

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

Printing date 16.12.2011

Version number 1

Revision: 16.12.2011

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

- **1.1. Product identifier**
- **Trade name:** NC 2 Nitrocellulose Membrane, white
- **Article number:** 71224
- **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**



GHS02

Flam. Sol. 1 H228 Flammable solid.

- **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 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** GHS02

- **Signal word** Danger

- **Hazard statements**

H228 Flammable solid.

- **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

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

P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

- **2.3. Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

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· vPvB: Not applicable.

### 3 Composition/information on ingredients

- **3.1. Chemical characterization: Substances**
- **Identification number(s):**
- **Index number:** 603-037-00-6
- **3.2. Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with harmless additions.

· **Dangerous components:**

9004-70-0	cellulose nitrate	 F R11	40-70%
		 Flam. Sol. 1, H228	

- **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 wash with water and soap and rinse thoroughly.
- **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**  
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** Water spray
- **5.2. Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrogen cyanide (HCN)  
In certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:  
HNO<sub>3</sub>
- **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.  
Keep away from ignition sources
- **6.2. Environmental precautions:** Keep contaminated washing water and dispose of appropriately.
- **6.3. Methods and material for containment and cleaning up:** Ensure adequate ventilation.
- **6.4. Reference to other sections**  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## 7 Handling and storage

- **Handling**
- **7.1. Precautions for safe handling** Handle with care. Avoid jolting, friction and impact.
- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
  - Keep receptacle tightly sealed.
  - Store in dry conditions.
- **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** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **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 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:**
  - Cotton gloves
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

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## 9 Physical and chemical properties

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

#### · General Information

#### · Appearance:

Form:	Roll
Colour:	White
Odour:	Odourless

#### · Change in condition

Melting point/Melting range: undetermined

Boiling point/Boiling range: undetermined

· Flash point: Not applicable

· Flammability (solid, gaseous) Highly flammable.

· Ignition temperature: 170°C

· Self igniting: Product is not selfigniting.

· Danger of explosion: Risk of explosion by shock, friction, fire or other sources of ignition.

· Density: Not determined

#### · Solubility in / Miscibility with

Water: Insoluble

#### · Solvent content:

Organic solvents: 0.0 %

Solids content: 100.0 %

· 9.2. Other information Deflagration at 180 °C

## 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:

Nitrogen oxides

Hydrogen cyanide (prussic acid)

## 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

· Aquatic toxicity: No further relevant information available.

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

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- **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:** Generally not hazardous for water.
- **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.

### 14 Transport information

- |  |   |
|--|---|
| · <b>14.1. UN-Number</b><br>· <b>ADR, IMDG, IATA</b>                                     | UN3270  |
| · <b>14.2. UN proper shipping name</b><br>· <b>ADR</b><br>· <b>IMDG</b><br>· <b>IATA</b> | 3270 NITROCELLULOSE MEMBRANE FILTER<br>NITROCELLULOSE MEMBRANE FILTERS<br>Nitrocellulose membrane filters |
| · <b>14.3. Transport hazard class(es)</b><br>· <b>ADR</b>                                |   |
|       |   |
| · <b>Class</b><br>· <b>Label</b>   | 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.<br>4.1                  |
| · <b>IMDG, IATA</b>  |   |
|       |   |
| · <b>Class</b><br>· <b>Label</b>   | 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.<br>4.1                  |
| · <b>14.4. Packing group</b><br>· <b>ADR, IMDG, IATA</b>                                 | II  |
| · <b>14.5. Environmental hazards:</b><br>· <b>Marine pollutant:</b>                      | No  |
| · <b>14.6. Special precautions for user</b><br>· <b>Danger code (Kemler):</b>            | Warning: Flammable solids, self-reactive substances and solid desensitised explosives.<br>-               |

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· <b>EMS Number:</b>	F-A,S-I
· <b>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Tunnel restriction code</b>	E
· <b>UN "Model Regulation":</b>	UN3270, NITROCELLULOSE MEMBRANE FILTER, 4.1, II

**15 Regulatory information**

- **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Water hazard class:** Generally not 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**

H228 Flammable solid.

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.**

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