

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.11.2011

Version number 1

Revision: 26.07.2011

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

- **1.1. Product identifier**
- **Trade name:** Renlam®-M1
- **Article number:** 13825
- **1.2. Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** 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:** Product Safety department Tel.: +49 6221 13840-35
- **1.4. Emergency telephone number:** +49 6131 19240 (university hospital Mainz)

SERVA
Electrophoresis

2 Hazards identification

- **2.1. Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS09

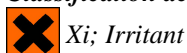
Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

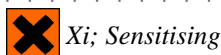
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36/38: Irritating to eyes and skin.



Xi; Sensitising

R43: May cause sensitisation by skin contact.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

- **2.2. Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS07, GHS09
- **Signal word** Warning

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.11.2011

Version number 1

Revision: 26.07.2011

Trade name: Renlam®-M1

(Contd. of page 1)

- **Hazard-determining components of labelling:**

reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)

- **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Contains epoxy constituents. May produce an allergic reaction.

- **Precautionary statements**

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash thoroughly after handling.

P305+P351+P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302+P352 **IF ON SKIN:** Wash with plenty of soap and water.

P332+P313 **If skin irritation occurs:** Get medical advice/attention.

- **2.3. Other hazards**

- **Results of PBT and vPvB assessment**

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








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

3 Composition/information on ingredients

- **3.2. Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

CAS: 25068-38-6	reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average	70-90%
NLP: 500-033-5	molecular weight ≤ 700)	
	 Xi R36/38;  Xi R43;  N R51/53	
	 Aquatic Chronic 2, H411;  Skin Irrit. 2, H315;  Eye Irrit. 2, H319;  Skin Sens. 1, H317	

- **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **4.1. Description of first aid measures**

- **General information** Remove contaminated clothing.

- **After inhalation** Supply fresh air and to be sure call for a doctor.

- **After skin contact** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

- **After swallowing** Drink copious amounts of water and provide fresh air. Call for doctor immediately.

- **Information for doctor**

- **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.

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**

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.11.2011

Version number 1

Revision: 26.07.2011

Trade name: Renlam®-M1

(Contd. of page 2)

- In certain fire conditions, traces of other toxic gases cannot be excluded.*
- **5.3. Advice for firefighters**
- **Protective equipment:** *Wear self-contained respiratory protective device.*

6 Accidental release measures

- **6.1. Personal precautions, protective equipment and emergency procedures** *Wear protective clothing.*
- **6.2. Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3. Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **6.4. Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **7.1. Precautions for safe handling** *Store in cool, dry place in tightly closed receptacles.*
- **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:** *No special requirements.*
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *Keep receptacle tightly sealed.*
- **7.3. Specific end use(s)** *No further relevant information available.*

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** *No further data; see item 7.*
- **8.1. Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** *The lists that were valid during the creation were used as basis.*
- **8.2. Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
Short term filter device:
Filter P2.
- **Protection of hands:**
Protective gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
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

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.11.2011

Version number 1

Revision: 26.07.2011

Trade name: Renlam®-M1

(Contd. of page 3)

· 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. 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:

Rubber gloves

Nitrile rubber, NBR

· Eye protection: Tightly sealed goggles.**· Body protection:** Protective work clothing.

9 Physical and chemical properties

· 9.1. Information on basic physical and chemical properties**· General Information****· Appearance:****Form:** Viscous**Colour:** Yellowish**· Odour:** Light**· pH-value at 20°C:** 7**· Change in condition****Melting point/Melting range:** undetermined**Boiling point/Boiling range:** > 200°C**· Flash point:** > 200°C**· Self igniting:** Product is not selfigniting.**· Danger of explosion:** Product does not present an explosion hazard.**· Density at 20°C:** 1.12 g/cm³**· Solubility in / Miscibility with****Water:** Not miscible or difficult to mix**· Viscosity:****dynamic at 20°C:** 1400 - 1800 mPas**· Solvent content:****Organic solvents:** 0.0 %**· VOC %:** 0.00 %**· 9.2. Other information** There are no more data available.

10 Stability and reactivity

· 10.1. Reactivity No further relevant informations available**· 10.2. Chemical stability****· Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.**· 10.3. Possibility of hazardous reactions**

Reacts with strong acids and alkali

Reacts with strong oxidizing agents

· 10.4. Conditions to avoid No further relevant information available.**· 10.5. Incompatible materials:** No further relevant information available.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.11.2011

Version number 1

Revision: 26.07.2011

Trade name: Renlam®-M1

(Contd. of page 4)

- **10.6. Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Poisonous gases/vapours

11 Toxicological information

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

- **LD/LC50 values that are relevant for classification:**

25068-38-6 reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)

Oral	LD50	>5000 mg/kg (rat)
------	------	-------------------

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

12 Ecological information

- **12.1. Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **12.2. Persistence and degradability** Not easily biodegradable
- **Behaviour in environmental systems:**
- **12.3. Bioaccumulative potential** No further relevant information available.
- **12.4. Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **12.5. Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **12.6. Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1. Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 6)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.11.2011

Version number 1

Revision: 26.07.2011

Trade name: Renlam®-M1

(Contd. of page 5)

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

14 Transport information

· **14.1. UN-Number**
· **ADR, IMDG, IATA**
· **ADN**

UN3082
Void

· **14.2. UN proper shipping name**
· **ADR**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (reaction product: bisphenol A-(epi-
chlorhydrin); epoxy resin (number average molecular
weight ≤ 700))

· **ADN**
· **IMDG, IATA**

Void
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (reaction product: bisphenol A-(epi-
chlorhydrin); epoxy resin (number average molecular
weight ≤ 700))

· **14.3. Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class**
· **Label**
· **ADN/R Class:**

9 Miscellaneous dangerous substances and articles.
9
Void

· **14.4. Packing group**
· **ADR, IMDG, IATA**

III

· **14.5. Environmental hazards:**

· **Marine pollutant:**

Yes
Symbol (fish and tree)

· **Special marking (ADR):**
· **Special marking (IATA):**

Symbol (fish and tree)
Symbol (fish and tree)

· **14.6. Special precautions for user**

Warning: Miscellaneous dangerous substances and
articles.

· **Danger code (Kemler):**
· **EMS Number:**

90
F-A,S-F

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

Not applicable.

· **Transport/Additional information:**

· **ADR**
· **Tunnel restriction code**

E

· **UN "Model Regulation":**

UN3082, ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S., 9, III

GB

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.11.2011

Version number 1

Revision: 26.07.2011

Trade name: **Renlam®-M1**

(Contd. of page 6)

15 Regulatory information

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

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**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

R36/38 Irritating to eyes and skin.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Department issuing MSDS:** Product safety department

- **Contact:** +49 6221 13840-35

- **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

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

- *** Data compared to the previous version altered.**