

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

Trouble Solver

Product no.

-

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

2020-09-25

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

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 serious eye irritation. (H319)

Precautionary statements

General

If medical advice is needed, have product container or label at hand. (P101).
Keep out of reach of children. (P102).

According to EC-Regulation 2015/830

Prevention	Wash hands/exposed skin thoroughly after handling. (P264). Wear eye protection/gloves. (P280).
Response	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).
Storage	-
Disposal	-

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-methoxymethylethoxy)propanol
IDENTIFICATION NOS.:	CAS-no: 34590-94-8 EC-no: 252-104-2 REACH-no: 01-2119450011-60
CONTENT:	40-60%
CLP CLASSIFICATION:	
NOTE:	O L
NAME:	1-(1-methyl-2-propoxyethoxy)propan-2-ol
IDENTIFICATION NOS.:	CAS-no: 29911-27-1 EC-no: 249-949-4 REACH-no: 01-2119908226-42
CONTENT:	15 - <25%
CLP CLASSIFICATION:	NA
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

(*) 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

Eye 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

Immediately remove contaminated clothing and shoes. Ensure that skin, which has been exposed to the material, is washed thoroughly with soap and water.

Eye contact

According to EC-Regulation 2015/830

Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing.

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

Room temperature 18 to 23°C

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

OEL

2-(2-butoxyethoxy)ethanol

According to EC-Regulation 2015/830

Long-term exposure limit (8-hour TWA reference period): 10 ppm | 67,5 mg/m³
Short-term exposure limit (15-minute reference period): 15 ppm | 101.2 mg/m³

(2-methoxymethylethoxy)propanol

Long-term exposure limit (8-hour TWA reference period): 50 ppm | 308 mg/m³

Short-term exposure limit (15-minute reference period): - ppm | - mg/m³

Comments: Sk (Sk = Can be absorbed through skin.)

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/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-(2-butoxyethoxy)ethanol): 67.5 mg/m³

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/m³

Exposure: Inhalation

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

DNEL (2-(2-butoxyethoxy)ethanol): 101.2 mg/m³

Exposure: Inhalation

Duration of Exposure: Short term – Local effects - Workers

DNEL (2-(2-butoxyethoxy)ethanol): 40.5 mg/m³

Exposure: Inhalation

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

DNEL (2-(2-butoxyethoxy)ethanol): 60.7 mg/m³

Exposure: Inhalation

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

DNEL ((2-methoxymethylethoxy)propanol): 283 mg/kg bw/day

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL ((2-methoxymethylethoxy)propanol): 308 mg/kg

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL ((2-methoxymethylethoxy)propanol): 121 mg/kg bw/day

Exposure: Dermal

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

DNEL ((2-methoxymethylethoxy)propanol): 37.2 mg/m³

Exposure: Inhalation

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

DNEL ((2-methoxymethylethoxy)propanol): 36 mg/kg bw/day

Exposure: Oral

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

DNEL (1-(1-methyl-2-propoxyethoxy)propan-2-ol): 60mg/kg

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (1-(1-methyl-2-propoxyethoxy)propan-2-ol): 84mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (1-(1-methyl-2-propoxyethoxy)propan-2-ol): 30mg/kg

According to EC-Regulation 2015/830

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

DNEL (1-(1-methyl-2-propoxyethoxy)propan-2-ol): 21 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - General population

DNEL (1-(1-methyl-2-propoxyethoxy)propan-2-ol): 6 mg/kg
Exposure: Oral
Duration of Exposure: Long 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-methoxymethylethoxy)propanol): 19 mg/l
Exposure: Freshwater

PNEC ((2-methoxymethylethoxy)propanol): 1.9 mg/l
Exposure: Marine water

PNEC ((2-methoxymethylethoxy)propanol): 190 mg/l
Exposure: Intermittent release

PNEC ((2-methoxymethylethoxy)propanol): 70.2 mg/kg/dwt
Exposure: Freshwater sediment

PNEC ((2-methoxymethylethoxy)propanol): 7.02 mg/kg/dwt
Exposure: Marine water sediment

PNEC ((2-methoxymethylethoxy)propanol): 2.74 mg/kg
Exposure: Soil

PNEC ((2-methoxymethylethoxy)propanol): 4168 mg/l
Exposure: Sewage Treatment Plant

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

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

According to EC-Regulation 2015/830



Generally

Use only CE marked protective equipment.

Respiratory Equipment

Recommended: A. Class 1 (low capacity). Brown

Skin protection

Dedicated work clothing should be worn.

Hand protection

Butyl rubber

Breakthrough time: > 480 minutes (Class 6)

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	Colourless
Odour	Mild
Odour threshold (ppm)	No data available.
pH	No data available.
Viscosity (40°C)	No data available.
Density (g/cm ³)	0.94

Phase changes

Melting point (°C)	-78
Boiling point (°C)	~210
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)	80
Ignition (°C)	No data available.
Auto flammability (°C)	207
Explosion limits (% v/v)	No data available.
Explosive properties	No data available.

Solubility

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

9.2. Other information

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

10.3. Possibility of hazardous reactions

Nothing special

10.4. Conditions to avoid

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

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.

According to EC-Regulation 2015/830

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

Substance: 1-(1-methyl-2-propoxyethoxy)propan-2-ol
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 2000mg/kg

Substance: 1-(1-methyl-2-propoxyethoxy)propan-2-ol
Species: Rat
Test: LD50
Route of exposure: Dermal
Result: 2000mg/kg

Substance: (2-methoxymethylethoxy)propanol
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 5000 mg/kg

Substance: (2-methoxymethylethoxy)propanol
Species: Rabbit
Test: LD50
Route of exposure: Dermal
Result: 9510 mg/kg

Substance: (2-methoxymethylethoxy)propanol
Species: Rat
Test: LC50
Route of exposure: Inhalation
Result: 3.35 mg/l 7h ånga

Skin corrosion/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
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

According to EC-Regulation 2015/830

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-(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

Substance: 1-(1-methyl-2-propoxyethoxy)propan-2-ol

Species: Fish

Test: LC50

Duration: 96h

Result: >100mg/l

Substance: 1-(1-methyl-2-propoxyethoxy)propan-2-ol

Species: Daphnia

Test: EC50

Duration: 48h

Result: >100mg/l

Substance: 1-(1-methyl-2-propoxyethoxy)propan-2-ol

Species: Algae

Test: EC50

Duration:

Result: >1000mg/l

Substance: (2-methoxymethylethoxy)propanol

Species: Fish

Test: LC50

Duration: 96h

Result: >1000 mg/l

Substance: (2-methoxymethylethoxy)propanol

Species: Daphnia

Test: EC50

Duration: 48h

Result: 1919 mg/l

Substance: (2-methoxymethylethoxy)propanol

Species: Daphnia

Test: NOEC

Duration: 22d

Result: 0.5 mg/l

According to EC-Regulation 2015/830

Substance: (2-methoxymethylethoxy)propanol
 Species: Algae
 Test: EC50
 Duration: 72h
 Result: 969 mg/l

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
2-(2-butoxyethoxy)ethanol	Yes	Modified OECD	100%
1-(1-methyl-2-propoxyethoxy)pr...	Yes	Screening Test	92%
(2-methoxymethylethoxy)propano...	Yes	DOC Die-Away Test	75%
		DOC Die-Away Test	

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
2-(2-butoxyethoxy)ethanol	No	1	No data available
1-(1-methyl-2-propoxyethoxy)pr...	No	0.88	No data available
(2-methoxymethylethoxy)propano...	No	0.006	No data available

12.4. Mobility in soil

2-(2-butoxyethoxy)ethanol: Log Koc= 0.8703, Calculated from LogPow (High mobility potential.).
 1-(1-methyl-2-propoxyethoxy)pr...: Log Koc= 2.8 (Moderate mobility potential.).
 (2-methoxymethylethoxy)propano...: Log Koc= 0.28 (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
 200130

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

According to EC-Regulation 2015/830

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

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

H319 - Causes serious eye irritation.

The full text of identified uses as mentioned in section 1

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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



According to EC-Regulation 2015/830

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

-

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

-

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