## 5. Fire-fighting measures

Suitable extinguishing media:

water, dry extinguishing media, foam, carbon dioxide

Specific hazards:

harmful vapours

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

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.

## 6. Accidental release measures

Personal precautions:

Use personal protective clothing.

Environmental precautions:

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

Methods for cleaning up or taking up:

For large amounts: Pump off product.

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

## 7. Handling and storage

Handling

No special measures necessary provided product is used correctly.

Protection against fire and explosion:

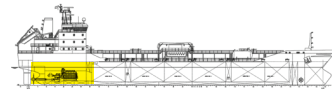
Take precautionary measures against static discharges.

Storage

Further information on storage conditions: Keep container tightly closed. Keep in a cool place.

Storage in galvanized containers is not recommended.

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## 8. Exposure control / personal protection.

Components with workplace control parameters

107-21-1: ethyleneglycol

TWA value 52 mg/m<sup>3</sup> ; 20 ppm (OEL (EU))

STEL value 104 mg/m<sup>3</sup> ; 40 ppm (OEL (EU))

Skin Designation (OEL (EU))

The substance can be absorbed through the skin.

TWA value 10 mg/m<sup>3</sup> (EH40 (UK))

TWA value 52 mg/m<sup>3</sup> ; 20 ppm (EH40 (UK))

STEL value 104 mg/m<sup>3</sup> ; 40 ppm (EH40 (UK))

Skin Designation (EH40 (UK))

The substance can be absorbed through the skin.

Skin Designation (EH40 (UK))

The substance can be absorbed through the skin.

Refer to the current edition of HSE Guidance Note EH40 Occupational Exposure Limits (United Kingdom).

Personal protective equipment

Respiratory protection: Suitable respiratory protection for higher concentrations or long-term effect: Gas filter EN141 Type A for gases/vapours of organic compounds (boiling point >65 °C).

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

Supplementary note: The specifications are based on own 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 in accordance with EN 374.

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

Eye protection:

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

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting

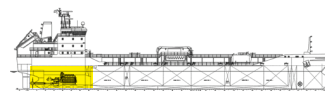
boots, chemical-protection suit (according to DIN-EN 465).

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work

clothing is required additionally to the stated personal protection equipment.

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## 9. Physical and chemical properties

Form:	liquid	
Odour:	product specific	
pH value:	9.5	(20 °C) (ASTM D1287)
solidification temperature:	< -25 °C	(DIN/ISO 3016)
boiling temperature:	> 100 °C	(ASTM D1120)
Flash point:	> 100 °C	(DIN/ISO 2592)
Ignition temperature:	> 200 °C	(DIN 51794)
Vapour pressure:	18 mbar (20 °C) 95 mbar (50 °C)	
Density:	1.09 g/cm <sup>3</sup> (20 °C)	
Solubility in water:	soluble	
Viscosity, kinematic:	10 mm <sup>2</sup> /s (20 °C)	(DIN 51562)

## 10. Stability and reactivity

### Hazardous reactions:

No hazardous reactions when stored and handled according to instructions.

### Hazardous decomposition products:

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

## 11. Toxicological information

LD50/oral/rat: > 2,000 mg/kg

Primary skin irritation/rabbit: non-irritant (OECD Guideline 404)

Primary irritations of the mucous membrane/rabbit: non-irritant (OECD Guideline 405)

### Further information:

Information on: ethylene glycol

### Experiences in humans:

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

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

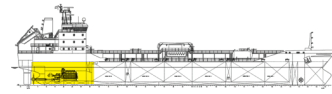
The symptoms/diagnosis/findings mentioned may result with smaller doses.

### Additional information:

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

The statements are based on the properties of the the individual components.

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## 12. Ecological information

### Ecotoxicity

Toxicity to fish:

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

Microorganisms/Effect on activated sludge:

Pseudomonas putida/EC10: > 100 mg/l

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

### Persistence and degradability

Elimination information

Test method: OECD 302B; ISO 9888; 88/302/EEC, part C

Method of analysis: DOC reduction

Degree of elimination: > 70 %

Evaluation: Easily eliminated from water.

### Other adverse effects

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

### Additional information

Other ecotoxicological advice:

Do not release untreated into natural waters.

## 13. Disposal consideration

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

(United Kingdom).

Contaminated packaging:

Uncontaminated packaging can be re-used.

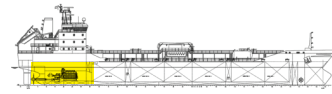
Packs that cannot be cleaned should be disposed of in the same manner as the contents.

## 14. Transport information

This product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.



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## 15. Regulatory information

### Regulations of the European union (Labelling) / National legislation/Regulations

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

Hazard symbol(s)  
Xn Harmful.

R-phrase(s)  
R22 Harmful if swallowed.  
R63 Possible risk of harm to the unborn child.

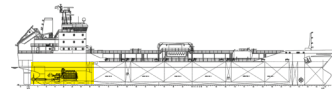
S-phrase(s)  
S2 Keep out of the reach of children.  
S36/37 Wear suitable protective clothing and gloves.  
S46 If swallowed, seek medical advice immediately and show this container or label.

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

### Other regulations

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

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## 16. Other information

Full text of hazard symbols and R-phrases if mentioned as hazardous components in chapter 2:

Xn Harmful.

22 Harmful if swallowed.

63 Possible risk of harm to the unborn child.

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

If you have any queries relating to this MSDS, it's contents or any other product safety related questions,  
please write to the following e-mail address: [product-safety-north@basf.com](mailto: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.