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

Trade name :	Bio-Circle STAR US 3		
Revision date :	30.01.2023	**Version (Revision) :**	3.2.0 (3.1.0)
Print date :	30.01.2023		

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

1.1 Product identifier
Bio-Circle STAR US 3

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses
PC 35 - Washing and cleaning products

1.3 Details of the supplier of the safety data sheet
Supplier
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
(Monday to Thursday from 8 am to 4 pm and Friday from 8 am to 3 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]
Skin Corr. 1B ; H314 - Skin corrosion/irritation : Category 1B ; Causes severe skin burns and eye damage.
Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.
STOT SE 3 ; H335 - STOT-single exposure : Category 3 ; May cause respiratory irritation.

2.2 Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard pictograms

Corrosion (GHS05) · Exclamation mark (GHS07)

Signal word
Danger

Hazard components for labelling
2-AMINOETHANOL ; CAS No. : 141-43-5
FATTY ALCOHOL ALCOXYLATE, POLYMER

Hazard statements

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P310	Immediately call a POISON CENTER/doctor/....
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

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

Weight fraction :	≥ 25 - < 50 %
Classification 1272/2008 [CLP] :	Eye Irrit. 2 ; H319 Substance with a common (EC) occupational exposure limit value.

2-AMINOETHANOL ; REACH No. : 01-2119486455-28-XXXX ; EC No. : 205-483-3; CAS No. : 141-43-5

Weight fraction :	≥ 5 - < 10 %
Classification 1272/2008 [CLP] :	Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Acute Tox. 4 ; H312 Acute Tox. 4 ; H332 STOT SE 3 ; H335 Aquatic Chronic 3 ; H412
Specific Conc. Limits :	STOT SE 3 ; H335: C ≥ 5 %

FATTY ALCOHOL ALCOXYLATE, POLYMER

Weight fraction :	≥ 1 - < 2,5 %
Classification 1272/2008 [CLP] :	Eye Dam. 1 ; H318 Aquatic Acute 1 ; H400 Aquatic Chronic 3 ; H412

Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps.

Following inhalation

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

In case of skin contact

P361 - Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Rub greasy ointment into the skin.

After eye contact

P338 - Remove contact lenses, if present and easy to do. Continue rinsing. In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion

Rinse mouth thoroughly with water. Let 1 glass of water be drunken in little sips (dilution effect). Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe skin burns and eye damage. May cause respiratory irritation.

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

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated: Carbon monoxide , Carbon dioxide (CO2) , Nitrogen oxides (NOx)

5.3 Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

5.4 Additional information

The product itself does not burn. Move undamaged containers from immediate hazard area if it can be done safely. Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire fighting water forms corrosive alkaline solutions - slip hazard!

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

23 - Do not breathe vapour/aerosol. Operate if possible out of doors or in a well-ventilated place. Keep container tightly closed.

7.2 Conditions for safe storage, including any incompatibilities

Keep locked up. Keep/Store only in original container. Protect against : Frost .

Hints on joint storage

Storage class (TRGS 510) : 8B

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/m^3
Peak limitation :	1,5(I)
Remark :	Y
Version :	02.07.2021
Limit value type (country of origin) :	STEL (EC)

Limit value : 15 ppm / 101,2 mg/m³
Version : 20.06.2019
Limit value type (country of origin) : TWA (EC)
Limit value : 10 ppm / 67,5 mg/m³
Version : 20.06.2019

2-AMINOETHANOL ; CAS No. : 141-43-5
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 0,2 ppm / 0,5 mg/m³
Peak limitation : 1(I)
Remark : H, Sh, Y
Version : 02.07.2021
Limit value type (country of origin) : STEL (EC)
Limit value : 3 ppm / 7,6 mg/m³
Remark : Skin
Version : 20.06.2019
Limit value type (country of origin) : TWA (EC)
Limit value : 1 ppm / 2,5 mg/m³
Remark : Skin
Version : 20.06.2019

DNEL-/PNEC-values

DNEL/DMEL

2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5
Limit value type : DNEL worker (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 67,5 mg/m³
Limit value type : DNEL worker (local)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 101,2 mg/m³
Limit value type : DNEL worker (systemic)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 67,5 mg/m³
Limit value type : DNEL worker (systemic)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 20 mg/kg

2-AMINOETHANOL ; CAS No. : 141-43-5
Limit value type : DNEL worker (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 3,3 mg/m³
Limit value type : DNEL worker (systemic)
Exposure route : Dermal
Exposure frequency : Long-term
Limit value : 1 mg/kg

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

Suitable gloves type : EN 374.

Suitable material : NBR (Nitrile rubber)

Breakthrough 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
Filter type: A

General information

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

P363 - Wash contaminated clothing before reuse. 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

Physical state : Liquid

Colour : clear

Odour

characteristic

Safety characteristics

Melting point/freezing point :	(1013 hPa)		not determined		
Initial boiling point and boiling range :	(1013 hPa)	approx.	100	°C	
Flash point :			not relevant		DIN EN ISO 13736
Auto-ignition temperature :		approx.	200	°C	

Flammability :			non-flammable	
Lower explosion limit :			not relevant	
Upper explosion limit :			not relevant	
Density :	(20 °C)	approx.	1	g/cm³
Water solubility :	(20 °C)		completely miscible	
pH :		approx.	12	
Cinematic viscosity :	(20 °C)	approx.	1,004	mm²/s
Relative vapour density :	(20 °C)		not determined	
Maximum VOC content (EC) :			8,9	Weight-%
Maximum VOC content (Switzerland) :			48,9	Weight-%

9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

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 known hazardous decomposition products.
Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Acute oral toxicity

Parameter :	ATEmix calculated
Exposure route :	Oral
Effective dose :	> 2000 mg/kg
Parameter :	LD50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Exposure route :	Oral
Species :	Rat
Effective dose :	1515 mg/kg
Method :	OECD 401
Parameter :	LD50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Exposure route :	Oral
Species :	Mouse
Effective dose :	5530 mg/kg
Method :	OECD 401

Acute dermal toxicity

Parameter :	ATEmix calculated
Exposure route :	Dermal
Effective dose :	> 2000 mg/kg
Parameter :	LD50 (2-AMINOETHANOL ; CAS No. : 141-43-5)

Exposure route :	Dermal
Species :	Rabbit
Effective dose :	2504 - 2881 mg/kg
Method :	OECD 402
Parameter :	LD50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	2764 mg/kg
Method :	OECD 402

Acute inhalation toxicity

Parameter :	ATEmix calculated
Exposure route :	Inhalation
Effective dose :	> 20 mg/l
Parameter :	LC50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	> 1,3 mg/l
Exposure time :	6 h

Corrosion

Skin corrosion/irritation

Causes severe burns.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Skin sensitisation

No further relevant information available.

Sensitisation to the respiratory tract

No further relevant information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No further relevant information available.

Germ cell mutagenicity

No further relevant information available.

Reproductive toxicity

No further relevant information available.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

No further relevant information available.

Aspiration hazard

No further relevant information available.

11.2 Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Toxicokinetics, metabolism and distribution

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

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 (FATTY ALCOHOL ALCOXYLATE, POLYMER)
Species :	Leuciscus idus (golden orfe)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	< 1 mg/l
Exposure time :	96 h
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
Parameter :	LC50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Cyprinus carpio (Common Carp)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	349 mg/l
Exposure time :	96 h
Parameter :	LC0 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Cyprinus carpio (Common Carp)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	105 mg/l
Exposure time :	96 h

Chronic (long-term) fish toxicity

Parameter :	NOEC (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Fish
Evaluation parameter :	Chronic (long-term) fish toxicity
Effective dose :	> 100 mg/l
Exposure time :	14 D
Method :	OECD 204
Parameter :	NOEC (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Oryzias latipes (Ricefish)
Evaluation parameter :	Chronic (long-term) fish toxicity
Effective dose :	1,24 mg/l
Exposure time :	41 D
Method :	OECD 210
Parameter :	LOEC (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Oryzias latipes (Ricefish)
Evaluation parameter :	Chronic (long-term) fish toxicity
Effective dose :	3,55 mg/l
Exposure time :	41 D
Method :	OECD 210

Acute (short-term) toxicity to crustacea

Parameter :	EC50 (FATTY ALCOHOL ALCOXYLATE, POLYMER)
Species :	Daphnia magna (Big water flea)
Evaluation parameter :	Acute (short-term) toxicity to crustacea
Effective dose :	< 1 mg/l
Exposure time :	48 h
Parameter :	EC50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Daphnia magna (Big water flea)
Evaluation parameter :	Acute (short-term) toxicity to crustacea
Effective dose :	27,04 mg/l
Exposure time :	48 h
Method :	OECD 202

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

Chronic (long-term) toxicity to aquatic invertebrate

Parameter :	NOEC (FATTY ALCOHOL ALCOXYLATE, POLYMER)
Species :	Daphnia magna (Big water flea)
Evaluation parameter :	Chronic (long-term) toxicity to aquatic invertebrate
Effective dose :	0,1 - 1 mg/l
Exposure time :	21 D
Parameter :	NOEC (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Daphnia magna (Big water flea)
Evaluation parameter :	Chronic (long-term) toxicity to aquatic invertebrate
Effective dose :	0,85 mg/l
Exposure time :	21 D
Method :	OECD 211
Parameter :	EL10 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Daphnia magna (Big water flea)
Evaluation parameter :	Chronic (long-term) toxicity to aquatic invertebrate
Effective dose :	2,5 mg/l
Exposure time :	21 D
Method :	OECD 211

Acute (short-term) toxicity to algae and cyanobacteria

Parameter :	EC50 (FATTY ALCOHOL ALCOXYLATE, POLYMER)
Species :	Scenedesmus subspicatus
Evaluation parameter :	Inhibition of growth rate
Effective dose :	< 1 mg/l
Exposure time :	72 h
Method :	OECD 201
Parameter :	EC50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Scenedesmus subspicatus
Evaluation parameter :	Acute (short-term) toxicity to algae and cyanobacteria
Effective dose :	22 mg/l
Exposure time :	72 h
Parameter :	EC50 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Species :	Scenedesmus subspicatus
Evaluation parameter :	Acute (short-term) toxicity to algae and cyanobacteria
Effective dose :	> 100 mg/l
Exposure time :	48 h
Method :	OECD 201

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

Parameter :	NOEC (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Scenedesmus subspicatus
Evaluation parameter :	Acute (short-term) toxicity to algae and cyanobacteria
Effective dose :	4 mg/l
Exposure time :	72 h

Toxicity to microorganisms

Parameter :	EC10 (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Species :	Toxicity to microorganisms
Effective dose :	> 1995 mg/l
Exposure time :	30 min
Parameter :	EC50 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Pseudomonas putida
Evaluation parameter :	Toxicity to microorganisms

Effective dose :	110 mg/l
Exposure time :	17 h
Method :	DIN 38412 / part 8
Parameter :	EC10 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Toxicity to microorganisms
Effective dose :	> 1000 mg/l
Exposure time :	30 min
Method :	OECD 209
Parameter :	EC10 (2-AMINOETHANOL ; CAS No. : 141-43-5)
Species :	Pseudomonas putida
Evaluation parameter :	Toxicity to microorganisms
Effective dose :	90 mg/l
Exposure time :	17 h
Parameter :	Bacteria toxicity (FATTY ALCOHOL ALCOXYLATE, POLYMER)
Species :	Toxicity to microorganisms
Effective dose :	> 1000 mg/l

12.2 Persistence and degradability

Biodegradation

Parameter :	BOD (% of COD) (2-(2-BUTOXYETHOXY)ETHANOL ; CAS No. : 112-34-5)
Inoculum :	Biodegradation
Evaluation parameter :	Aerobic
Degradation rate :	95 %
Test duration :	28 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301C
Parameter :	CO2 formation (% of the theoretical value) (2-AMINOETHANOL ; CAS No. : 141-43-5)
Inoculum :	Biodegradation
Evaluation parameter :	Aerobic
Degradation rate :	> 80 %
Test duration :	31 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301B
Parameter :	CO2 formation (% of the theoretical value) (FATTY ALCOHOL ALCOXYLATE, POLYMER)
Inoculum :	Biodegradation
Degradation rate :	> 60 %
Test duration :	28 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301B

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 Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste codes/waste designations according to EWC/AVV

20 01 29* (Detergents containing hazardous substances)
07 06 01* (Aqueous washing liquids and mother liquors)

Other disposal recommendations

Dispose of waste according to applicable legislation. Dispose of contents/container to an appropriate recycling or disposal facility. 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

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

14.1 UN number

UN 1760

14.2 UN proper shipping name

Land transport (ADR/RID)
CORROSIVE LIQUID, N.O.S. (ETHANOLAMINE)

Sea transport (IMDG)
CORROSIVE LIQUID, N.O.S. (ETHANOLAMINE)

Air transport (ICAO-TI / IATA-DGR)
CORROSIVE LIQUID, N.O.S. (ETHANOLAMINE)

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) :	8
Classification code :	C9
Hazard identification number (Kemler No.) :	80
Tunnel restriction code :	E
Special provisions :	LQ 5 l · E 1
Hazard label(s) :	 8

Sea transport (IMDG)

Class(es) :	8
EmS-No. :	F-A / S-B
Special provisions :	LQ 5 l · E 1
Hazard label(s) :	 8

Air transport (ICAO-TI / IATA-DGR)

Class(es) :	8
Special provisions :	E 1

Hazard label(s) :

8

14.4 Packing group

III

14.5 Environmental hazards

Land transport (ADR/RID) : No
Sea transport (IMDG) : No
Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

None

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Use restriction according to REACH annex XVII, no. : 3, 55, 75

Other regulations (EU)

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

< 5 % non-ionic surfactants

National regulations

Technische Anleitung Luft (TA-Luft)

Weight fraction (Number 5.2.5. I) : 5 - 10 %

Water hazard class

Classification according to AwSV - Class : 1 (Slightly hazardous to water)

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

09. Information on basic physical and chemical properties · 11. Endocrine disrupting properties · 12. Endocrine disrupting properties · 15. Restrictions on use

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
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
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 Classifiaction 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)
VVEA: Verordnung über die Vermeidung und die Entsorgung von Abfällen
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) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
Evaluation :
Skin Corr. 1B : Calculation method.
Eye Dam. 1 : Calculation method.
STOT SE 3 : Calculation method.

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

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

16.6 Training advice

None

16.7 Additional information

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.