

Performance Benefits

- Range of membrane sizes
- Clinical and routine analysis
- Can be used in all machines
- High sensitivity
- Easy to handle
- Clear resolution
- Reproducible results

Principle

Hb Differentiation

The membrane is supplied in pre-cut dimensions for immediate use in all electrophoresis apparatus. Apacor supply a comprehensive range of ancillary products including, buffers, reagents and stains which have been optimised for use with Apacor Cellulose Acetate Membranes.

The electrophoretic separation and detection of haemoglobins is a principal application for Apacor Cellulose Acetate Membranes. The membrane provides unrivalled clarity for the diagnosis of haemoglobinopathies including Sickle Cell Diseases and Thalassemia.

Electrophoresis exploits the negative charge which haemoglobin will adopt under alkaline conditions; since each haemoglobin variant carries a different net charge, they will all migrate at different speeds. Following electrophoretic migration these fractions are visualised by staining and classified by comparison with known standards.

Haemoglobinopathies occur when production of normal adult haemoglobin is suppressed and replaced by one or more variants, or normal haemoglobins are produced in abnormal proportions. Screening can highlight these abnormalities before the onset of symptoms, allowing better patient management and counselling.

Procedure Overview

Serum Electrophoresis

Apacor Cellulose Acetate Membranes are indicated for use in the electrophoretic separations of serum proteins.

This process is the single most powerful tool to indicate the wellbeing of a patient, with a large spectrum of diseases indicated by atypical protein migration.

Electrophoretic separation exploits the speed of migration as determined by the protein charge.

Atypical protein bands indicate clinical significance.



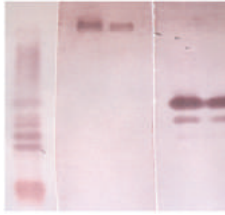
ELECTROPHORESIS



ELECTROPHORESIS

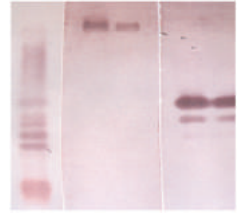
STAINING

Remove the membrane from the electrophoresis chamber and transfer to vessel containing Ponceau S Solution. Remove the excess with 5% acetic acid solution. Place the membrane in clearing solution. The membrane will clear, giving high resolution banding.



EXAMINATION Migrations patterns should be compared to a known control.

For quantitative determination, use densitometry or elute separated fractions. When using Ponceau S Solution, the densitometric scan should be undertaken at 525nm.



Ponceau S Solution

Product Code 51284

Product Overview

Ponceau S Solution is intended as a stain for haemoglobin, glycosylated haemoglobins, serum and other proteins following electrophoretic migration.



Adsorbent Paper

Product Code 82600

Product Overview

Apacor supply a range of adsorbent papers, which are used to blot the sample before media application. The papers are made from a special non-leaching high absorbency material, which allows fast preparation of the electrophoresis media.



PRODUCT	PACK SIZE	CODE
Cellulose Acetate Membrane 2.5 x 15.2cm	100	82000
Cellulose Acetate Membrane 5.5 x 14.4cm	50	82100
Cellulose Acetate Membrane 5.7 x 12.7cm	50	82200
Cellulose Acetate Membrane 5.7 x 14.4cm	50	82300
Supported Cellulose Acetate Membrane 5.7 x 14.4cm	50	82500
Adsorbent Paper 7.6 x 15.2cm	50	82600
Cellulose Acetate Membrane 5 x 20cm	50	82700

Products can be ordered direct from Apacor or from an appointed distributor
Visit our website for all the latest information www.apacor.com or email on: orders@apacor.com



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SAFETY DATASHEET

CELLULOSE ACETATE MEMBRANE



This Safety Datasheet complies with the requirements of Regulation (EC) No 1907/2006

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Product Identifier: 82000 / 82100 / 82200/ 82300 / 82500 / 82700

1.2 Relevant identified uses of the substance or mixture and uses advised against: Membrane used in hospitals and laboratories for electrophoresis.

1.3 Details of the supplier of the Safety Data Sheet:

Apacor Limited, Unit 5 Sapphire Centre, Fishponds Road, Wokingham, Berkshire, RG41 2QL, United Kingdom
+44 (0) 118 979 5566

technical@apacor.com

1.4 Emergency telephone number:

+44 (0)118 979 5566

(Monday-Friday 0900-1700 excluding UK Public Holidays)

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

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

This substance is not classified as dangerous according to Directive 67/548/EEC.

2.1.3 See Section 16 for the full text of R-phrases and H-Statements mentioned in this Section.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards

No significant target effects reported.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component: Cellulose diacetate

CAS No: 9035-69-2

EC No: not assigned

Index No: n/a

Classification: n/a

Concentration: >1%

Component: Cellulose triacetate

CAS No: 9012-09-3

EC No: not assigned

Index No: n/a

Classification: n/a

Concentration: >1%

Hazardous ingredients according to Directive 67/548/EEC

Component: Cellulose diacetate

CAS No: 9035-69-2

EC No: not assigned

Index No: n/a

Classification: n/a

Concentration: >1%

Component: Cellulose triacetate

CAS No: 9012-09-3

EC No: not assigned

Index No: n/a

Classification: n/a

Concentration: >1%

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled: If adverse effects occur, remove to uncontaminated area. Get medical attention.

In case of skin contact: Wash exposed skin with soap and water.

In case of eye contact: Flush eyes with plenty of water.

If swallowed: If a large amount is swallowed, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (Section 2.2) and/or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5 FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: carbon dioxide, regular dry chemical, regular foam, water

5.2 Special hazards arising from the substance or mixture

Slight fire hazard. Dust/air mixtures may ignite or explode.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary. Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

No data available.

6.2 Environmental precautions

Collect material in appropriate container for disposal. Keep out of water supplies and sewers.

6.3 Methods and material for containment and cleaning up

Collect material in appropriate container for disposal.

6.4 Reference to other sections

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CELLULOSE ACETATE MEMBRANE



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SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Use methods to minimize dust.

7.2 Conditions for safe storage, including any incompatibilities

Store and handle in accordance with all current regulations and standards. Avoid generating dust. See original container for storage recommendations. Keep separated from incompatible substances.

7.3 Specific end use(s)

No other specific uses are specified apart from those listed in Section 1.2.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

No occupational exposure limits established.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Based on available information, additional ventilation is not required. Ensure compliance with applicable exposure limits.

8.2.2 Personal protective equipment

(a) Eye/face protection

Eye protection not required under normal conditions.

(b) Skin protection

Protective gloves are not required under normal conditions.

(c) Body protection

Protective clothing is not required under normal conditions.

(d) Respiratory protection

No respirator is required under normal conditions of use.

Under conditions of frequent use or heavy exposure,

respiratory protection may be needed.

8.2.3 Environmental exposure controls

Keep out of water supplies and sewers.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) **Appearance** membrane

b) **Odour** slight acetate odour

c) **Odour threshold** no data available

d) **pH** no data available

e) **Melting point / freezing point** no data available

f) **Initial boiling point and boiling range** no data available

g) **Flash point** no data available

h) **Evaporation rate** no data available

i) **Flammability (solid, gas)** no data available

j) **Upper/lower flammability or explosive limits** no data available

k) **Vapour pressure** no data available

l) **Vapour density** no data available

m) **Relative density** no data available

n) **Solubility(ies)** no data available

o) **Partition coefficient: n-octanol/water** no data available

p) **Auto-ignition temperature** no data available

q) **Decomposition temperature** no data available

r) **Viscosity** no data available

s) **Explosive properties** no data available

t) **Oxidising properties** no data available

9.2 **Other information** no data available

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable at normal temperatures and pressure.

10.3 Possibility of hazardous reactions

Will not polymerize.

10.4 Conditions to avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

10.5 Incompatible materials

Oxidizing materials.

10.6 Hazardous decomposition products

Thermal decomposition products: oxides of carbon.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information of toxicological effects

Acute toxicity: no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity: IARC: no component of this product present at levels greater than 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information

Cellulose triacetate:

>1000 mg/kg skin-guinea pig LD50 (Van Waters & Rogers);

>3200 mg/kg oral-rat LD50 (Van Waters & Rogers)

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

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CELLULOSE ACETATE MEMBRANE



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12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

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12.7 Additional information

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SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

14.1 UN number -

14.2 UN proper shipping name -

14.3 Transport hazard class(es) -

14.4 Packing group -

14.5 Environmental hazards -

14.6 Special precautions for user -

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

Not intended to be transported in bulk.

SECTION 15 REGULATORY INFORMATION

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

European regulations: not determined.

US regulations: not regulated.

Canadian regulations: not determined.

15.2 Chemical Safety Assessment

Chemical safety assessment has not been carried out for this product.

SECTION 16 OTHER INFORMATION

The above products contain no hazardous or carcinogenic chemical in concentrations above the levels (1% and 0.1%, respectively) considered reportable.

However, the products should be handled with the care normally shown when handling laboratory chemicals and may be disposed of by any means considered appropriate for non-hazardous laboratory chemicals.

The information supplied in this MSDS is correct to the best of our knowledge. We do not accept any liability for loss, injury or damage, which may result from its use.



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