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

1.1 Product identifier
Trade name/designation: Epi proColon Lysis Binding Buffer
Article no. (user): Epi proColon Plasma Quick Kit (M5-02-001)

Other means of identification
SDS0014

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

Relevant identified uses
remark:

- Epi proColon Plasma Quick Kit (M5-02-001)

Product categories [PC]
PC21 Laboratory chemicals

Process categories [PROC]
PROC15 Use as laboratory reagent

1.3 Details of the supplier of the safety data sheet

Importer/Only Representative
Epigenomics AG
Geneststrasse 5
D-10829 Berlin
P.O. Box: ---
Telephone: +49 (0)30 24345-0 (9:00 - 16:30)
Telefax: +49 (0)30 24345-555
E-mail: contact@epigenomics.com
www.epigenomics.com

1.4 Emergency telephone number
Giftnotruf Berlin: +49 (0)30 30686-700 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

health hazards
Acute Tox. 4

hazard statements for health hazards
H302 Harmful if swallowed.

health hazards
Acute Tox. 4

hazard statements for health hazards
H312 Harmful in contact with skin.

health hazards
Acute Tox. 4

hazard statements for health hazards
H332 Harmful if inhaled.

health hazards
Eye Dam. 1
hazard statements for health hazards
H318 Causes serious eye damage.

Environmental hazards
Aquatic Chronic 3

hazard statements for environmental hazards
H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Hazard components for labelling
Guanidiniumthiocyanat

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

Hazard pictograms

| GHS05 | GHS07 |

Signal word
Danger

Hazard statements

hazard statements for health hazards
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H318 Causes serious eye damage.

Hazard statements for environmental hazards:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention:
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+ P312 IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

Product identifiers
TRITON X-100 (CAS 9002-93-1)
Guanidiniumthiocyanat

Supplemental Hazard information (EU)

dangerous health properties
EUH032 Contact with acids liberates very toxic gas.

2.3 Other hazards
No data available
SECTION 3: Composition / information on ingredients

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

3.1/3.2 Substances/Mixtures

Hazardous ingredients
TRITON X-100 (CAS 9002-93-1) <25 %
Acute Tox. 4, H302 / Acute Tox. 4, H312 / Aquatic Chronic 2, H411

Guanidiniumthiocyanat >30 - <60 %
CAS 593-84-0
EC 209-812-1
Acute Tox. 4, H302 / Acute Tox. 4, H312 / Aquatic Chronic 3, H412

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Change contaminated, saturated clothing.

Following inhalation
Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Consult a doctor immediately in the case of inhaling spray mist and show him packing or label.

Following skin contact
After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

After eye contact
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.

After ingestion
Do not induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

Additional information
Do not allow run-off from fire-fighting to enter drains or water courses. The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2)
Extinguishing powder
Water spray
alcohol resistant foam
Unsuitable extinguishing media
High power water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
Nitrogen oxides (NOx)
Sulphur oxides
Carbon monoxide
Carbon dioxide (CO2)
Hydrogen cyanide (hydrocyanic acid)

5.3 Advice for firefighters
Special protective equipment for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

SECTION 6: Accidental release measures

Additional information
Clear spills immediately.

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Emergency procedures
Remove persons to safety. Provide adequate ventilation.

Personal precautions
Use personal protection equipment. Provide adequate ventilation.

Protective equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

For emergency responders
Personal protection equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 Environmental precautions
Suppress gases/vapours/mists with water spray jet. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up
For containment
Suitable material for taking up
Absorbing material, organic
Universal binder

For cleaning up
Suitable material for diluting or neutralizing
Water

Unsuitable material for diluting or neutralising
Acetic acid, diluted

6.4 Reference to other sections
Disposal: see section 13
Personal protection equipment: see section 8
Safe handling: see section 7
SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing. Wash contaminated clothing prior to re-use. Wash hands before breaks and after work. Apply skin care products after work. Use protective skin cream before handling the product.

Protective measures

Advices on safe handling
Avoid:
Inhalation of vapours or spray/mists
Skin contact
Eye contact
Wear personal protection equipment (refer to section 8). Use only in well-ventilated areas.

Measures to prevent fire
No special fire protection measures are necessary.

Measures to prevent aerosol and dust generation
Use only in well-ventilated areas.

Specific requirements or handling rules
The floor should be leak tight, jointless and not absorbent.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep/Store only in original container. Keep container tightly closed.

Hints on joint storage

Materials to avoid
Acid
Do not store together with:
Oxidising agent

Storage class
Non-combustible liquids

Further information on storage conditions
Keep only in the original container in a cool, well-ventilated place.

storage temperature  
>=15 - <=30 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

Additional information
Preventive industrial medical examinations are to be offered.

8.1 Control parameters

remark
Does not contain substances above concentration limits fixing an occupational exposure limit.
8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure
refer to chapter 7. No further action is necessary.

Personal protection equipment

Eye/face protection
Suitable eye protection
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material
NR (natural rubber, natural latex)
NBR (Nitrile rubber)
Butyl caoutchouc (butyl rubber)

additional hand protection measures
Check leak tightness/impermeability prior to use. Use gloves only once.

remark
Breakthrough times and swelling properties of the material must be taken into consideration.

Body protection

Suitable protective clothing
lab coat

Recommended material
Natural fibres (e.g. cotton)

Respiratory protection
Respiratory protection necessary at:
insufficient ventilation
insufficient exhaust

Suitable respiratory protection apparatus
Half-face mask (DIN EN 140)
ABEK-P1

Additional measures for respiratory protection
Filter types:A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m3 (0.1 % by vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m3 (0.5 % by vol.); class 3: maximum permitted contaminant concentration in inhaled air = 10000 mL/m3 (1.0 % by vol.)

Environmental exposure controls

Technical measures to prevent exposure
refer to chapter 7. No further action is necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Physical state
liquid
Colour
colourless
transparent

Odour
characteristic

<table>
<thead>
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<th>parameter</th>
<th>Method - source - remark</th>
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<tr>
<td>pH</td>
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<td>Melting point/freezing point</td>
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<td>Initial boiling point and boiling range</td>
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<td>Flash point (°C)</td>
<td>No flash point according to standard method.</td>
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<tr>
<td>Evaporation rate</td>
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<td>flammability</td>
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<td>Upper explosion limit</td>
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<td>Fat solubility (g/L)</td>
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<td>Auto-ignition temperature</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
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</tr>
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</table>

9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No information available.

10.2 Chemical stability
The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions
No information available.

10.4 Conditions to avoid
No information available.
10.5 Incompatible materials

Materials to avoid
Violent reaction with:
Acid
Release of:
Gases/vapours, toxic

10.6 Hazardous decomposition products
No information available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity
ingredient Guanidiniumthiocyanat
Acute oral toxicity 593 mg/kg

Effective dose
LD50:
Species:
Rat

ingredient TRITON X-100 (CAS 9002-93-1)
Acute oral toxicity 1800 mg/kg

Effective dose
LD50:
Species:
Rat

Skin corrosion/irritation
Assessment/classification
Causes skin irritation.

Respiratory or skin sensitisation

Sensitisation to the respiratory tract
Result / evaluation
no danger of sensitization.

Skin sensitisation
Result / evaluation
no danger of sensitization.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Overall Assessment on CMR properties
Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2.

SECTION 12: Ecological information

12.1 Toxicity
No information available.
12.2 Persistence and degradability
No information available.

12.3 Bioaccumulative potential
No information available.

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
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product
Waste disposal according to official state regulations.

Appropriate disposal / Package
Cleaned containers may be recycled. Handle contaminated packaging in the same way as the substance itself.

remark

Additional information
According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process. Hand over to officially registered waste disposal company.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th></th>
<th>Land transport (ADR/RID)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO-TI / IATA-DGR)</th>
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<td>14.4 Packing group</td>
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<td>14.5 ENVIRONMENTALLY HAZARDOUS</td>
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<tr>
<td>14.6 Special precautions for user</td>
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<td></td>
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</tr>
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<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
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<td></td>
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</tbody>
</table>

Additional information - Air transport (ICAO-TI / IATA-DGR)

remark
No dangerous good in sense of this transport regulation.
SECTION 15: Regulatory information

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

EU legislation

Other regulations (EU)

Regulation 96/82/EC for danger control following severe accidents with dangerous substances
Not subject to regulation 96/82/EC.

To follow
Regulation (EEC) No. 793/93 for evaluation and control of the risks to the environment of existing chemical substances.
Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
Regulation (EC) No. 648/2004 (Detergents regulation)

National regulations

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Relevant R-, H- and EUH-phrases (Number and full text)
R32 Contact with acids liberates very toxic gas.
H302, R20 Harmful if swallowed.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.
R41 Risk of serious damage to eyes.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
RS2/S3 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Key literature references and sources for data
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.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Trade name/designation: Epi proColon Wash A Concentrate
Article no. (user): Epi proColon Plasma Quick Kit (M5-02-001)

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

Relevant identified uses
remark
Epi proColon Plasma Quick Kit (M5-02-001)

Product categories [PC]
PC21 Laboratory chemicals

Process categories [PROC]
PROC15 Use as laboratory reagent

1.3 Details of the supplier of the safety data sheet

Importer/Only Representative
Epigenomics AG
Geneststrasse 5
D-10829 Berlin
P.O. Box: ---
Telephone: +49 (0)30 24345-0 (9:00 - 16:30)
Telefax: +49 (0)30 24345-555
E-mail: contact@epigenomics.com
www.epigenomics.com

1.4 Emergency telephone number
Giftnotruf Berlin: +49 (0)30 30686-700 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

health hazards
Acute Tox. 4

hazard statements for health hazards
H302 Harmful if swallowed.

health hazards
Acute Tox. 4

hazard statements for health hazards
H312 Harmful in contact with skin.

health hazards
Acute Tox. 4

hazard statements for health hazards
H332 Harmful if inhaled.

health hazards
Eye Dam. 1
hazard statements for health hazards
H318 Causes serious eye damage.

Environmental hazards
Aquatic Chronic 3

hazard statements for environmental hazards
H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements
Hazard components for labelling
Guanidiniumthiocyanat

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

Hazard pictograms

GHS05 GHS07

Signal word
Danger

Hazard statements

hazard statements for health hazards
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H318 Causes serious eye damage.

Hazard statements for environmental hazards:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention:
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+ P312 IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

Product identifiers
TRITON X-100 (CAS 9002-93-1)
Guanidiniumthiocyanat

Supplemental Hazard information (EU)
dangerous health properties
EUH032 Contact with acids liberates very toxic gas.

2.3 Other hazards
No data available
SECTION 3: Composition / information on ingredients

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

3.1/3.2 Substances/Mixtures

Hazardous ingredients
TRITON X-100 (CAS 9002-93-1) <25 %
- Acute Tox. 4, H302 / Acute Tox. 4, H332 / Eye Dam. 1, H318 / Aquatic Chronic 2, H411

Guanidiniumthiocyanat >30 - <60 %
- CAS 593-84-0
- EC 209-812-1
- Acute Tox. 4, H302 / Acute Tox. 4, H312 / Acute Tox. 4, H332 / Aquatic Chronic 3, H412

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Change contaminated, saturated clothing.

Following inhalation
Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Consult a doctor immediately in the case of inhaling spray mist and show him packing or label.

Following skin contact
After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

After eye contact
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.

After ingestion
Do not induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed
No data available

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

Additional information
Do not allow run-off from fire-fighting to enter drains or water courses. The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2)
Extinguishing powder
Water spray
alcohol resistant foam
Unsuitable extinguishing media
High power water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
Nitrogen oxides (NOx)
Sulphur oxides
Carbon monoxide
Carbon dioxide (CO2)
Hydrogen cyanide (hydrocyanic acid)

5.3 Advice for firefighters

Special protective equipment for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

SECTION 6: Accidental release measures

Additional information
Clear spills immediately.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures
Remove persons to safety. Provide adequate ventilation.

Personal precautions
Use personal protection equipment. Provide adequate ventilation.

Protective equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

For emergency responders

Personal protection equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 Environmental precautions
Suppress gases/vapours/mists with water spray jet. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up
Absorbing material, organic
Universal binder

For cleaning up

Suitable material for diluting or neutralizing
Water

Unsuitable material for diluting or neutralising
Acetic acid, diluted

6.4 Reference to other sections
Disposal: see section 13
Personal protection equipment: see section 8
Safe handling: see section 7
SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advises on general occupational hygiene
When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing. Wash contaminated clothing prior to re-use. Wash hands before breaks and after work. Apply skin care products after work. Use protective skin cream before handling the product.

Protective measures

Advises on safe handling
Avoid:
Inhalation of vapours or spray/mists
Skin contact
Eye contact

Protective measures

Wear personal protection equipment (refer to section 8). Use only in well-ventilated areas.

Measures to prevent fire
No special fire protection measures are necessary.

Measures to prevent aerosol and dust generation
Use only in well-ventilated areas.

Specific requirements or handling rules
The floor should be leak tight, jointless and not absorbent.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep/Store only in original container. Keep container tightly closed.

Hints on joint storage

Materials to avoid
Acid
Do not store together with:
Oxidising agent

Storage class
Non-combustible liquids

Further information on storage conditions
Keep only in the original container in a cool, well-ventilated place.

storage temperature  

>=15 - <=30 °C

7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

Additional information
Preventive industrial medical examinations are to be offered.

8.1 Control parameters

remark
Does not contain substances above concentration limits fixing an occupational exposure limit.
8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure
refer to chapter 7. No further action is necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection
Eye glasses with side protection

Skin protection

Suitable gloves type
Disposable gloves

Suitable material

NR (natural rubber, natural latex)
NBR (Nitrile rubber)
Butyl caoutchouc (butyl rubber)

additional hand protection measures
Check leak tightness/impermeability prior to use. Use gloves only once.

remark
Breakthrough times and swelling properties of the material must be taken into consideration.

Body protection

Suitable protective clothing
lab coat

Recommended material
Natural fibres (e.g. cotton)

Respiratory protection
Respiratory protection necessary at:
insufficient ventilation
insufficient exhaust

Suitable respiratory protection apparatus
Half-face mask (DIN EN 140)
ABEK-P1

Additional measures for respiratory protection
Filter types: A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m3 (0.1 % by vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m3 (0.5 % by vol.); class 3: maximum permitted contaminant concentration in inhaled air = 10000 mL/m3 (1.0 % by vol.)

Environmental exposure controls

Technical measures to prevent exposure
refer to chapter 7. No further action is necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid
**Colour**
colourless
transparent

**Odour**
characteristic

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Method - source - remark</th>
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<tr>
<td>pH</td>
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<td>Initial boiling point and boiling range</td>
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<td>Flash point (°C)</td>
<td>No flash point according to standard method.</td>
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<tr>
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<td>Vapour pressure</td>
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<tr>
<td>Density</td>
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<td>Fat solubility (g/L)</td>
<td>not determined</td>
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<tr>
<td>Water solubility (g/L)</td>
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<td>Partition coefficient: n-octanol/water</td>
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<td>Auto-ignition temperature</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
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</tr>
</tbody>
</table>

**9.2 Other safety information**
No data available

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**
No information available.

**10.2 Chemical stability**
The product is stable under storage at normal ambient temperatures.

**10.3 Possibility of hazardous reactions**
No information available.

**10.4 Conditions to avoid**
No information available.
10.5 Incompatible materials

Materials to avoid
Violent reaction with:
Acid
Release of:
Gases/vapours, toxic

10.6 Hazardous decomposition products
No information available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

ingredient Guanidiniumthiocyanat
Acute oral toxicity 593 mg/kg

Effective dose
LD50:
Species: Rat

ingredient TRITON X-100 (CAS 9002-93-1)
Acute oral toxicity 1800 mg/kg

Effective dose
LD50:
Species: Rat

Skin corrosion/irritation

Assessment/classification
Causes skin irritation.

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Result / evaluation
no danger of sensitization.

Skin sensitisation

Result / evaluation
no danger of sensitization.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Overall Assessment on CMR properties
Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2.

SECTION 12: Ecological information

12.1 Toxicity
No information available.
12.2 Persistence and degradability
No information available.

12.3 Bioaccumulative potential
No information available.

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
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product
Waste disposal according to official state regulations.

Appropriate disposal / Package
Cleaned containers may be recycled. Handle contaminated packaging in the same way as the substance itself.

remark

Additional information
According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process. Hand over to officially registered waste disposal company.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th></th>
<th>Land transport (ADR/RID)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO-TI / IATA-DGR)</th>
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<td>14.4 Packing group</td>
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<tr>
<td>14.5 ENVIRONMENTALLY HAZARDOUS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information - Air transport (ICAO-TI / IATA-DGR)

remark
No dangerous good in sense of this transport regulation.
SECTION 15: Regulatory information

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

EU legislation

Other regulations (EU)

Regulation 96/82/EC for danger control following severe accidents with dangerous substances
Not subject to regulation 96/82/EC.

To follow
Regulation (EEC) No. 793/93 for evaluation and control of the risks to the environment of existing chemical substances.
Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
Regulation (EC) No. 648/2004 (Detergents regulation)

National regulations

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Relevant R-, H- and EUH-phrases (Number and full text)
R32 Contact with acids liberates very toxic gas.
H302, R20 Harmful if swallowed.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.
R41 Risk of serious damage to eyes.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Key literature references and sources for data
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.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation: Epi proColon Magnetic Beads

Article no. (user): Epi proColon Plasma Quick Kit (M5-02-001)

Other means of identification

SDS 0016

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

Relevant identified uses

remark

Epi proColon Plasma Quick Kit (M5-02-001)

Product categories [PC]

PC21 Laboratory chemicals

Process categories [PROC]

PROC15 Use as laboratory reagent

1.3 Details of the supplier of the safety data sheet

Importer/Only Representative

Epigenomics AG
Geneststrasse 5
D-10829 Berlin
P.O. Box: ---
Telephone: +49 (0)30 24345-0 (9:00 - 16:30)
Telefax: +49 (0)30 24345-555
E-mail: contact@epigenomics.com
www.epigenomics.com

1.4 Emergency telephone number

Giftnotruf Berlin: +49 (0)30 30686-700 (24h)

SECTION 2: Hazards identification

Hazard designation:

This mixture is classified as not hazardous according to Regulation (EC) 1272/2008 [GHS]. The preparation is not dangerous in the sense of Directive 1999/45/EC.

2.1 Classification of the substance or mixture

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

remark

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2 Label elements

2.3 Other hazards

No data available

SECTION 3: Composition / information on ingredients

remark

Full text of R-, H- and EUH-phrases: see section 16.
3.1/3.2 Substances/Mixtures

Hazardous ingredients
sodium azide
   CAS 26628-22-8
   EC 247-852-1
   INDEX 011-004-00-7
   Acute Tox. 2, H300 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Remove contaminated, saturated clothing immediately.

Following inhalation
Provide fresh air. In case of irritation of the respiratory tract seek medical advice.

Following skin contact
Wash immediately with:
   Water and soap

After eye contact
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.

After ingestion
Rinse mouth immediately and drink plenty of water.

Self-protection of the first aider
First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed
No data available

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings. Do not allow run-off from fire-fighting to enter drains or water courses. In case of fire and/or explosion do not breathe fumes.

5.1 Extinguishing media
No data available

5.2 Special hazards arising from the substance or mixture
No data available

5.3 Advice for firefighters

Special protective equipment for firefighters:
Wear a self-contained breathing apparatus and chemical protective clothing.
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions
Use personal protection equipment.

Protective equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

For emergency responders

Personal protection equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

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

For containment

Suitable material for taking up:
Universal binder

6.4 Reference to other sections
Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advises on general occupational hygiene
Avoid contact with skin, eyes and clothes. When using do not eat, drink, smoke, sniff. Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. Remove contaminated, saturated clothing. Wash contaminated clothing prior to re-use. Wash hands before breaks and after work. Apply skin care products after work.

Protective measures

Advises on safe handling
Avoid:
Inhalation of vapours or spray/mists
Inhalation of dust/particles

Measures to prevent fire
No special fire protection measures are necessary.

Environmental precautions
See section 8.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep/Store only in original container. Keep container tightly closed.

Hints on joint storage

Materials to avoid
Do not store together with:
Strong acid
Storage class
Non-combustible liquids

Further information on storage conditions
storage temperature  >15 - <30 °C

7.3 Specific end use(s)
Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

Additional information
Preventive industrial medical examinations are to be offered.

8.1 Control parameters
Exposure limits at intended use

air limit values

<table>
<thead>
<tr>
<th>Limit value type (country of origin):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA (EC)</td>
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<tr>
<td>Substance name</td>
<td>Natriumazid</td>
</tr>
<tr>
<td>CAS No.</td>
<td>26628-22-8</td>
</tr>
<tr>
<td>EC No.</td>
<td>247-852-1</td>
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<tr>
<td>long-term occupational exposure limit value</td>
<td>&lt;=0,1 mg/m³</td>
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<tr>
<td>Substance name</td>
<td>Natriumazid</td>
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<tr>
<td>EC No.</td>
<td>247-852-1</td>
</tr>
<tr>
<td>long-term occupational exposure limit value</td>
<td>&lt;=0,3 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Exposure controls
Appropriate engineering controls
Technical measures to prevent exposure
refer to chapter 7. No further action is necessary.

Personal protection equipment
Eye/face protection
Suitable eye protection:
Eye glasses with side protection

Skin protection
Suitable gloves type:
Disposable gloves

Suitable material:
NR (natural rubber, natural latex)
Butyl caoutchouc (butyl rubber)

Required properties:
liquid-tight

additional hand protection measures
Check leak tightness/impermeability prior to use.
Breakthrough times and swelling characteristics of the material must be taken into consideration.

**Remark**
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. 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.

**Body protection:**

**Suitable protective clothing:**
lab coat

**Recommended material:**
Natural fibres (e.g. cotton)

**Respiratory protection**
Respiratory protection necessary at:
insufficient ventilation

**Suitable respiratory protection apparatus:**
Half-face mask (DIN EN 140) ABEK-P1

---

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

**Appearance**
**Physical state**
Suspension

**Colour**
red brown

**Odour**
odourless

**Odour threshold:**
odourless

<table>
<thead>
<tr>
<th>parameter</th>
<th>Method - source - remark</th>
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</thead>
<tbody>
<tr>
<td>pH</td>
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<tr>
<td>Melting point/freezing point</td>
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</tr>
<tr>
<td>Initial boiling point and boiling range</td>
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<tr>
<td>Flash point (°C)</td>
<td>No flash point up to 100 °C.</td>
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<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>flammability</td>
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<tr>
<td>Upper explosion limit</td>
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<td>lower explosion limit</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapour pressure</td>
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</tr>
<tr>
<td>Vapour density</td>
<td>not determined</td>
</tr>
<tr>
<td>Density</td>
<td>not determined</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and reactivity

10.1 Reactivity
No information available.

10.2 Chemical stability
The product is stable under storage at normal ambient temperatures.

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

Toxicokinetics, metabolism and distribution
Non-human toxicological data
remark
There are no data available on the preparation/mixture itself.

11.1 Information on toxicological effects
No information available.

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity
Acute (short-term) fish toxicity
ingredient sodium azide
Acute (short-term) fish toxicity 2.8 mg/L
Test duration 96 h
Acute (short-term) toxicity to crustacea

**ingredient** sodium azide

**Acute (short-term) toxicity to crustacea** 9 mg/L

**Test duration** 48 h

**ingredient** sodium azide

**Acute (short-term) toxicity to crustacea** 5.3 mg/L

**Effective dose**

**EC50**

**Test duration** 48 h

Acute (short-term) toxicity to aquatic algae and cyanobacteria

**ingredient** sodium azide

**Acute (short-term) toxicity to aquatic algae and cyanobacteria** 0.348 mg/L

**Effective dose**

**EC50**

**Test duration** 96 h

Additional ecotoxicological information

Phrase ID -1 Übersetzung (ISO-Code: en) nicht gefunden!!

Additional information
Discharge into the environment must be avoided.

12.2 Persistence and degradability

Assessment/classification
Biodegradable.

12.3 Bioaccumulative potential

Assessment/classification
not persistent.

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

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

**Appropriate disposal / Product**

Waste disposal according to official state regulations. Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in their latest versions.

**Appropriate disposal / Package**

Cleaned containers may be recycled. Contaminated packing must be completely emptied and can be re-used following appropriate cleaning. Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)  Sea transport (IMDG)  Air transport (ICAO-TI / IATA-DGR)
SECTION 15: Regulatory information

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

EU legislation

Other regulations (EU)

Regulation 96/82/EC for danger control following severe accidents with dangerous substances:
Not subject to regulation 96/82/EC.

To follow:
Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

National regulations

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Indication of changes
* Data changed compared with the previous version

Relevant R-, H- and EUH-phrases (Number and full text)
R32 Contact with acids liberates very toxic gas.
H300 Fatal if swallowed.
H410 Very toxic to aquatic life with long lasting effects.
R28 Very toxic if swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Key literature references and sources for data**
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.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Trade name/designation  Epi proColon Wash B Concentrate
Article no. (user):  Epi proColon Plasma Quick Kit (M5-02-001)

Other means of identification
SDS 0017

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

Relevant identified uses
remark
Epi proColon Plasma Quick Kit (M5-02-001)

Product categories [PC]
PC21 Laboratory chemicals

Process categories [PROC]
PROC15 Use as laboratory reagent

1.3 Details of the supplier of the safety data sheet

Importer/Only Representative
Epigenomics AG
Geneststrasse 5
D-10829 Berlin
P.O. Box: ---
Telephone: +49 (0)30 24345-0 (9:00 - 16:30)
Telefax: +49 (0)30 24345-555
E-mail: contact@epigenomics.com
www.epigenomics.com

1.4 Emergency telephone number
Giftnotruf Berlin: +49 (0)30 30686-700 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]
remark
This substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2 Label elements

2.3 Other hazards
No data available

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures
No data available
Hazardous ingredients
SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Change contaminated, saturated clothing.

Following inhalation
No special measures are necessary.

4.2 Most important symptoms and effects, both acute and delayed
No data available

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

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

5.1 Extinguishing media
No data available

5.2 Special hazards arising from the substance or mixture
No data available

5.3 Advice for firefighters
No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
No data available

6.2 Environmental precautions
No special environmental measures are necessary.

6.3 Methods and material for containment and cleaning up

For containment
Suitable material for taking up:
Absorbing material, organic

6.4 Reference to other sections
Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing.
Protective measures

Advises on safe handling
No special measures are necessary.

Measures to prevent fire
The product is not:
Combustible
Explosive
No special fire protection measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep/Store only in original container. Keep container tightly closed.

Hints on joint storage

Storage class
Non-combustible liquids

Further information on storage conditions

storage temperature  >=15 - <=30 °C

7.3 Specific end use(s)
No data available

SECTION 8: Exposure controls/personal protection

Additional information
Preventive industrial medical examinations are to be offered.

8.1 Control parameters
remark
Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 Exposure controls

Appropriate engineering controls
Technical measures to prevent exposure
refer to chapter 7. No further action is necessary.

Personal protection equipment

Eye/face protection
remark
Eye protection: not required.

Skin protection

Suitable gloves type:
Disposable gloves

Body protection:

Suitable protective clothing:
lab coat

Respiratory protection
remark
Usually no personal respirative protection necessary.
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
colourless

Odour
odourless

Odour threshold:
odourless

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<th>Method - source - remark</th>
</tr>
</thead>
<tbody>
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<td>pH</td>
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<td>Melting point/freezing point</td>
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</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>100 °C</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>No flash point according to standard method.</td>
</tr>
<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>flammability</td>
<td>not determined</td>
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<tr>
<td>Upper explosion limit</td>
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<tr>
<td>lower explosion limit</td>
<td>not determined</td>
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<tr>
<td>Vapour pressure</td>
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<td>Vapour density</td>
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</tr>
<tr>
<td>Density</td>
<td>1 g/cm³</td>
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<tr>
<td>Fat solubility (g/L)</td>
<td>Immiscible</td>
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<tr>
<td>Water solubility (g/L)</td>
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<td>Soluble (g/L) in</td>
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</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
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<tr>
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</tr>
<tr>
<td>Decomposition temperature</td>
<td>not determined</td>
</tr>
</tbody>
</table>

9.2 Other safety information

Physical hazards

Flammable aerosols

Assessment/classification
Not classified as flammable aerosol.

Flammable solids
Assessment/classification
Non-flammable.

SECTION 10: Stability and reactivity

10.1 Reactivity
No information available.

10.2 Chemical stability
The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

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

Acute toxicity

Acute oral toxicity >90000 mg/kg

Effective dose
LD50:
Species: Rat

Skin corrosion/irritation
Assessment/classification
Not an irritant.

Eye damage/irritation
In vitro eye test
Not an irritant.

Respiratory or skin sensitisation

Sensitisation to the respiratory tract
Result / evaluation
no danger of sensitization.

Skin sensitisation
Result / evaluation
not sensitising.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Overall Assessment on CMR properties
This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.
STOT-single exposure

STOT SE 3

Irritation to respiratory tract

Assessment/classification

May cause respiratory irritation.

SECTION 12: Ecological information

12.1 Toxicity
No information available.

12.2 Persistence and degradability
No information available.

12.3 Bioaccumulative potential
No information available.

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assessment
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product
Waste disposal according to official state regulations.

Appropriate disposal / Package
Completely emptied packings can be re-cycled.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th></th>
<th>Land transport (ADR/RID)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO-TI / IATA-DGR)</th>
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<td>14.1 UN-No.</td>
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<td>not applicable</td>
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<td>14.2 Proper Shipping Name</td>
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<tr>
<td>14.3 Class(es)</td>
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<tr>
<td>14.4 Packing group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.5 ENVIRONMENTALLY HAZARDOUS</td>
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<tr>
<td>14.6 Special precautions for user</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Additional information

All transport carriers
Not a hazardous material with respect to transportation regulations.

SECTION 15: Regulatory information

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

National regulations

15.2 Chemical Safety Assessment
For this substance a chemical safety assessment is not required.

SECTION 16: Other information

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Trade name/designation: Epi proColon Elution Buffer

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

1.3 Details of the supplier of the safety data sheet

1.4 Emergency telephone number

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]

2.2 Label elements

2.3 Other hazards

SECTION 3: Composition / information on ingredients

remark
Full text of R-, H- and EUH-phrases: see section 16.
3.1/3.2 Substances/Mixtures

Hazardous ingredients
2-Amino-2-hydroxymethyl-propane-1,3-diol  
>1 - <=2,5 %  
CAS 77-86-1  
EC 201-064-4  
Skin Irrit. 2, H315 / Eye Irrit. 2, H319 / STOT SE 3, H335

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Change contaminated, saturated clothing.

Following inhalation
Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

Following skin contact
After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

After eye contact
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.

After ingestion
If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let water be drunken in little sips (dilution effect).

4.2 Most important symptoms and effects, both acute and delayed
No data available

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

Additional information
The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings. Do not allow run-off from fire-fighting to enter drains or water courses.

5.1 Extinguishing media
No data available

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
Carbon monoxide  
Carbon dioxide (CO2)  
Nitrogen oxides (NOx)  
Hydrogen chloride (HCl)

5.3 Advice for firefighters

Special protective equipment for firefighters:
protective clothing. In case of fire: Wear self-contained breathing apparatus.
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures
Remove persons to safety. Provide adequate ventilation.

Personal precautions
Avoid dust formation. Use personal protection equipment.

Protective equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

For emergency responders

Personal protection equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 Environmental precautions

Suppress gases/vapours/mists with water spray jet. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up:
Absorbing material, organic

For cleaning up

Suitable material for diluting or neutralizing:
Water

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

Advises on general occupational hygiene
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing. Avoid contact with skin, eyes and clothes.

Protective measures

Advises on safe handling
Avoid:
Inhalation of vapours or spray/mists
Skin contact
Eye contact

Measures to prevent fire
The product is not:
Combustible
Explosive
No special fire protection measures are necessary.
Environmental precautions
See section 8.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep/Store only in original container. Keep container tightly closed.

Hints on joint storage
Storage class
Non-combustible liquids

Further information on storage conditions
storage temperature  >=15 - <=30 °C

7.3 Specific end use(s)
Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

Additional information
Preventive industrial medical examinations are to be offered.

8.1 Control parameters
remark
Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 Exposure controls
Appropriate engineering controls
Technical measures to prevent exposure
refer to chapter 7. No further action is necessary.

Personal protection equipment
Eye/face protection
Suitable eye protection:
Eye glasses with side protection

Skin protection
Suitable gloves type:
Disposable gloves
Suitable material:
NBR (Nitrile rubber)

Required properties:
liquid-tight
Thickness of the glove material  >=0,11 mm
Wearing time with occasional contact (splashes):  >=480 min
Wearing time with permanent contact  >=480 min

additional hand protection measures
Check leak tightness/impermeability prior to use. Use gloves only once.
remark
Breakthrough times and swelling properties of the material must be taken into consideration.
Body protection:

Suitable protective clothing:
lab coat

Respiratory protection
Respiratory protection necessary at:
prolonged exposure
Handling larger quantities
aerosol or mist formation

Suitable respiratory protection apparatus:
Full-/half-/quarter-face masks (DIN EN 136/140)
ABEK-P1

remark
Usually no personal respirative protection necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Physical state
liquid

Colour
colourless

Odour
odourless

Odour threshold:
odourless

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<th>Method - source - remark</th>
</tr>
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<tbody>
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<tr>
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<td>No flash point according to standard method.</td>
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<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>flammability</td>
<td>not determined</td>
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<tr>
<td>Upper explosion limit</td>
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<tr>
<td>lower explosion limit</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapour density</td>
<td>not determined</td>
</tr>
<tr>
<td>Density</td>
<td>not determined</td>
</tr>
<tr>
<td>Fat solubility (g/L)</td>
<td>Immiscible</td>
</tr>
<tr>
<td>Water solubility (g/L)</td>
<td>completely miscible</td>
</tr>
</tbody>
</table>
Soluble (g/L) in water: not determined
Partition coefficient: n-octanol/water: not determined
Auto-ignition temperature: not determined
Decomposition temperature: not determined

9.2 Other safety information
Physical hazards
Flammable aerosols
Assessment/classification
Not classified as flammable aerosol.
Flammable solids
Assessment/classification
Non-flammable.

SECTION 10: Stability and reactivity
10.1 Reactivity
No information available.

10.2 Chemical stability
The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
No information available.

10.5 Incompatible materials
Materials to avoid
Alkali (lye)
Oxidising agent

10.6 Hazardous decomposition products
Thermal decomposition can lead to the escape of irritating gases and vapours.

SECTION 11: Toxicological information
11.1 Information on toxicological effects
Acute toxicity

Acute oral toxicity
ingredient: 2-Amino-2-hydroxymethyl-propane-1,3-diol
Acute oral toxicity: 5900 mg/kg

Effective dose
LD50:
Species: Rat
skin corrosion/irritation
   Assessment/classification
   Irritating to skin.

Eye damage/irritation
   In vitro eye test
   Irritating to eyes.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Overall Assessment on CMR properties
This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

STOT-single exposure

STOT SE 3
   exposure route
   inhalative
   Assessment/classification
   May cause respiratory irritation.

STOT SE 3
Irritation to respiratory tract
   Assessment/classification
   May cause respiratory irritation.

SECTION 12: Ecological information

12.1 Toxicity
   No information available.

12.2 Persistence and degradability
   No information available.

12.3 Bioaccumulative potential
   No information available.

12.4 Mobility in soil
   No information available.

12.5 Results of PBT and vPvB assessment
   This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects
   No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
   Appropriate disposal / Product
   Waste disposal according to official state regulations.

   Appropriate disposal / Package
   Completely emptied packings can be re-cycled.
SECTION 14: Transport information

<table>
<thead>
<tr>
<th>Land transport (ADR/RID)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO-TI / IATA-DGR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN-No.</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
<tr>
<td>14.2 Proper Shipping Name</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
<tr>
<td>14.3 Class(es)</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
<tr>
<td>14.5 ENVIRONMENTALLY</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
<tr>
<td>HAZARDOUS</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td>not applicable</td>
<td>not applicable</td>
</tr>
</tbody>
</table>

Additional information

All transport carriers
Not a hazardous material with respect to transportation regulations.

SECTION 15: Regulatory information

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

National regulations

15.2 Chemical Safety Assessment
For this substance a chemical safety assessment is not required.

SECTION 16: Other information

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Relevant R-, H- and EUH-phrases (Number and full text)

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
R36/37/38 Irritating to eyes, respiratory system and skin.

Key literature references and sources for data
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.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation: Epi proColon Bisulfite Solution

Article no. (user): Epi proColon Plasma Quick Kit (M5-02-001)

Other means of identification

SDS 0019

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

Relevant identified uses

remark

Epi proColon Plasma Quick Kit (M5-02-001)

Product categories [PC]

PC21 Laboratory chemicals

Process categories [PROC]

PROC15 Use as laboratory reagent

1.3 Details of the supplier of the safety data sheet

Importer/Only Representative

Epigenomics AG
Geneststrasse 5
D-10829 Berlin
P.O. Box: ---
Telephone: +49 (0)30 24345-0 (9:00 - 16:30)
Telefax: +49 (0)30 24345-555
E-mail: contact@epigenomics.com
www.epigenomics.com

1.4 Emergency telephone number

Giftnotruf Berlin: +49 (0)30 30686-700 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

health hazards

Eye Irrit. 2

hazard statements for health hazards

H319 Causes serious eye irritation.

2.2 Label elements

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

Hazard pictograms

GHS07

Signal word

Warning
Hazard statements

hazard statements for health hazards
H319 Causes serious eye irritation.

Precautionary statements

Prevention:
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/doctor/ if you feel unwell.

Supplemental Hazard information (EU)
dangerous health properties
EUH031 Contact with acids liberates toxic gas.

2.3 Other hazards
No data available

SECTION 3: Composition / information on ingredients

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

3.1/3.2 Substances/Mixtures

Hazardous ingredients
Ammoniumhydrogensulfite
>60 - <80 %
CAS 10192-30-0
EC 233-469-7
Eye Irrit. 2, H319

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Change contaminated, saturated clothing.

Following inhalation
Provide fresh air. In case of respiratory tract irritation, consult a physician.

Following skin contact
After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

After eye contact
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.

After ingestion
If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let water be drunken in little sips (dilution effect). Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed
No data available
4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

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

5.1 Extinguishing media
No data available

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products
Can be released in case of fire:

5.3 Advice for firefighters
Special protective equipment for firefighters:
Wear a self-contained breathing apparatus and chemical protective clothing.

SECTION 6: Accidental release measures

Additional information
Clear spills immediately.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Emergency procedures
Remove persons to safety. Provide adequate ventilation.

Personal precautions
Use personal protection equipment.

Protective equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

For emergency responders

Personal protection equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 Environmental precautions
Suppress gases/vapours/mists with water spray jet. Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up:
Absorbing material, organic

For cleaning up

Suitable material for diluting or neutralizing:
Water

6.4 Reference to other sections
Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advises on general occupational hygiene
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. When using do not eat, drink, smoke, sniff. Work in well-ventilated zones or use proper respiratory protection. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing. Wash hands before breaks and after work. After cleaning apply high-fat content skin care cream.
In the immediate working surroundings there must be:
Provide eye shower and label its location conspicuously

Protective measures
Advises on safe handling
Use only in well-ventilated areas.

Measures to prevent fire
No special fire protection measures are necessary.

Measures to prevent aerosol and dust generation
Use only in well-ventilated areas.

Environmental precautions
See section 8.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep/Store only in original container. Keep container tightly closed.

Hints on joint storage

Materials to avoid
Do not store together with:
Acid
alkali

Storage class
Non-combustible corrosive substances (liquid)

Further information on storage conditions
Keep only in the original container in a cool, well-ventilated place.

storage temperature  15 - 30 °C

7.3 Specific end use(s)
No data available

SECTION 8: Exposure controls/personal protection

Additional information
Preventive industrial medical examinations are to be offered.

8.1 Control parameters
remark
Does not contain substances above concentration limits fixing an occupational exposure limit.
8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure
refer to chapter 7. No further action is necessary.

Personal protection equipment

Eye/face protection

Suitable eye protection:
Eye glasses with side protection

Skin protection

Suitable gloves type:
Disposable gloves

Required properties:
liquid-tight

additional hand protection measures
Check leak tightness/impermeability prior to use.

remark
Tested protective gloves must be worn
Breakthrough times and swelling properties of the material must be taken into consideration.

Body protection:

Suitable protective clothing:
lab coat

Recommended material:
Natural fibres (e.g. cotton)

Respiratory protection
Respiratory protection necessary at:
aerosol or mist formation

Suitable respiratory protection apparatus:
Filtering device (DIN EN 147)

B

Environmental exposure controls

Technical measures to prevent exposure
refer to chapter 7. No further action is necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
light yellow
light green

Odour
characteristic
like:
Sulphur dioxide (SO2)

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<thead>
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<th>parameter</th>
<th>Method - source - remark</th>
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<tbody>
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<td>pH</td>
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<td>Initial boiling point and boiling range</td>
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<tr>
<td>Flash point (°C)</td>
<td>No flash point according to</td>
</tr>
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<td></td>
<td>standard method.</td>
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<tr>
<td>Evaporation rate</td>
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<tr>
<td>flammability</td>
<td>not determined</td>
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<td>Upper explosion limit</td>
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<td>not determined</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not determined</td>
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<td>Vapour density</td>
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<td>Density</td>
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<td>Water solubility (g/L)</td>
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<td>Soluble (g/L)</td>
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<td>Auto-ignition temperature</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
<td>not determined</td>
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</table>

9.2 Other safety information

Physical hazards

Flammable aerosols

Assessment/classification

Not classified as flammable aerosol.

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

No information available.
10.5 Incompatible materials

**Materials to avoid**

Acid  
Alkali (lye)

10.6 Hazardous decomposition products

Endothermal decomposition with formation of:  
Ammonia  
Sulphur dioxide (SO2)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

**Eye damage/irritation**

*In vitro eye test*

strongly irritant.

**Respiratory or skin sensitisation**

**Sensitisation to the respiratory tract**

*Result / evaluation*

no danger of sensitization.

**Skin sensitisation**

*Result / evaluation*

not sensitising.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

**Overall Assessment on CMR properties**

This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

SECTION 12: Ecological information

12.1 Toxicity  
No information available.

12.2 Persistence and degradability

**Assessment/classification**

not persistent. Biodegradable.

12.3 Bioaccumulative potential

**Assessment/classification**

No indication of bioaccumulation potential.

**Assessment/classification**

not persistent. Biodegradable.

12.4 Mobility in soil  
No information available.

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects  
No information available.
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product
Waste disposal according to official state regulations.

Appropriate disposal / Package
Completely emptied packings can be re-cycled. Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>Land transport (ADR/RID)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO-TI / IATA-DGR)</th>
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<td>14.3 Class(es)</td>
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<tr>
<td>14.4 Packing group</td>
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<td></td>
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<tr>
<td>14.5 ENVIRONMENTALLY</td>
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<tr>
<td>HAZARDOUS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information - Land transport (ADR/RID)
remark
No dangerous good in sense of this transport regulation.

Additional information - Sea transport (IMDG)
remark
No dangerous good in sense of this transport regulation.

Additional information - Air transport (ICAO-TI / IATA-DGR)
remark
No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

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

EU legislation

To follow:
Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
Regulation (EC) No. 648/2004 (Detergents regulation)
Regulation (EEC) No. 793/93 for evaluation and control of the risks to the environment of existing chemical substances.

National regulations

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.
SECTION 16: Other information

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Relevant R-, H- and EUH-phrases (Number and full text)
H319 Causes serious eye irritation.
EUH031 Contact with acids liberates toxic gas.
R31 Contact with acids liberates toxic gas.
R36 Irritating to eyes.

Key literature references and sources for data
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.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation: Epi proColon Protection Buffer
Article no. (user): Epi proColon Plasma Quick Kit (M5-02-001)

Other means of identification
SDS 0020

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

Relevant identified uses

remark
Epi proColon Plasma Quick Kit (M5-02-001)

Product categories [PC]
PC21 Laboratory chemicals

Process categories [PROC]
PROC15 Use as laboratory reagent

1.3 Details of the supplier of the safety data sheet

Importer/Only Representative
Epigenomics AG
Geneststrasse 5
D-10829 Berlin
P.O. Box: ---
Telephone: +49 (0)30 24345-0 (9:00 - 16:30)
Telefax: +49 (0)30 24345-555
E-mail: contact@epigenomics.com
www.epigenomics.com

1.4 Emergency telephone number

Giftnotruf Berlin: +49 (0)30 30686-700 (24h)

SECTION 2: Hazards identification

Hazard description

Hazard designation:
The preparation is dangerous in the sense of Directive 1999/45/EC. This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

2.1 Classification of the substance or mixture

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

health hazards

Acute Tox. 4

hazard statements for health hazards
H302 Harmful if swallowed.

health hazards

Skin Irrit. 2

hazard statements for health hazards
H315 Causes skin irritation.

health hazards

Eye Irrit. 2

hazard statements for health hazards
H319 Causes serious eye irritation.

health hazards
Repr. 1B

hazard statements for health hazards
H360Df May damage the unborn child. Suspected of damaging fertility.

health hazards
STOT SE 3

hazard statements for health hazards
H335 May cause respiratory irritation.

2.2 Label elements

Hazard components for labelling
Tetrahydrofurfurylalkohol

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

Hazard pictograms

GHS07  GHS08

Signal word
Danger

Hazard statements

hazard statements for health hazards
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H360Df May damage the unborn child. Suspected of damaging fertility.

Precautionary statements

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

Prevention:
P201 Obtain special instructions before use.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage:
P405 Store locked up.

Product identifiers
Tetrahydrofurfurylalkohol
6-Hydroxy-2,5,7,8-Tetramethylchroman-2-Carboxylsäre
Special rules for supplemental label elements for certain mixtures
Restricted to professional users.

2.3 Other hazards
No data available

SECTION 3: Composition / information on ingredients

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

3.1/3.2 Substances/Mixtures
Hazardous ingredients

<table>
<thead>
<tr>
<th>Substance/Mixture</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>tetrahydrofurfuryl-alcohol</td>
<td>&gt;80 - &lt;100 %</td>
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<tr>
<td>CAS 97-99-4</td>
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</tr>
<tr>
<td>EC 202-625-6</td>
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<td>INDEX 603-061-00-7</td>
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<tr>
<td>Eye Irrit. 2, H319 / Repr. 1B, H360Df</td>
<td></td>
</tr>
<tr>
<td>6-Hydroxy-2,5,7,8-Tetramethylchroman-2-Carboxylsäure</td>
<td>&gt;1 - &lt;=20 %</td>
</tr>
<tr>
<td>CAS 53188-07-1</td>
<td></td>
</tr>
<tr>
<td>EC 258-422-8</td>
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</tr>
<tr>
<td>Skin Irrit. 2, H315 / Eye Irrit. 2, H319 / STOT SE 3, H335</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures
General information
Change contaminated, saturated clothing. 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. If unconscious place in recovery position and seek medical advice.

Following inhalation
Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

Following skin contact
After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

After eye contact
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.

After ingestion
Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Do not give fatty oils and milk.

Self-protection of the first aider
First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed
No data available

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor
Treat symptomatically.
SECTION 5: Firefighting measures

Additional information
Do not inhale explosion and combustion gases. Do not allow run-off from fire-fighting to enter drains or water courses. Co-ordinate fire-fighting measures to the fire surroundings.

Fire class

5.1 Extinguishing media

Suitable extinguishing media
alcohol resistant foam
Dry extinguishing powder
Carbon dioxide (CO2)
Water spray

Unsuitable extinguishing media
High power water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
Carbon monoxide
Carbon dioxide (CO2)

5.3 Advice for firefighters

Special protective equipment for firefighters:
Wear a self-contained breathing apparatus and chemical protective clothing.

SECTION 6: Accidental release measures

Additional information
Clear spills immediately.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures
Remove all sources of ignition. Remove persons to safety. Provide adequate ventilation.

Personal precautions
Use personal protection equipment. Special danger of slipping by leaking/spilling product.

Protective equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

For emergency responders

Personal protection equipment
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 Environmental precautions
Suppress gases/vapours/mists with water spray jet. Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up:
Absorbing material, organic
Universal binder
For cleaning up

Suitable material for diluting or neutralizing:
Water

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

Advices on general occupational hygiene
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. When using do not eat, drink, smoke, sniff. Work in well-ventilated zones or use proper respiratory protection. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing. Wash contaminated clothing prior to re-use. Wash hands before breaks and after work. Apply skin care products after work.

Protective measures

Advices on safe handling
Avoid:
Inhalation of vapours or spray/mists
Skin contact
Eye contact
Only use the material in places where open light, fire and other flammable sources can be kept away.

Measures to prevent fire
Keep away from:
Oxidising agent
The product is:
Combustible
When hot, product develops flammable vapours. Vapours can form explosive mixtures with air.

Measures to prevent aerosol and dust generation
Use only in well-ventilated areas.

Environmental precautions
Shafts and sewers must be protected from entry of the product.

Specific requirements or handling rules
Clean floors and contaminated objects with:
Water

7.2 Conditions for safe storage, including any incompatibilities

Hints on joint storage

Materials to avoid
Do not store together with:
Oxidising agent
Keep away from food, drink and animal feedingstuffs.

Storage class
Combustible liquids

Further information on storage conditions
Keep container tightly closed in a cool, well-ventilated place.

storage temperature  >=15 - <=30 °C
7.3 Specific end use(s)

Recommendation
Observe instructions for use.

SECTION 8: Exposure controls/personal protection

Additional information
Preventive industrial medical examinations are to be offered.

8.1 Control parameters
remark
Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 Exposure controls

Appropriate engineering controls
Technical measures to prevent exposure
refer to chapter 7. No further action is necessary.

Personal protection equipment

Eye/face protection
Suitable eye protection:
Eye glasses with side protection

Skin protection

Suitable gloves type:
Disposable gloves

Suitable material:
Butyl caoutchouc (butyl rubber)

Required properties:
liquid-tight

Breakthrough time (maximum wearing time) \( \geq 480 \text{ min} \)

Thickness of the glove material \( \geq 0.3 \text{ mm} \)

Wearing time with occasional contact (splashes): \( \leq 480 \text{ min} \)

Wearing time with permanent contact \( \leq 30 \text{ min} \)

additional hand protection measures
Check leak tightness/impermeability prior to use. Use gloves only once.

remark
Breakthrough times and swelling properties of the material must be taken into consideration.

Body protection:

Suitable protective clothing:
lab coat

Recommended material:
Natural fibres (e.g. cotton)

Respiratory protection
Respiratory protection necessary at:
insufficient ventilation
Handling larger quantities
aerosol or mist formation
Suitable respiratory protection apparatus:
Filtering device (full mask or mouthpiece) with filter:
A

Additional measures for respiratory protection
Filter types: A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m³ (0.1 % by vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m³ (0.5 % by vol.); class 3: maximum permitted contaminant concentration in inhaled air = 10000 mL/m³ (1.0 % by vol.)

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Physical state
liquid

Colour
light yellow
amber

Odour
characteristic

<table>
<thead>
<tr>
<th>parameter</th>
<th>Method - source - remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
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<tr>
<td>Melting point/freezing point</td>
<td>&lt; -80 °C</td>
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<td>Initial boiling point and boiling range</td>
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<td>Flash point (°C)</td>
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<td>Evaporation rate</td>
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<td>Upper explosion limit</td>
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<td>lower explosion limit</td>
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<td>lower explosion limit</td>
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<td>1 mbar, Temperature 25 °C</td>
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<td>Vapour pressure</td>
<td>2,3 mbar, Temperature 40 °C</td>
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<tr>
<td>Vapour density</td>
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<tr>
<td>Density</td>
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<td>Fat solubility (g/L)</td>
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<td>Water solubility (g/L)</td>
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<td>parameter</td>
<td>Method - source - remark</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Soluble (g/L) in</td>
<td>not determined</td>
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<td>Partition coefficient: n-octanol/water</td>
<td>not determined</td>
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<td>Auto-ignition temperature</td>
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<tr>
<td>Auto-ignition temperature</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
<td>not determined</td>
</tr>
</tbody>
</table>

9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No information available.

10.2 Chemical stability
The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions
In case of vaporization:
Ignition hazard
Danger of explosion

10.4 Conditions to avoid
No information available.

10.5 Incompatible materials

Materials to avoid
Formation of explosive mixtures with:
Air
Oxidising agent

10.6 Hazardous decomposition products
Thermal decomposition can lead to the escape of irritating gases and vapours.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute dermal toxicity  5000 mg/kg

   Effective dose
   LD50:
   Species: Guinea pig

Assessment/classification
Harmful in contact with skin and if swallowed. May cause respiratory irritation.

Acute oral toxicity

   ingredient tetrahydrofurfuryl-alcohol
   Acute oral toxicity  >1600 mg/kg
Effective dose
LD50:
Species:
Rat
ingredient 6-Hydroxy-2,5,7,8-Tetramethylchroman-2-Carboxylsäure

Acute oral toxicity 4300 mg/kg

Effective dose
LD50:
Species:
Rat

Eye damage/irritation
Exposure time 24 h
Species: Rabbit.

Assessment/classification
mild irritant.

STOT-single exposure
STOT SE 3
exposure route inhalative

Assessment/classification
May cause respiratory irritation.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity 3400 mg/L
Effective dose
LC50:
Test duration 48 h
species Rasbora heteromorpha

Acute (short-term) toxicity to aquatic algae and cyanobacteria 1600 mg/L
Effective dose
EC50
Test duration 15 min
species Photobacterium phosphoreum

12.2 Persistence and degradability

Biodegradation
remark
The single components are biodegradable.

Assessment/classification
Readily biodegradable (according to OECD criteria).
12.3 Bioaccumulative potential
Assessment/classification
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
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product
Waste disposal according to official state regulations.

Appropriate disposal / Package
Handle contaminated packaging in the same way as the substance itself. Cleaned containers may be recycled.

Waste code product 070708
hazardous waste Yes.

Waste name
other still bottoms and reaction residues

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>Land transport (ADR/RID)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO-TI / IATA-DGR)</th>
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</thead>
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<td>14.1 UN-No.</td>
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<tr>
<td>14.2 Proper Shipping Name</td>
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<tr>
<td>14.3 Class(es)</td>
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<tr>
<td>14.4 Packing group</td>
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<tr>
<td>14.5 ENVIRONMENTALLY HAZARDOUS</td>
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<td></td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
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<td></td>
</tr>
</tbody>
</table>

Additional information
All transport carriers
Not a hazardous material with respect to transportation regulations.
SECTION 15: Regulatory information

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

EU legislation

Other regulations (EU)

To follow:
Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

National regulations

Further details:
REACH
TSCA
EINECS/ELINCS

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Relevant R-, H- and EUH-phrases (Number and full text)
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.

Key literature references and sources for data
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.