

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

1.1. Product identifier

Article number: 100xxx
Product name: LowCross-Buffer®

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

Identified uses: Laboratory chemicals
The product is intended for professional use.

1.3. Details of the Supplier of the Safety Data Sheet

Supplier: CANDOR Bioscience GmbH
Simoniusstrasse 39
88239 Wangen
Germany
Telephone: +49 7522 795270
E-mail (competent person): support@candor-bioscience.de

1.4 Emergency telephone number

+49 7522 795270 (only available during office hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].

2.2: Label elements

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

According to EC directives or the corresponding national regulations the product does not have to be labelled.

2.3 Other hazards

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description of the mixture: Aqueous solution of organic / inorganic compounds. Hazardous ingredients: Ethanediol, CMIT/MIT				
CAS No./ EC No./ Registration No.	% [w/w]	Name	Classification according to Regulation (EC) No 1278/2008 (CLP).	SCL and/or M-factor
102-21-1/ 203-473-3/ 01-2119456816-28-XXXX	< 10%	Ethanediol	Acute Tox. 4, H302	
55965-84-9/ Not applicable/ Not applicable	< 0.0014 %	reaction mass of: 5-chloro-2- methyl-4- isothiazolin-3- one [EC no. 247-500-7] and 2-methyl-2H - isothiazol-3-one [EC no. 220- 239-6]	Acute Tox. 3, H331; Acute Tox. 3; H311, Acute Tox. 3, H301; Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	Skin Corr. 1B; H314: C ≥ 0.6 %; Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 %; Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 %; Skin Sens. 1; H317: C ≥ 0.0015 % M-factor=10

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		(CMIT/MIT = 3/1).		
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Full text of H-statements: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Remove contaminated, saturated clothing immediately. In the case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

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

Following skin contact:

Wash immediately with soap and water. In case of skin irritation consult a physician.

Following 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.

Following ingestion:

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

Self-protection of the first aider:

First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed symptoms and effects:

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO₂), foam, water, extinguishing powder.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: None.

5.3 Advice for fire-fighters

Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Use personal protective equipment, see Section 8.

For emergency responders:

Use personal protective equipment, see Section 8.

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 contaminated areas thoroughly.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures: Use in well-ventilated areas. Handle and open container with care. Always close containers tightly after the removal of product. Wear personal protective clothing (see Section 8).

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Measures to prevent fire: This product is not flammable. No special fire protection measures are necessary.

Advice on general occupational hygiene: Avoid contact with skin, eyes and clothes. Provide eye shower and label its location conspicuously. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately. Wash contaminated clothing prior to re-use.

7.2 Conditions for safe storage, including any incompatibilities

No special measures are necessary.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Limit value type (country of origin)	Substance name	EC-No. CAS No.	Occupational exposure limit value		Monitoring and observation processes	Peak limitation	Source
			Long term	Short term			
IOELV (EU)	Ethanediol	203-473-3 107-21-1	52 mg/m ³ , 20 ppm; skin	104 mg/m ³ , 40 ppm; skin			2000/39 /EC
AGW (DE)	Ethanediol	203-473-3 107-21-1	26 mg/m ³ , 10 ml/m ³ 2(I);DF G, EU, H, Y, 11				TRGS 900

8.2 Exposure controls

Personal Protection

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Change contaminated clothing.

Eye/face protection: Safety glasses

Skin protection:

Full contact: Glove material: Nitrile rubber

Glove thickness: 0.11 mm

Break through time: > 480 min

Splash contact: Glove material: Nitrile rubber

Glove thickness: 0.11 mm

Break through time: > 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

This recommendation applies only to the product stated in this safety data sheet and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- (a) Appearance: Colorless to light yellow liquid (at 20°C and 101.3 kPa)
- (b) Odour: Odourless
- (c) Odour threshold: Does not apply, as substance is odourless
- (d) pH: 7.2 ± 0.2
- (e) Melting point / freezing point: No data available
- (f) Initial boiling point and boiling range: No data available
- (g) Flash point: No data available
- (h) Evaporation rate: No data available
- (i) Flammability (solid, gas): Does not apply
- (j) Upper/lower flammability or explosive limits: Does not apply, mixture is not flammable
- (k) Vapour pressure: No data available
- (l) Vapour density: No data available
- (m) Relative density: 1.02 (at 20°C)
- (n) Solubility(ies): Does not apply
- (o) Partition coefficient: n-octanol/water: No data available
- (p) Auto-ignition temperature: No data available
- (q) Decomposition temperature: No data available
- (r) Viscosity: No data available
- (s) Explosive properties: Does not apply, mixture is not explosive
- (t) Oxidising properties: None

9.2 Other information

No additional information relevant to safe use of the mixture.

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

No specific conditions to avoid

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: Mixture:

No data available

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Acute toxicity: Ingredients:

Ethanediol		
Oral	LD50	> 4500 mg/kg (rat)
Dermal	LD50	> 3500 mg/kg (mouse)
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)		
Oral	LD50	53 mg/kg (rat)

Skin corrosion/irritation: Mixture

No data available

Skin corrosion/irritation: Ingredients

Ethanediol: No irritant effect
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1): Skin - Rabbit, Result: Corrosive

Serious eye damage/irritation: Mixture:

No data available

Serious eye damage/irritation: Ingredients:

Ethanediol: Slight irritation
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1): Eyes - Rabbit, Result: Corrosive to eyes

Respiratory or skin sensitisation: Mixture:

No data available

Respiratory or skin sensitisation: Ingredients

Ethanediol: No sensitising effects known.
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1): SCL: Skin Corr. 1B; H314: C ≥ 0.6 %; Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 %; Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 %; Skin Sens. 1; H317: C ≥ 0.0015 %

Germ cell mutagenicity:

There are no data available for the ingredients.

Carcinogenicity:

There are no data available for the ingredients.

Reproductive toxicity:

There are no data available for the ingredients.

Specific target organ toxicity (single exposure):

There are no data available for the ingredients.

Specific target organ toxicity (repeated exposure):

There are no data available for the ingredients.

Aspiration hazard:

There are no data available for the ingredients.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available for the ingredients.

12.2 Persistence and degradability

There are no data available for the ingredients.

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12.3 Bioaccumulative potential

There are no data available for the ingredients.

12.4 Mobility in soil

There are no data available for the ingredients.

12.5 Results of PBT and vPvB assessment

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects:

There are no data available for the ingredients.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations.

Product / Packaging disposal:

Handle uncleaned containers like the product itself.

SECTION 14: Transport information

14.1. UN number

(ADR, RID, ADN, IMDG, IATA)

Not applicable

14.2. UN proper shipping name

(ADR, RID, ADN, IMDG, IATA)

Not applicable

14.3. Transport hazard class(es)

(ADR, RID, ADN, IMDG, IATA)

Not applicable

14.4. Packing group

(ADR, RID, ADN, IMDG, IATA)

Not applicable

14.5. Environmental hazards

None

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory Information

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

Authorisations and/or restrictions on use: None

Water Hazard Class 1, (Self-classification carried out according to VwVwS, 4. German Regulation)

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

Alteration to version 01: Trade name of preservative was deleted. Name of active substance of preservative is mentioned instead. No change in active substances or in concentrations.

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.

Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 AGW: Arbeitsplatzgrenzwert (Occupational Exposure Limit Value, German regulation)
 CAS No: Chemical Abstracts Service number
 CLP: Classification Labelling and Packaging Regulation
 EC: European Commission
 EC No: European Chemical number: EINECS, ELINCS or NLP
 EEC: European Economic Community
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 EU: European Union
 IATA: International Air Transport Association
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IMDG: International Maritime Dangerous Goods
 IOELV: Indicative Occupational Exposure Limit Value
 LD50: Lethal dose, 50%
 MARPOL: Marine Pollution
 NLP: No-longer Polymers
 RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
 SCL: Specific Concentration Limit
 TRGS: Technische Regeln für Gefahrstoffe (Technical rules for dangerous goods, German regulation)
 UN: United Nations
 VwVwS: Verwaltungsvorschrift wassergefährdende Stoffe (Regulation for water hazardous substances, German regulation)

Full text of H-Statements referred to under section 3

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Eye Irrit.	Eye irritation
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H331	Toxic if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
Skin Corr.	Skin corrosion
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitisation