

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

Printing date 03.05.2018

Version number 3

Revision: 03.05.2018

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

- **1.1 Product identifier**
- **Trade name:** NC 45 Nitrocellulose Membrane, plain, white
- **Article number:** 71208
- **CAS Number:**  
9004-70-0
- **Index number:**  
603-037-01-3
- **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:** Product Safety department Tel.: +49 6221 13840-35
- **1.4 Emergency telephone number:**  
Medical Emergency Information in case of poisoning:  
Poison Information Center Mainz - Phone: +49 (0) 6131 19240  
(advisory service in German or English language)

**SERVA**  
■ serving scientists ■

**SECTION 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.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance 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, hot surfaces, sparks, open flames and other ignition sources. 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:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.

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**SECTION 3: Composition/information on ingredients**

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description:**  
9004-70-0 cellulose nitrate
- **Identification number(s):**
- **Index number:** 603-037-01-3

**SECTION 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. Remove present contact lenses, if easy to do, and continue rinsing. Consult ophthalmologist In case of complaints.
- **After swallowing** Drink copious amounts of water and provide fresh air. Call for doctor immediately.
- **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**  
CO<sub>2</sub>, 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 formed, but not limited to:  
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.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective clothing.  
Ensure adequate ventilation  
Keep away from ignition sources
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **6.3 Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Dispose contaminated material as waste according to item 13.
- **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** Ensure good ventilation/exhaustion at the workplace.

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- **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:** Keep away from sources of heat.
- **Information about storage in one common storage facility:**  
Do not store together with strong oxidizing agents.
- **Further information about storage conditions:** Keep receptacle tightly sealed and store in dry conditions.
- **7.3 Specific end use(s)** No further relevant information available.

**SECTION 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:** Not required.
- **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.  
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:** 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.
- **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.

**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Roll
<b>Colour:</b>	White
<b>Odour:</b>	Odourless

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· <b>Change in condition</b>	
Melting point/freezing point:	undetermined
Initial boiling point and boiling range:	undetermined
· <b>Flash point:</b>	12 °C
· <b>Flammability (solid, gaseous)</b>	Highly flammable.
· <b>Ignition temperature:</b>	> 160 °C
· <b>Self igniting:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Not determined.
· <b>Density:</b>	Not determined
· <b>Solubility in / Miscibility with</b>	
Water:	Insoluble
· <b>9.2 Other information</b>	No further relevant information available.

**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** Reacts with acids
- **10.4 Conditions to avoid** Avoid high temperatures, flames, sparks
- **10.5 Incompatible materials:** Avoid contact with strong oxidizers.
- **10.6 Hazardous decomposition products:** In case of fire: See Section 5

**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **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.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.

**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.
- **Additional ecological information:**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.

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- **vPvB:** vPvB - assessment not available.
- **12.6 Other adverse effects** No further relevant information available.

**SECTION 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.  
Disposal must be made according to official regulations.
- **Uncleaned packagings:**
- **Recommendation:**  
Disposal of uncleaned packagings must be made according to official regulations in the same manner as the product.

**SECTION 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, 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><br>· <b>EMS Number:</b> | Warning: Flammable solids, self-reactive substances and solid desensitised explosives.<br>-<br>F-A,S-I                |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>                     | Not applicable.   |
| · <b>Transport/Additional information:</b>   |   |
| · <b>ADR</b><br>· <b>Limited quantities (LQ)</b><br>· <b>Excepted quantities (EQ)</b>                | 1 kg<br>Code: E2<br>Maximum net quantity per inner packaging: 30 g<br>Maximum net quantity per outer packaging: 500 g |
| · <b>Transport category</b><br>· <b>Tunnel restriction code</b>                                      | 2<br>E  |

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1 kg
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
· <b>UN "Model Regulation":</b>	UN3270, NITROCELLULOSE MEMBRANE FILTER, 4.1, II

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 40**
- **National regulations**
- **Water hazard class:** At present there are no ecotoxicological assessments.
- **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.*

- **Department issuing SDS:** Product safety department
- **Contact:** +49 6221 13840-35
- **Abbreviations and acronyms:**  
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
 ICAO: International Civil Aviation Organisation  
 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)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Flam. Sol. 1: Flammable solids – Category 1
- **\* Data compared to the previous version altered.**

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