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

Printing date 24.11.2011 *Version number 1* *Revision: 04.10.2011*

*

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

· **1.1. Product identifier**

· **Trade name:** **Ethanol undenaturated 96%**

· **Article number:** 11094
· **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)

*

2 Hazards identification

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

GHS02

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

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

F; Highly flammable

R11: Highly flammable.
· **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 fom 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** GHS02
· **Signal word** Danger
· **Hazard statements**
H225 Highly flammable liquid and vapour.
· **Precautionary statements**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P240	Ground/bond container and receiving equipment.
P243	Take precautionary measures against static discharge.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3. Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.

(Contd. on page 2)

SERVA Electrophoresis GmbH

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

Printing date 24.11.2011 *Version number 1* *Revision: 04.10.2011*

Trade name: Ethanol undenaturated 96%

(Contd. of page 1)

· **vPvB:** *Not applicable.*

*

3 Composition/information on ingredients

· **3.2. Chemical characterization: Mixtures**
· **Description:** *Mixture of the substances listed below with harmless additions.*

· **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol	F R11 Flam. Liq. 2, H225	80-100%

· **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**
· **After inhalation** *Supply fresh air; consult doctor in case of complaints.*
· **After skin contact** *Immediately rinse with water.*
· **After eye contact** *Rinse opened eye for several minutes under running water.*
· **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** *Dizziness*
· **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** *No further relevant information available.*
· **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:**
Prevent seepage into sewage system, workpits and cellars.
Do not allow to enter sewers/ surface or ground water.
· **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** *Keep receptacles tightly sealed.*
· **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

(Contd. on page 3)

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

Printing date 24.11.2011 Version number 1 Revision: 04.10.2011

Trade name: Ethanol undenaturated 96%

(Contd. of page 2)

· **7.2. Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and receptacles:** *Store only in the original receptacle.*
· **Information about storage in one common storage facility:** *Not required.*
· **Further information about storage conditions:** *Store receptacle in a well ventilated area.*
· **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:**	
64-17-5 ethanol (80-100%)	
WEL ()	*Long-term value: 1920 mg/m³, 1000 ppm*

· **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** *Wash hands before breaks and at the end of work.*
· **Breathing equipment:**
Short term filter device:
Filter A/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
· **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 trough 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
Chloroprene rubber, CR
· **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:	*Fluid*
Colour:	*Colourless*
· **Odour:**	*Characteristic*

· **Change in condition**
Melting point/Melting range: *-114°C*

(Contd. on page 4)

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

Printing date 24.11.2011 Version number 1 Revision: 04.10.2011

Trade name: Ethanol undenaturated 96%

(Contd. of page 3)

Boiling point/Boiling range:	78°C
· **Flash point:**	12°C
· **Ignition temperature:**	425°C
· **Self igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· **Explosion limits:**	
Lower:	3.4 Vol %
Upper:	15 Vol %
· **Vapour pressure at 20°C:**	59 hPa
· **Density at 20°C:**	0.79 g/cm³
· **Solubility in / Miscibility with Water at 20°C:**	1000 g/l
· **Viscosity:**	
dynamic at 20°C:	1 mPas
· **Solvent content:**	
Organic solvents:	96.0 %
· **VOC %:**	96.00 %
· **VOC g/l:**	758.4 g/l
· **9.2. Other information**	The data specified above refer to ethanol (100 %).

*

10 Stability and reactivity

· **10.1. Reactivity**
· **10.2. Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **10.3. Possibility of hazardous reactions** No dangerous reactions known
· **10.4. Conditions to avoid** No further relevant information available.
· **10.5. Incompatible materials:** No further relevant information available.
· **10.6. Hazardous decomposition products:** No dangerous decomposition products known

*

11 Toxicological information

· **11.1. Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.

*

12 Ecological information

· **12.1. Toxicity**
· **Acquatic toxicity:** No further relevant information available.
· **12.2. Persistence and degradability** No further relevant information available.
· **Behaviour in environmental systems:**
· **12.3. Bioaccumulative potential** No further relevant information available.
· **12.4. Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

(Contd. on page 5)

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

Printing date 24.11.2011 Version number 1 Revision: 04.10.2011

Trade name: Ethanol undenaturated 96%

(Contd. of page 4)

· **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** Smaller quantities can be disposed of with household waste.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

*

14 Transport information

· **14.1. UN-Number**	
· **ADR, IMDG, IATA**	1170
· **14.2. UN proper shipping name**	
· **ADR**	1170 ETHANOL (ETHYL ALCOHOL)
· **IMDG**	ETHANOL (ETHYL ALCOHOL)
· **IATA**	Ethanol
· **14.3. Transport hazard class(es)**	
· **ADR**	
· **Class**	3 Flammable liquids.
· **Label**	3
· **IMDG, IATA**	
· **Class**	3 Flammable liquids.
· **Label**	3
· **14.4. Packing group**	
· **ADR, IMDG, IATA**	II
· **14.5. Environmental hazards:**	Not applicable.
· **Marine pollutant:**	No
· **14.6. Special precautions for user**	Warning: Flammable liquids.
· **Danger code (Kemler):**	33
· **EMS Number:**	F-E,S-D
· **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**	D1E

(Contd. on page 6)

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

Printing date 24.11.2011 *Version number 1* *Revision: 04.10.2011*

Trade name: Ethanol undenaturated 96%

(Contd. of page 5)

· **UN "Model Regulation":** UN1170, ETHANOL (ETHYL ALCOHOL), 3, II

*
15 Regulatory information

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

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
NK	80-100

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly 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**
H225 Highly flammable liquid and vapour.

R11 Highly flammable.

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