

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : For Clean
Revision date : 02.10.2017
Print date : 04.10.2017

Version (Revision) : 2.0.0 (1.0.0)

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

1.1 Product identifier

For Clean

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

Relevant identified uses

Washing and cleaning products (including solvent based products)

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

Bio-Circle Surface Technology GmbH

Street : Berensweg 200

Postal code/city : 33334 Gütersloh

Telephone : +49 5241 9443 0

Telefax : +49 5241 9443 44

Information contact : labor@bio-circle.de

1.4 Emergency telephone number

+49 5241 9443 51 during normal office hours

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

None

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Special rules for supplemental label elements for certain mixtures

EUH210

Safety data sheet available on request.

2.3 Other hazards

None

SECTION 3: Composition / information on ingredients

3.2 Mixtures

Hazardous ingredients

2-(2-BUTOXYETHOXY)ETHANOL ; REACH registration No. : 01-2119475104-44-XXXX ; EC No. : 203-961-6; CAS No. : 112-34-5

Weight fraction : $\geq 1 - < 3 \%$

Classification 1272/2008 [CLP] : Eye Irrit. 2 ; H319

ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER ; REACH registration No. : 01-0000016977-53-XXXX

Weight fraction : $\geq 1 - < 3 \%$

Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290

Additional information

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Trade name : For Clean
Revision date : 02.10.2017
Print date : 04.10.2017

Version (Revision) : 2.0.0 (1.0.0)

When in doubt or if symptoms are observed, get medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Rub greasy ointment into the skin.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water Foam Extinguishing powder Carbon dioxide (CO₂) Sand Nitrogen Extinguishing blanket

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon dioxide (CO₂) Carbon monoxide.

5.3 Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4 Additional information

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Special danger of slipping by leaking/spilling product.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

Clear spills immediately. Wipe up with absorbent material (eg. cloth, fleece). Wash with plenty of water. Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep container tightly closed.

7.2 Conditions for safe storage, including any incompatibilities

Keep/Store only in original container. Protect against Frost

Hints on joint storage

Storage class (TRGS 510) : 12

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : For Clean
Revision date : 02.10.2017
Print date : 04.10.2017

Version (Revision) : 2.0.0 (1.0.0)

7.3 Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5

Limit value type (country of origin) : TRGS 900 (D)
Limit value : 10 ppm / 67 mg/m³
Peak limitation : 1,5(l)
Remark : Y
Version : 02.04.2014

Limit value type (country of origin) : STEL (EC)
Limit value : 15 ppm / 101,2 mg/m³
Version : 07.02.2006

Limit value type (country of origin) : TWA (EC)
Limit value : 10 ppm / 67,5 mg/m³
Version : 07.02.2006

8.2 Exposure controls

Personal protection equipment

Eye/face protection



Wear suitable safety goggles in case of splash.

Suitable eye protection

EN 166.

Skin protection

Hand protection



Wear protective gloves in case of longer lasting skin contact.

Suitable gloves type : EN 374.

Suitable material : NBR (Nitrile rubber)

Breakthrough time (maximum wearing time) : 480 min.

Thickness of the glove material : 0.4 mm

Remark : The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection



Respiratory protection necessary at: exceeding exposure limit values

Suitable respiratory protection apparatus

Combination filtering device (EN 14387)

Type : A

Remark

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : For Clean
Revision date : 02.10.2017
Print date : 04.10.2017

Version (Revision) : 2.0.0 (1.0.0)

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

General health and safety measures

Do not put any product-impregnated cleaning rags into your trouser pockets. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. P362+P364 - Take off contaminated clothing and wash it before reuse. P264 - Wash hands thoroughly after handling.

8.3 Additional information

No tests have been performed. Selection made for preparations according to the best available knowledge and information on ingredients. In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : colourless

Odour : characteristic

Safety relevant basis data

Initial boiling point and boiling range (1013 hPa)	ca.	100	°C
Flash point :	>	100	°C
Lower explosion limit :		not relevant	
Upper explosion limit :		not relevant	
Vapour pressure : (50 °C)		not relevant	
Density : (20 °C)		1,03	g/cm ³
Solvent separation test : (20 °C)		not relevant	
pH :		10	
Flow time : (20 °C)		not relevant	DIN-cup 4 mm
Maximum VOC content (EC) :		0	Wt %
Maximum VOC content (Switzerland) :	<	3	Wt %

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Trade name : For Clean
Revision date : 02.10.2017
Print date : 04.10.2017

Version (Revision) : 2.0.0 (1.0.0)

Acute effects

Acute oral toxicity

Parameter : LD50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Exposure route : Oral
Species : Mouse
Effective dose : 5530 mg/kg
Method : OECD 401
Parameter : LD50 (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER)
Exposure route : Oral
Species : Rat
Effective dose : > 4000 mg/kg

Acute dermal toxicity

Parameter : LD50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Exposure route : Dermal
Species : Rabbit
Effective dose : 2764 mg/kg
Method : OECD 402
Parameter : LD50 (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER)
Exposure route : Dermal
Species : Rat
Effective dose : > 4000 mg/kg
Method : OECD 402

Acute inhalation toxicity

Parameter : LC50 (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER)
Exposure route : Inhalation
Species : Rat
Effective dose : > 5 mg/l

11.2 Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

11.3 Other adverse effects

Has degreasing effect on the skin. Frequently or prolonged contact with skin may cause dermal irritation.

11.4 Additional information

Preparation not tested. The statement is derived from the properties of the single components.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter : LC50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Species : Lepomis macrochirus (Bluegill)
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : 1300 mg/l
Exposure time : 96 h
Method : OECD 203

Acute (short-term) daphnia toxicity

Parameter : EC50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : > 100 mg/l
Exposure time : 48 h
Method : OECD 202

Acute (short-term) algae toxicity

Parameter : EC50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : For Clean
Revision date : 02.10.2017
Print date : 04.10.2017

Version (Revision) : 2.0.0 (1.0.0)

Species : Scenedesmus subspicatus
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : > 100 mg/l
Exposure time : 48 h
Method : OECD 201
Parameter : EC50 (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER)
Species : Scenedesmus subspicatus
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : > 200 mg/l
Exposure time : 72 h
Parameter : EC50 (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : > 200 mg/l
Exposure time : 48 h
Method : OECD 202

Bacteria toxicity
Parameter : EC10 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Species : Bacteria toxicity
Effective dose : > 1995 mg/l
Exposure time : 30 min

12.2 Persistence and degradability

Biodegradation

Parameter : Biodegradation (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Inoculum : Biodegradation
Effective dose : 90 - 100 %
Exposure time : 14 d
Evaluation : Readily biodegradable (according to OECD criteria).
Method : OECD 301E/ EEC 92/69/V, C.4-B

Parameter : Biodegradation (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Inoculum : Biodegradation
Effective dose : 90 - 100 %
Exposure time : 8 d
Evaluation : Readily biodegradable (according to OECD criteria).
Method : OECD 302B/ ISO 9888/ EEC 92/69/V, C.9

Parameter : BOD (% of ThOD) (ALANINE N,N-BIS(CARBOXYMETHYL), -TRINATRIUMSALT IN WATER)
Inoculum : Biodegradation
Evaluation parameter : Aerobic
Effective dose : 80 - 90 %
Exposure time : 28 d
Evaluation : Readily biodegradable (according to OECD criteria).
Method : OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D

12.3 Bioaccumulative potential

No indication of bioaccumulation potential.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Other adverse effects

None known.

12.7 Additional ecotoxicological information

None

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : For Clean
Revision date : 02.10.2017
Print date : 04.10.2017

Version (Revision) : 2.0.0 (1.0.0)

SECTION 13: Disposal considerations

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. List of proposed waste codes/waste designations in accordance with EWC

13.1 Waste treatment methods

Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

20 01 29* - detergents containing dangerous substances.

Waste code packaging

15 01 02 - plastic packaging.

Waste treatment options

Appropriate disposal / Package

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Handle contaminated packages in the same way as the substance itself.

13.2 Additional information

These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use.

SECTION 14: Transport information

14.1 UN number

No dangerous goods in sense of this transport regulation.

14.2 UN proper shipping name

No dangerous goods in sense of this transport regulation.

14.3 Transport hazard class(es)

No dangerous goods in sense of this transport regulation.

14.4 Packing group

No dangerous goods in sense of this transport regulation.

14.5 Environmental hazards

No dangerous goods in sense of this transport regulation.

14.6 Special precautions for user

None

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

not relevant

SECTION 15: Regulatory information

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

EU legislation

Other regulations (EU)

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Labelling for contents according to regulation (EC) No. 648/2004

< 5 % anionic surfactants

< 5 % non-ionic surfactants

National regulations

AT: Labelling according to Austrian regulations (Chemikaliengesetz/ChemV).

CH: Chemikalienverordnung (ChemV) and Chemikalien-Risikoreduktions-Verordnung (Chem RRV) are complied.

Technische Anleitung Luft (TA-Luft)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : For Clean
Revision date : 02.10.2017
Print date : 04.10.2017

Version (Revision) : 2.0.0 (1.0.0)

Weight fraction (Number 5.2.5. I) : < 5 %

Water hazard class (WGK)

Class : 1 (Slightly hazardous to water) Classification according to VwVwS

Other regulations, restrictions and prohibition regulations

Betriebsicherheitsverordnung (BetrSichV)

No flammable liquid according to BetrSichV.

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes

None

16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (Europäisches Übereinkommen über die Beförderung gefährlicher Güter auf der Straße)

AOX: adsorbierbare organisch gebundene Halogene

CAS: Chemical Abstracts Service (Unterabteilung der American Chemical Society)

CLP: Verordnung (EG) Nr. 1272/2008 über die Einstufung, Kennzeichnung und Verpackung von Stoffen und Gemischen (Classification Labelling and Packaging)

EAK / AVV: europäischer Abfallartenkatalog / Abfallverzeichnis-Verordnung

ECHA: Europäische Chemikalienagentur (European Chemicals Agency)

EINECS: : Altstoffverzeichnis (European Inventory of Existing Commercial Chemical Substances)

GHS: Global harmonisiertes System zur Einstufung und Kennzeichnung von Chemikalien (Globally Harmonized System of Classification and Labelling of Chemicals)

IATA: Internationale Luftverkehrs-Vereinigung (International Air Transport Association)

ICAO: Internationale Zivilluftfahrtorganisation (International Civil Aviation Organization)

IMDG: Gefahrgutkennzeichnung für gefährliche Güter im Seeschiffverkehr (International Maritime Code for Dangerous Goods)

RID: Regelung zur internationalen Beförderung gefährlicher Güter im Schienenverkehr (Règlement concernant le transport international ferroviaire de marchandises dangereuses)

TRGS: Technische Regel für den Umgang mit Gefahrstoffen

VbF: Verordnung über brennbare Flüssigkeiten

VOC: flüchtige organische Verbindung (volatile organic compound)

VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe

WGK: Wassergefährdungsklasse

16.3 Key literature references and sources for data

DGUV: GESTIS-Stoffdatenbank

ECHA: Classification And Labelling Inventory

ECHA: Pre-registered Substances

ECHA: Registered Substances

EC_Safety Data Sheet of Suppliers

ESIS: European Chemical Substances Information System

GDL: Gefahrstoffdatenbank der Länder

UBA Rigoletto: Wassergefährdende Stoffe

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council

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

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

No information available.

16.5 Relevant H- and EUH-phrases (Number and full text)

H290 May be corrosive to metals.

H319 Causes serious eye irritation.

16.6 Training advice

None

16.7 Additional information

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : For Clean
Revision date : 02.10.2017
Print date : 04.10.2017

Version (Revision) : 2.0.0 (1.0.0)

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.
