

NZYGelpure

Article number: 55009

Safety Data Sheets of the following Kit Components:

55009-2	MB011 - Binding Buffer
---------	------------------------

**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

acc. to OSHA HCS

Date of issue: 07/11/2025

Reviewed on 07/11/2025

1 Identification

- **Product identifier**
- **Trade name:** MB011 - Binding Buffer
- **Other means of identification**
- **Article number:** 55009-2
- **Application of the substance / the mixture:** Laboratory chemicals
- **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
- **Emergency telephone number:**
Emergency medical information in case of poisoning
Poison Information Center Mainz-Tel: +49 (0) 6131 19240
(Advice in German and English)



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05

Skin corrosion 1C H314 Causes severe skin burns and eye damage.



GHS07

Acute toxicity - oral 4 H302 Harmful if swallowed.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:** GHS05, GHS07

- **Signal word:** Danger

- **Hazard-determining components of labeling:**

guanidinium thiocyanate
methanol

- **Hazard statements:**

Harmful if swallowed.
Causes severe skin burns and eye damage.

- **Precautionary statements**

Do not breathe dusts or mists.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

(Contd. on page 2)

US

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 07/11/2025

Reviewed on 07/11/2025

Trade name: MB011 - Binding Buffer

(Contd. of page 1)

Specific treatment (see on this label).

· **Information pertaining to particular dangers for man and environment:**· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 3

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 3

Fire = 2

Reactivity = 0

· **Other hazards**· **Results of PBT and vPvB assessment:**· **PBT:** PBT - Assessment not available.· **vPvB:** vPvB - Assessment not available.· **Classification according to (d)(1)(ii) of § 1910.1200**

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

· **Hazards not otherwise classified**

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**· **Description:** aqueous buffer solution· **Dangerous components:**

593-84-0	guanidinium thiocyanate	45-80%
67-56-1	methanol	0.1-1%

· **Additional information:**

The product does not contain any other substances that have to be declared according to REACH (Regulation (EC) No. 1907/2006).

For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· **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 existing contact lenses, if possible, and continue rinsing. Consult an ophthalmologist immediately.

· **After swallowing:**

Rinse mouth and seek medical advice.

Do not induce vomiting - risk of chemical burns!

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 07/11/2025

Reviewed on 07/11/2025

Trade name: MB011 - Binding Buffer

(Contd. of page 2)

- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂ extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
Formation of hazardous vapors and gases possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
- **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.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Particular danger of slipping on leaked/spilled product.
Wear respiratory protection.
- **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.
- **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).
- **Protective Action Criteria for Chemicals**

· PAC-1:

593-84-0	guanidinium thiocyanate	0.98 mg/m ³
67-56-1	methanol	530 ppm

· PAC-2:

593-84-0	guanidinium thiocyanate	11 mg/m ³
67-56-1	methanol	2100 ppm

· PAC-3:

593-84-0	guanidinium thiocyanate	65 mg/m ³
67-56-1	methanol	7200 ppm

- **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.

7 Handling and storage

- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original packaging.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 07/11/2025

Reviewed on 07/11/2025

Trade name: MB011 - Binding Buffer

(Contd. of page 3)

- **Information about storage in one common storage facility:**
Store away from oxidizing agents.
Do not store together with acids.
- **Further information about storage conditions:** Store container tightly closed and dry.
- **Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

67-56-1 methanol (0.1-1%)

PEL	Long-term value: 260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
TLV	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI

- **Ingredients with biological limit values:**

67-56-1 methanol (0.1-1%)

BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
-----	---

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **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
- **Protection of hands:**
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.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 07/11/2025

Reviewed on 07/11/2025

Trade name: MB011 - Binding Buffer

(Contd. of page 4)

- **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 protection:** Tightly sealed goggles
- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information:**
- **Physical state** Liquid
- **Color:** Orange
- **Odor:** No relevant data available
- **Melting point/Melting range:** No information available
- **Boiling point/Boiling range:** No information available
- **Flammability:** Based on available data, the classification criteria for flammable liquids are not met.
- **Explosion limits:**
- **Lower:** No information available
- **Upper:** No information available
- **Flash point:** >60 °C (>140 °F)
- **Auto igniting:** 464 °C (867.2 °F)
- **Decomposition temperature:** No information available
- **pH-value at 20 °C (68 °F):** 4.9-5.1
- **Viscosity:**
- **Kinematic:** 2.24 mm²/s (20°C)
- **Dynamic:** 2.39 mPas (20°C)
- **Solubility in / Miscibility with:**
- **Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** No information available
- **Vapor pressure at 20 °C (68 °F):** 23.6 hPa (17.7 mm Hg)
- **Vapor pressure:**
- **Density at 20 °C (68 °F):** 1.07 g/cm³ (8.92915 lbs/gal)
- **Relative density at 20 °C (68 °F):** 1.07
- **Particle characteristics** Not applicable.
- **Other information**
- **Appearance:**
- **Form:** Liquid
- **Important information on protection of health and environment, and on safety:**
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Not determined.
- **Solvent content:**
- **Organic solvents:** <1.0 %
- **VOC %:**
- **VOC content:** <1.00 %

10 Stability and reactivity

- **Reactivity:** No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 07/11/2025

Reviewed on 07/11/2025

Trade name: MB011 - Binding Buffer

(Contd. of page 5)

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

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:

593-84-0 guanidinium thiocyanate

Oral	LD50	593 mg/kg (rat)
------	------	-----------------

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- **Interactive effects** No interactive effects between components are known.
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)
--

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)
--

None of the ingredients is listed.

- **Alternative sources for toxicological information**

No non-standard sources for toxicological information where used.

12 Ecological information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:**
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 07/11/2025

Reviewed on 07/11/2025

Trade name: MB011 - Binding Buffer



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

(Contd. of page 6)

13 Disposal considerations

- **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.

14 Transport information

- | | |
|---|---|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | UN1760 |
| · UN proper shipping name | Corrosive liquids, n.o.s. (guanidinium thiocyanate) |
| · DOT | 1760 CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate) |
| · ADR | |
| · IMDG | CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate) |
| · IATA | CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate solution) |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 8 Corrosive substances |
| · Label | 8 |
| · ADR, IMDG, IATA | |
|  | |
| · Class: | 8 Corrosive substances |
| · Label: | 8 |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | III |
| · Environmental hazards | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 07/11/2025

Reviewed on 07/11/2025

Trade name: MB011 - Binding Buffer

(Contd. of page 7)

· **Transport/Additional information:**

· **ADR**

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **Special precautions for user**

Warning: Corrosive substances

· **Hazard identification number (Kemler code):** 80

· **EMS Number:**

F-A,S-B

· **Stowage Category**

A

· **Stowage Code**

SW2 Clear of living quarters.

· **UN "Model Regulation":**

UN 1760 CORROSIVE LIQUID, N.O.S. (GUANIDINIUM THIOCYANATE), 8, III

15 Regulatory information

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

No further relevant information available.

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

67-56-1 | methanol

· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

67-56-1 | methanol

· **Proposition 65**

None of the ingredients is listed.

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

67-56-1 | methanol

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

None of the ingredients is listed.

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 07/11/2025

Reviewed on 07/11/2025

Trade name: MB011 - Binding Buffer

(Contd. of page 8)

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms GHS05, GHS07

· Signal word Danger

· Hazard-determining components of labeling:

guanidinium thiocyanate

methanol

· Hazard statements

Harmful if swallowed.

Causes severe skin burns and eye damage.

· Precautionary statements

Do not breathe dusts or mists.

Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label).

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

· Department issuing SDS: Product Safety Department

· Contact: +49 6221 13840-34

· Date of previous version 07/11/2025

· Date of preparation 07/11/2025

· Abbreviations and acronyms:

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

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

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

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Acute toxicity - oral 4: Acute toxicity – Category 4

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