

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Trade name**

Glass Cleaner Concentrate

**Product no.**

Aqou

**REACH registration number**

Not applicable

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

**Relevant identified uses of the substance or mixture**

Cleaning liquid

**Uses advised against**

-

The full text of any mentioned and identified use categories are given in section 16

### 1.3. Details of the supplier of the safety data sheet

**Company and address**

**Blue & Green AB**  
**Stenorsvägen 52**  
**261 44 Landskrona**  
**Sweden**  
**Tfn: +46 418 399000**  
**Fax: +46 418 13199**  
**www.blueandgreen.se**

**E-mail**

info@blueandgreen.se

**SDS date**

2020-09-17

**SDS Version**

1.0

### 1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service). See section 4 "First aid measures".

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Skin Irrit. 2; H315

Eye Irrit. 2; H319

See full text of H-phrases in section 2.2.

### 2.2. Label elements

**Hazard pictogram(s)****Signal word**

Warning

**Hazard statement(s)**

Causes skin irritation. (H315)

Causes serious eye irritation. (H319)

**Precautionary statements**

According to EC-Regulation 2015/830

<b>General</b>	If medical advice is needed, have product container or label at hand. (P101). Keep out of reach of children. (P102).
<b>Prevention</b>	Wash hands/exposed skin thoroughly after handling. (P264). Wear eye protection/gloves. (P280).
<b>Response</b>	If eye irritation persists: Get medical advice/attention. (P337+P313). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338).
<b>Storage</b>	-
<b>Disposal</b>	-

**Identity of the substances primarily responsible for the major health hazards**

Not applicable

**Additional labelling**

Not applicable

**Unique formula identifier (UFI)**

-

**2.3. Other hazards**

Not applicable

**Additional warnings**

Not applicable

**VOC (volatile organic compound)**

Not applicable

**SECTION 3: Composition/information on ingredients**

**3.1/3.2. Substances/Mixtures**

NAME: 2-(2-butoxyethoxy)ethanol  
 IDENTIFICATION NOS.: CAS-no: 112-34-5 EC-no: 203-961-6 REACH-no: 01-2119475104-44 Index-no: 603-096-00-8  
 CONTENT: 15 - <25%  
 CLP CLASSIFICATION: Eye Irrit. 2  
 H319  
 NOTE: L

NAME: 2-butoxyethanol  
 IDENTIFICATION NOS.: CAS-no: 111-76-2 EC-no: 203-905-0 REACH-no: 01-2119475108-36 Index-no: 603-014-00-0  
 CONTENT: 15 - <25%  
 CLP CLASSIFICATION: Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2  
 H302, H312, H315, H319, H332  
 NOTE: O L

(\* ) O = Organic solvent L = European occupational exposure limit. See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

**Other information**

ATEmix(inhale, vapour) > 20  
 ATEmix(dermal) > 2000  
 ATEmix(oral) > 2000  
 Eye Cat. 2 Sum = Sum(Ci/S(G)CLi) = 3.2 - 4.8  
 Skin Cat. 2 Sum = Sum(Ci/S(G)CLi) = 1.6 - 2.4

Detergent:

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. The doctor can contact The National Poisons Information Service: Dial 0344 892 0111 (24 h service). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

**Inhalation**

Bring the person into fresh air and stay with him/her.

**Skin contact**

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with soap

According to EC-Regulation 2015/830

and water.

#### **Eye contact**

Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30°C) for at least 5 minutes and continue until irritation stops. Make sure to flush under the upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

#### **Ingestion**

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

#### **Burns**

Not applicable

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

This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

IF exposed or concerned: Get immediate medical advice/attention.

#### **Information to medics**

Bring this safety data sheet.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist.

#### **5.2. Special hazards arising from the substance or mixture**

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous catabolic substances are produced. These are: Carbon oxides. Fire will result in dense black smoke. Exposure to combustion products may harm your health. Fire fighters should wear appropriate protection equipment. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

#### **5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

No specific requirements.

#### **6.2. Environmental precautions**

No specific requirements.

#### **6.3. Methods and material for containment and cleaning up**

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

#### **6.4. Reference to other sections**

See section on "Disposal considerations" in regard of handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

Smoking, storage of tobacco, consumption and storage of food or liquids are not allowed in the workrooms. See section on 'Exposure controls/personal protection' for information on personal protection.

#### **7.2. Conditions for safe storage, including any incompatibilities**

Always store in containers of the same material as the original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

#### **Storage temperature**

No data available.

#### **7.3. Specific end use(s)**

This product should only be used for applications quoted in section 1.2

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

According to EC-Regulation 2015/830

**OEL**

2-butoxyethanol

Long-term exposure limit (8-hour TWA reference period): 25 ppm | 123 mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): 50 ppm | - mg/m<sup>3</sup>

Comments: Sk;BMGV (Bmgv = Biological Monitoring Guidance Value. Sk = Can be absorbed through skin. )

2-(2-butoxyethoxy)ethanol

Long-term exposure limit (8-hour TWA reference period): 10 ppm | 67,5 mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): 15 ppm | 101.2 mg/m<sup>3</sup>

**DNEL / PNEC**

DNEL (2-(2-butoxyethoxy)ethanol): 83 mg/kg

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-(2-butoxyethoxy)ethanol): 67.5 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-(2-butoxyethoxy)ethanol): 67.5 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Local effects - Workers

DNEL (2-(2-butoxyethoxy)ethanol): 5 mg/kg bw/d

Exposure: Oral

Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-(2-butoxyethoxy)ethanol): 50 mg/kg bw/d

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-(2-butoxyethoxy)ethanol): 40.5 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Local effects - General population

DNEL (2-(2-butoxyethoxy)ethanol): 101.2 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Short term – Local effects - Workers

DNEL (2-(2-butoxyethoxy)ethanol): 40.5 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-(2-butoxyethoxy)ethanol): 60.7 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Short term – Local effects - General population

DNEL (2-butoxyethanol): 3.2 mg/kg bw/day

Exposure: Oral

Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-butoxyethanol): 49 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-butoxyethanol): 38 mg/kg bw/day

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-butoxyethanol): 426 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Short term – Systemic effects - General population

DNEL (2-butoxyethanol): 123 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Short term – Local effects - General population

DNEL (2-butoxyethanol): 98 mg/m<sup>3</sup>, 20 ppm

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-butoxyethanol): 246 mg/m<sup>3</sup>, 50 ppm

Exposure: Inhalation

Duration of Exposure: Short term – Local effects - Workers

According to EC-Regulation 2015/830

DNEL (2-butoxyethanol): 663 mg/m<sup>3</sup>, 135 ppm  
Exposure: Inhalation  
Duration of Exposure: Short term – Systemic effects - Workers

DNEL (2-butoxyethanol): 89 mg/kg bw/day  
Exposure: Dermal  
Duration of Exposure: Short term – Systemic effects - Workers

DNEL (2-butoxyethanol): 13.4 mg/kg bw/day  
Exposure: Oral  
Duration of Exposure: Short term – Systemic effects - General population

DNEL (2-butoxyethanol): 44.5 mg/kg bw/day  
Exposure: Dermal  
Duration of Exposure: Short term – Systemic effects - General population

PNEC (2-(2-butoxyethoxy)ethanol): 200 mg/l  
Exposure: Sewage Treatment Plant

PNEC (2-(2-butoxyethoxy)ethanol): 0.44 mg/kg dw  
Exposure: Marine water sediment

PNEC (2-(2-butoxyethoxy)ethanol): 4.4 mg/kg dw  
Exposure: Freshwater sediment

PNEC (2-(2-butoxyethoxy)ethanol): 1 mg/l  
Exposure: Freshwater

PNEC (2-(2-butoxyethoxy)ethanol): 0.1 mg/l  
Exposure: Marine water

PNEC (2-(2-butoxyethoxy)ethanol): 3.9 mg/l  
Exposure: Intermittent release

PNEC (2-(2-butoxyethoxy)ethanol): 0.32 mg/kg dw  
Exposure: Soil

PNEC (2-butoxyethanol): 8.8 mg/l  
Exposure: Freshwater

PNEC (2-butoxyethanol): 0.88 mg/l  
Exposure: Marine water

PNEC (2-butoxyethanol): 463 mg/l  
Exposure: Sewage Treatment Plant

PNEC (2-butoxyethanol): 34.6 mg/kg dw  
Exposure: Freshwater sediment

PNEC (2-butoxyethanol): 3.46 mg/kg dw  
Exposure: Marine water sediment

PNEC (2-butoxyethanol): 2.8 mg/kg dw  
Exposure: Soil

PNEC (2-butoxyethanol): 9.1 mg/l  
Exposure: Intermittent release

## 8.2. Exposure controls

Compliance with the accepted occupational exposure limits values should be controlled on a regular basis.

### General recommendations

Observe general occupational hygiene standards.

### Exposure scenarios

There is no appendix to this safety data sheet.

### Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

### Appropriate technical measures

Ensure emergency eyewash and -showers are clearly marked.

### Hygiene measures

According to EC-Regulation 2015/830

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

**Measures to avoid environmental exposure**

No specific requirements.

**Individual protection measures, such as personal protective equipment**



**Generally**

Use only CE marked protective equipment.

**Respiratory Equipment**

NA

**Skin protection**

Dedicated work clothing should be worn.

**Hand protection**

Wear protective gloves. The specific work situation is unknown. Contact the suppliers of the gloves for further advice regarding the appropriate glove type. Please note that elastic gloves stretch when used. The thickness of the gloves, and therefore their penetration time, will be reduced. Moreover, the temperature of the glove in use is about 35°C, while the standard test, EN 374-3, is done at 23°C. The penetration time is therefore reduced by a factor of 3.

**Eye protection**

Wear safety glasses with side shields.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Form	Liquid
Colour	Green
Odour	Pleasant
Odour threshold (ppm)	No data available.
pH	7
Viscosity (40°C)	No data available.
Density (g/cm <sup>3</sup> )	No data available.

**Phase changes**

Melting point (°C)	No data available.
Boiling point (°C)	No data available.
Vapour pressure	No data available.
Decomposition temperature (°C)	No data available.
Evaporation rate (n-butylacetate = 100)	No data available.

**Data on fire and explosion hazards**

Flash point (°C)	No data available.
Ignition (°C)	No data available.
Auto flammability (°C)	No data available.
Explosion limits (% v/v)	No data available.
Explosive properties	No data available.

**Solubility**

Solubility in water	Soluble
n-octanol/water coefficient	No data available.

**9.2. Other information**

Solubility in fat (g/L)	No data available.
-------------------------	--------------------

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data available

**10.2. Chemical stability**

The product is stable under the conditions, noted in the section "Handling and storage".

According to EC-Regulation 2015/830

**10.3. Possibility of hazardous reactions**

Nothing special

**10.4. Conditions to avoid**

Nothing special

**10.5. Incompatible materials**

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

**10.6. Hazardous decomposition products**

The product is not degraded when used as specified in section 1.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**

Substance: 2-butoxyethanol

Species: Guinea pig

Test: LD50

Route of exposure: Oral

Result: 1414 mg/kg

Substance: 2-butoxyethanol

Species: Rat

Test: LC50

Route of exposure: Inhalation

Result: 2.56 mg/l/4h

Substance: 2-butoxyethanol

Species: Guinea pig

Test: LD0

Route of exposure: Dermal

Result: >2000 mg/kg

Substance: 2-butoxyethanol

Species: Rat

Test: LD50

Route of exposure: Oral

Result: 1300 mg/kg

Substance: 2-(2-butoxyethoxy)ethanol

Species: Rat

Test: LD50

Route of exposure: Oral

Result: >2000 mg/kg

Substance: 2-(2-butoxyethoxy)ethanol

Species: Rabbit

Test: LD50

Route of exposure: Dermal

Result: 2764 mg/kg

Substance: 2-(2-butoxyethoxy)ethanol

Species: Rat

Test: LC50

Route of exposure: Inhalation

Result: >29 ppm 2h

Substance: 2-(2-butoxyethoxy)ethanol

Species: Mouse

Test: LD50

Route of exposure: Oral

Result: 2410 mg/kg

**Skin corrosion/irritation**

Causes skin irritation.

Data on substance: 2-(2-butoxyethoxy)ethanol

Test: OECD Guideline 404

Organism: Rabbit

Result: not irritating

**Serious eye damage/irritation**

Causes serious eye irritation.

Data on substance: 2-(2-butoxyethoxy)ethanol

According to EC-Regulation 2015/830

Test: OECD Guideline 404

Organism: Rabbit

Result: irritating

**Respiratory or skin sensitisation**

Data on substance: 2-(2-butoxyethoxy)ethanol

Test: OECD Guideline 406

Organism: Guinea pig

Result: Negative

**Germ cell mutagenicity**

No data available.

**Carcinogenicity**

No data available.

**Reproductive toxicity**

No data available.

**STOT-single exposure**

No data available.

**STOT-repeated exposure**

No data available.

**Aspiration hazard**

No data available.

**Long term effects**

This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Substance: 2-butoxyethanol

Species: Algae

Test: EC50

Duration: 72h

Result: 1840 mg/l

Substance: 2-butoxyethanol

Species: Fish

Test: LC50

Duration: 96h

Result: 1474 mg/l

Substance: 2-butoxyethanol

Species: Daphnia

Test: EC50

Duration: 48h

Result: 1550 mg/l

Substance: 2-butoxyethanol

Species: Fish

Test: NOEC

Duration: 21d

Result: 100 mg/l

Substance: 2-butoxyethanol

Species: Daphnia

Test: NOEC

Duration: 21d

Result: 100 mg/l

Substance: 2-(2-butoxyethoxy)ethanol

Species: Fish

Test: LC50

Duration: 96h

Result: >100 mg/l

Substance: 2-(2-butoxyethoxy)ethanol

Species: Algae

Test: EC50

Duration: 96h

Result: >100 mg/l

Substance: 2-(2-butoxyethoxy)ethanol

Species: Daphnia

Test: EC50

Duration: 48h

Result: >100 mg/l



According to EC-Regulation 2015/830

### 12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
2-butoxyethanol	Yes	CO2 Evolution Test	90,4
2-(2-butoxyethoxy)ethanol	Yes	Modified OECD Screening Test	100%

### 12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
2-butoxyethanol	No	0.81	No data available
2-(2-butoxyethoxy)ethanol	No	1	No data available

### 12.4. Mobility in soil

2-butoxyethanol: Log Koc= 0.719839, Calculated from LogPow (High mobility potential).  
 2-(2-butoxyethoxy)ethanol: Log Koc= 0.8703, Calculated from LogPow (High mobility potential).

### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

### 12.6. Other adverse effects

Nothing special

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

#### Waste

EWC code

-

#### Specific labelling

Not applicable

#### Contaminated packing

Contaminated packaging must be disposed of similarly to the product.

## SECTION 14: Transport information

### 14.1 – 14.4

Not dangerous goods according to ADR, IATA and IMDG.

#### ADR/RID

14.1. UN number	-
14.2. UN proper shipping name	-
14.3. Transport hazard class(es)	-
14.4. Packing group	-
Notes	-
Tunnel restriction code	-

#### IMDG

UN-no.	-
Proper Shipping Name	-
Class	-
PG*	-
EmS	-
MP**	-
Hazardous constituent	-

#### IATA/ICAO

UN-no.	-
Proper Shipping Name	-
Class	-
PG*	-

### 14.5. Environmental hazards

-

### 14.6. Special precautions for user

-

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

(\*) Packing group

(\*\*) Marine pollutant

## SECTION 15: Regulatory information

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

According to EC-Regulation 2015/830

**Restrictions for application**

People under the age of 18 shall not be exposed to this product cf. Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

**Demands for specific education**

-

**Additional information**

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

**Seveso**

-

**Biocidal reg. no.**

Not applicable

**Sources**

Council Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677. The Stationery Office, 2002.

Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 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 (CLP).

Regulation (EC) 1907/2006 (REACH).

**15.2. Chemical safety assessment**

No

**SECTION 16: Other information**

**Full text of H-phrases as mentioned in section 3**

H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

**The full text of identified uses as mentioned in section 1**

-

**Additional label elements**

Not applicable

**Other**

In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the mixture is based on:

The classification of the mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

**The safety data sheet is validated by**

David Löwenstein

**Date of last essential change  
(First cipher in SDS version)**



According to EC-Regulation 2015/830

-  
**Date of last minor change  
(Last ciphher in SDS version)**  
-

ALPHAOMEGA. Licens nr.:3830228684, Blue & Green AB, 7.0.1.11  
[www.chymeia.com](http://www.chymeia.com)