

NZYGelpure

Article number: 55009

Safety Data Sheets of the following Kit Components:

55009-2	MB011 - Binding Buffer
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**Kit components,
according to CLP Regulation (EC) No. 1272/2008 not classified as
hazardous (Safety Data sheet is not required.):**

55009-1	MB011- Wash Buffer
55009-3	MB011- Elution Buffer
55009-4	MB011- NZYtech Spin Columns
55009-5	MB011- Collecting Tubes

Safety data sheet according to UK REACH

Printing date 11.07.2025

Version number 1

Revision: 11.07.2025

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

1.1 Product identifier

Trade name: **MB011 - Binding Buffer**



Article number: 55009-2

UFI: 7DA0-E0AM-T00Q-V6US

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

No further relevant information available.

Application of the substance / the mixture: Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

SERVA Electrophoresis GmbH

Carl-Benz-Str. 7

D-69115 Heidelberg

Tel.: +49 6221 13840-0

FAX: +49 6221 13840-10

msds.info@serva.de

Information department: Security Department Phone: +49 6221 13840-34

1.4 Emergency telephone number:

Emergency medical information in case of poisoning

Poison Information Centre Mainz-Tel: +49 (0) 6131 19240

(Counselling in German and English)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:



GHS05

Skin Corr. 1C

H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4

H302 Harmful if swallowed.

Aquatic Chronic 3

H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms: GHS05, GHS07

Signal word: Danger

Hazard-determining components of labelling:

guanidinium thiocyanate

methanol

Hazard statements:

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P260

Do not breathe dusts or mists.

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- P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **Additional information:**
EUH032 Contact with acids liberates very toxic gas.
EUH071 Corrosive to the respiratory tract.
 - **Labelling of packages where the contents do not exceed 125 ml**
 - **Hazard pictograms** GHS05, GHS07
 - **Signal word** Danger
 - **Hazard-determining components of labelling:**
guanidinium thiocyanate
methanol
 - **Hazard statements**
H314 Causes severe skin burns and eye damage.
 - **Precautionary statements**
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - **2.3 Other hazards**
 - **Results of PBT and vPvB assessment:**
 - **PBT:** PBT - Assessment not available.
 - **vPvB:** vPvB - Assessment not available.
 - **Determination of endocrine-disrupting properties** No further relevant information available.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Aqueous buffer solution

• **Dangerous components:**

CAS: 593-84-0 EINECS: 209-812-1	guanidinium thiocyanate ⚠ Skin Corr. 1C, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Aquatic Chronic 3, H412, EUH032, EUH071	40-80%
CAS: 67-56-1 EINECS: 200-659-6 Reg.nr.: 01-2119433307-44	methanol ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ STOT SE 1, H370 Specific concentration limits: STOT SE 1; H370: $C \geq 10 \%$ STOT SE 2; H371: $3 \% \leq C < 10 \%$	0.5-1.5%

- **Additional information**
The product does not contain any other substances that have to be declared according to UK REACH (Regulation (EC) No 1907/2006).
For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

· 4.1 Description of first aid measures

· After inhalation:

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

· After skin contact:

Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes with running water. Remove contact lenses if possible and continue rinsing. Consult an ophthalmologist immediately.

· After swallowing:

Rinse out mouth and consult a doctor.

Do not induce vomiting - risk of chemical burns!

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

No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· 5.2 Special hazards arising from the substance or mixture:

Formation of hazardous vapours and gases possible during heating or in case of fire.

In case of fire, the following can be formed, but not limited to:

Carbon monoxide and carbon dioxide

· 5.3 Advice for firefighters

· Protective equipment: Wear self-contained breathing apparatus.

· Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

Particular danger of slipping on leaked/spilled product.

Wear respiratory protection.

· 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up

Dispose contaminated material as waste according to section 13.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling: No special precautions are necessary if used correctly.

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- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original packaging.
- **Information about storage in one common storage facility:**
Store away from oxidising agents.
Do not store together with acids.
- **Further information about storage conditions:** Store containers tightly closed and dry.
- **7.3 Specific end use(s):** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

- **Components with limit values that require monitoring at the workplace:**

67-56-1 methanol (0.5-1.5%)

WEL	Short-term value: 333 mg/m ³ , 250 ppm
	Long-term value: 266 mg/m ³ , 200 ppm
Sk	

- **Additional information:** The lists that were valid during the creation were used as basis.

· 8.2 Exposure controls

- **Appropriate engineering controls:** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Store protective clothing separately.
Immediately remove all soiled and contaminated clothing
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.
- **Breathing equipment:**
Short term filter device:
Filter P2.
- **Hand protection:**
Protective gloves.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves:**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material:**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Nitrile rubber, NBR
- **Eye/face protection:** Tightly sealed goggles.
- **Body protection:** Protective work clothing.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information:

- | | |
|---|---|
| · Physical state: | Liquid |
| · Colour: | Orange |
| · Odour: | No relevant data available |
| · Melting point/freezing point: | No information available |
| · Boiling point or initial boiling point and boiling range: | No information available |
| · Flammability: | Based on available data, the classification criteria for flammable liquids are not met. |
| · Lower and upper explosion limit: | |
| · Lower: | No information available |
| · Upper: | No information available |
| · Flash point: | >60 °C |
| · Auto-ignition temperature: | 464 °C |
| · Decomposition temperature: | No information available |
| · pH at 20 °C: | 4.9-5.1 |
| · Viscosity: | |
| · Kinematic viscosity: | 2.24 mm ² /s (20°C) |
| · Dynamic viscosity: | 2.39 mPa s (20°C) |
| · Solubility: | |
| · Water: | Fully miscible |
| · Partition coefficient n-octanol/water (log value): | No information available |
| · Vapour pressure at 20 °C: | 23.6 hPa |
| · Density and/or relative density: | |
| · Density at 20 °C: | 1.07 g/cm ³ |
| · Relative density at 20 °C: | 1.07 |

· 9.2 Other information

- | | |
|---|--|
| · Appearance: | |
| · Form: | Liquid |
| · Important information on protection of health and environment, and on safety: | |
| · Explosive properties: | Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Not determined. |
| · Solvent content: | |
| · Organic solvents: | <1.0 % |

SECTION 10: Stability and reactivity

- 10.1 Reactivity: No further relevant information available.
- 10.2 Chemical stability:
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions: No further relevant information available.
- 10.4 Conditions to avoid: Avoid high temperatures, flames and sparks
- 10.5 Incompatible materials:
 - Avoid contact with:
 - Acids
 - Oxidising agents
- 10.6 Hazardous decomposition products: In case of fire: see section 5

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SECTION 11: Toxicological information

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

· **Acute toxicity:** Harmful if swallowed.

· LD/LC50 values that are relevant for classification:

593-84-0 guanidinium thiocyanate

Oral	LD50	593 mg/kg (rat)
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· Primary irritant effect:

· **Skin corrosion/irritation:** Causes severe skin burns and eye damage.

· **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.

· **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Based on available data, the classification criteria are not met.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

11.2 Information on other hazards:

· **Endocrine disrupting properties:** No relevant information available

SECTION 12: Ecological information

12.1 Toxicity:

· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability:** No further relevant information available.

· **12.3 Bioaccumulative potential:** No further relevant information available.

· **12.4 Mobility in soil:** No further relevant information available.

12.5 Results of PBT and vPvB assessment:

· **PBT:** PBT - assessment not available.

· **vPvB:** vPvB - assessment not available.

· **12.6 Endocrine disrupting properties:** For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects:

Additional ecological information:

General notes:

Do not allow product to reach ground water, water course or sewage system.

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Dispose of in accordance with official regulations.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation:

Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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SECTION 14: Transport information

· 14.1 UN number or ID number · ADR, IMDG, IATA	UN1760
· 14.2 UN proper shipping name · ADR · IMDG · IATA	1760 CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate) CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate) CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate solution)
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA	 · Class: 8 Corrosive substances. · Label: 8
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards	Not applicable.
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code	Warning: Corrosive substances. 80 F-A,S-B A SW2 Clear of living quarters.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category · Tunnel restriction code	3 E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1760 CORROSIVE LIQUID, N.O.S. (GUANIDINIUM THIOCYANATE), 8, III

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SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Poisons Act**

- **Regulated explosives precursors**

None of the ingredients is listed.

- **Regulated poisons**

None of the ingredients is listed.

- **Reportable explosives precursors**

None of the ingredients is listed.

- **Reportable poisons**

None of the ingredients is listed.

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 69

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

- **REGULATION (EU) 2019/1148**

- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS** (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

- **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

- **National regulations:**

- **Technical instructions (air):**

Class	Share in %
I	0.5-1.5

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.
H332 Harmful if inhaled.

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H370 Causes damage to organs.
 H371 May cause damage to organs.
 H412 Harmful to aquatic life with long lasting effects.
 EUH032 Contact with acids liberates very toxic gas.
 EUH071 Corrosive to the respiratory tract.

· **Department issuing SDS:** Product Safety Department

· **Contact:** +49 6221 13840-34

· **Date of previous version:** 11.07.2025

· **Abbreviations and acronyms:**

PBT: persistent, bioaccumulative, toxic substance (UK REACH)

vPvB: very persistent, very bioaccumulative substance (UK REACH)

UK REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

GB CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

UFI: Unique Formula Identifier

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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