

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

BG - BUTYL GLYCOL Bulkware

Version 10.0

Revision Date 2010/12/07

Print Date 2011/01/31

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : BG - BUTYL GLYCOL Bulkware
 Registration number : 01-2119475108-36-0002
 2-butoxyethanol
 Substance name : EGBE
 Substance No. : 203-905-0, 111-76-2

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

Use of the Substance/Mixture : industrial use, raw material for washing and cleaning agents,
 Solvent, raw material for printing inks and printing ink
 additives

1.3 Details of the supplier of the safety data sheet

Company Sasol UK Solvents
 Stratford Road 2401
 B94 6NW Solihull
Information (Product safety): + 49 (0) 28 41 - 49 24 97 **Fax:** + 49 (0) 28 41 - 49 23 40
E-mail:: solvents.germany.msds@de.sasol.com

1.4 Emergency telephone number

Emergency telephone number +44 (0)1235 239 670 (Europe, Israel, Africa, Americas)
 +44 (0)1235 239 671 (Middle East, Arabic African countries)
 +65 3158 1074 (Asia Pacific)
 +86 10 5100 3039 (China)
 +27 (0)17 610 4444 (South Africa)

2. Hazards identification

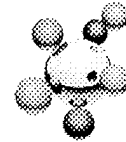
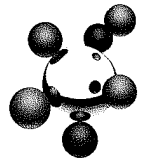
2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 4	H312: Harmful in contact with skin.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin irritation, Category 2	H315: Causes skin irritation.
Serious eye damage, Category 2	H319: Causes serious eye irritation.

Classification (67/548/EEC, 1999/45/EC)

Harmful	R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
Irritant	R36/38: Irritating to eyes and skin.



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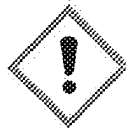
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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements :

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary statements :

Prevention: P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response: P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.

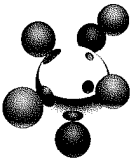
2.3 Other hazards

No information available.

3. Composition/information on ingredients

3.1 Substances

Chemical Name	CAS-No. EINECS-No. / ELINCS No.	content [%]
2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve	111-76-2 203-905-0	



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4. First aid measures

4.1 Description of first aid measures

- General advice : Take off all contaminated clothing immediately.
If you feel unwell, seek medical advice (show the label where possible).
- If inhaled : Provide fresh air.
Call a physician immediately.
- In case of skin contact : Wash off with plenty of water immediately, seek medical advice if necessary.
Take off all contaminated clothing immediately.
- In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- If swallowed : Rinse mouth.
Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : For specialist advice physicians should contact the Poisons Information Service.

5. Fire-fighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray
Dry powder
Foam
Carbon dioxide (CO2)

5.2 Special hazards arising from the substance or mixture

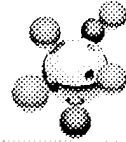
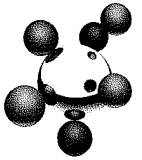
- Specific hazards during fire fighting : No information available.

5.3 Advice for firefighters

- Further information : Standard procedure for chemical fires.
In the event of fire, cool tanks with water spray.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



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Personal precautions : Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Avoid subsoil penetration.
Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Wear personal protective equipment.
Avoid contact with skin and eyes.

Advice on protection against fire and explosion : Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

German storage class : 10 Combustible liquids not in Storage Class 3

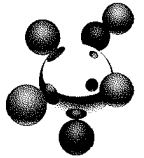
7.3 Specific end uses

: Consult the technical guidelines for the use of this substance/mixture.

8. Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
2-butoxyethano	111-76-2	TWA	25 ppm	2007	EH40 WEL
		STEL	50 ppm	2007	EH40 WEL
		TWA	20 ppm 98 mg/m3	02 2006	ECTLV
		STEL	50 ppm 246 mg/m3	02 2006	ECTLV



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		TWA	25 ppm	2007	EH40 WEL
		STEL	50 ppm	2007	EH40 WEL
		TWA	20 ppm 98 mg/m3	02 2006	ECTLV
		STEL	50 ppm 246 mg/m3	02 2006	ECTLV

DNEL

2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Acute effects
Exposure time: 1 d
Value: 89 mg/kg

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Acute effects
Value: 663 mg/m3

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Acute effects, Local effects
Value: 246 mg/m3

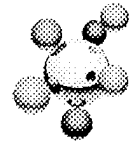
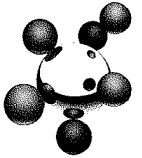
End Use: Workers
Exposure routes: Skin contact
Potential health effects: Chronic effects
Exposure time: 1 d
Value: 75 mg/kg

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Chronic effects
Value: 98 mg/m3

End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Acute effects
Exposure time: 1 d
Value: 44.5 mg/kg

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Acute effects
Value: 426 mg/m3

End Use: Consumers



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Exposure routes: Ingestion
Potential health effects: Acute effects
Exposure time: 1 d
Value: 13.4 mg/kg

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Acute effects, Local effects
Value: 123 mg/m3

End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Chronic effects
Exposure time: 1 d
Value: 38 mg/kg

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Chronic effects
Value: 49 mg/m3

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Chronic effects
Exposure time: 1 d
Value: 3.2 mg/kg

PNEC
2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve : Fresh water
Value: 8.8 mg/l

Marine water
Value: 8.8 mg/l

Fresh water sediment
Value: 8.14 mg/kg

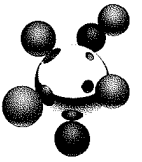
Soil
Value: 2.8 mg/kg

8.2 Exposure controls

Personal protective equipment

Respiratory protection : In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.

Eye protection : Tightly fitting safety goggles



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Protective measures : Avoid contact with eyes.
Wear suitable gloves and eye/face protection.

Environmental exposure controls

General advice : Avoid subsoil penetration.
Do not flush into surface water or sanitary sewer system.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : colourless

Odour : mild

pH : 20 °C, neutral

Melting point/range : -75 °C, 1,013 hPa

Boiling point/boiling range : 168 - 172 °C, 1,013 hPa
171 °C, 1,013 hPa

Flash point : 67 °C, 1,013 hPa

Lower explosion limit : 1.1 %(V)

Upper explosion limit : 10.6 %(V)

Vapour pressure : 1 hPa, 20 °C
1.17 hPa, 25 °C

Density : 0.9 g/cm³, 20 °C

Water solubility : 20 °C, completely miscible
90 g/l, 25 °C

Partition coefficient: n-octanol/water : log Pow: 0.81

Autoignition temperature : 230 °C, 1,013 hPa

Ignition temperature : 240 °C, DIN 51794

Thermal decomposition : no data available

Viscosity, dynamic : 3.3 mPas, 20 °C

9.2 Other information

Refractive index : 1.419 - 1.420, 20 °C, ISO 5661

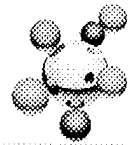
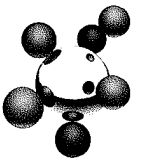
10. Stability and reactivity

10.1 Reactivity

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12. Ecological information

12.1 Toxicity

Components:

2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve :

- Toxicity to fish : LC50: > 100 mg/l, 96 h, Lepomis macrochirus, static test, GLP: no, (literature value)
- Toxicity to daphnia and other aquatic invertebrates. : EC50: > 100 mg/l, 24 h, Daphnia magna, static test, GLP: no, (literature value)
- Toxicity to algae : EC50: > 100 mg/l, 7 d, Desmodesmus subspicatus (green algae), static test, Analytical monitoring: no, GLP: no, (literature value)

12.2 Persistence and degradability

Components:

2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve :

- Biodegradability : aerobic, > 70 %, Result: Readily biodegradable., Exposure time: 28 d, activated sludge of a predominantly domestic sewage, content: 10 mg/l, OECD Test Guideline 301 E, GLP: no, (literature value)

12.3 Bioaccumulative potential

Components:

2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve :

- Bioaccumulation : no data available

12.4 Mobility in soil

Components:

2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve :

- Mobility : no data available

12.5 Results of PBT and vPvB assessment

Components:

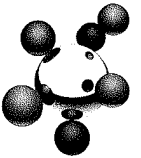
2-butoxyethanol; ethylene glycol monobutyl ether butyl cellosolve :

- Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

- Additional ecological information : no data available



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13. Disposal considerations

13.1 Waste treatment methods

Product : Can be incinerated, when in compliance with local regulations.

14. Transport information

14.1 UN number

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.2 Proper shipping name

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.3 Transport hazard class

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.4 Packing group

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

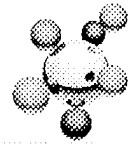
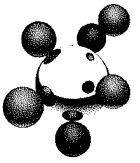
Not dangerous goods

IATA

Not dangerous goods

14.5 Environmental hazards

ADR



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Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.6 Special precautions for user

Butyl glycol ether is removed from the dangerous goods regulation by the UN COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS (Document ST/SC/AG.10/C.3/R.589 from May 20th 1994, "REMOVAL OF UN 2369 FROM THE RECOMMENDATIONS").

Dangerous goods class 9, Identification-No. 9003 ADNR, only when transported by inland waterways tanker.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks : Not listed

15. Regulatory information

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

Major Accident Hazard : 96/82/EC
Legislation : Directive 96/82/EC does not apply

Notification status

EINECS : On the inventory, or in compliance with the inventory
TSCA : On TSCA Inventory
AUSTR : On the inventory, or in compliance with the inventory
DSL : All components of this product are on the Canadian DSL list.
ENCS : On the inventory, or in compliance with the inventory
KOREA : On the inventory, or in compliance with the inventory
PHIL : On the inventory, or in compliance with the inventory
CHINA : On the inventory, or in compliance with the inventory
ISHL : On the inventory, or in compliance with the inventory
NZIOC : On the inventory, or in compliance with the inventory

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R36/38 Irritating to eyes and skin.

Full text of H-Statements referred to under sections 2 and 3.



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H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

Further information

Other information

: || Indicates updated section.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Abschnitt 1.01 9. EXPOSURE ASSESSMENT

Introduction and uses

2-Butoxyethanol (EGBE) belongs to the group of glycol ethers. It has a wide range of uses as a solvent in paints, surface coatings, detergents, surface cleaners, inks and dyes. Consumer applications include use of decorative paints and use of cleaning products (both spray cleaners and non-spray cleaners).

Sasol Solvents
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2401 Stratford Road
Hockley Court
SOLVENTS
West Midlands B94 6NW
Telephone: 01564 783060
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687 - CARBON