

Revision date 14-Nov-2023

Revision Number 1.1

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

### 1.1. Product identifier

<b>Product Name</b>	Trans-Blot Transfer Medium 0.2, 0.45 micron
<b>Catalogue Number(s)</b>	1620082, 1620112, 1620113, 1620114, 1620115, 1620116, 1620117, 1620145, 1620146, 1620147, 1620148, 1620150, 1620167, 1620168, 1620251, 1620252, 1703202, 1620112EDU, 1620113EDU, 1620114EDU, 1620115EDU, 1620116EDU, 1620117EDU, 1620145EDU, 1620146EDU, 1620147EDU, 1620148EDU, 1620150EDU, 1620167EDU, 1620168EDU, 1703202EDU
<b>Nanoforms</b>	Not applicable
<b>EC No (EU Index No)</b>	(603-037-00-6)
<b>CAS No</b>	9004-70-0
<b>Pure substance/mixture</b>	Substance

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

<b>Recommended use</b>	Laboratory chemicals
<b>Uses advised against</b>	No information available

### 1.3. Details of the supplier of the safety data sheet

#### Corporate Headquarters

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### Manufacturer

Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
USA

#### Legal Entity / Contact Address

Bio-Rad Laboratories Ltd  
The Junction  
Station Road  
Watford, WD17 1ET  
UK

Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India

Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

For further information, please contact

<b>Technical Service</b>	00800 00246 723 Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com South Africa: cdg_techsupport_eemea@bio-rad.com
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### 1.4. Emergency telephone number

24 Hour Emergency Phone Number	CHEMTREC Ireland: 353-19014670 CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611
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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flammable solids	Category 1
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### 2.2. Label elements



Signal word

Danger

### Hazard statements

H228 - Flammable solid

### Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P240 - Ground and 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 dry chemical, CO2, water spray or alcohol-resistant foam to extinguish

### 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Nitrocellulose 9004-70-0	50 - 100	No data available	(603-037-00-6)	Flam. Sol. 1 (H228)	-	-	-

Full text of H- and EUH-phrases: see section 16

### Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Nitrocellulose 9004-70-0	5000	No data available	No data available	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Rinse mouth.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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### 4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

### 5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
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### 5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take
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precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

**Other information**

Ventilate the area.

**For emergency responders**

Use personal protection recommended in Section 8.

**6.2. Environmental precautions****Environmental precautions**

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**6.3. Methods and material for containment and cleaning up****Methods for containment**

Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Keep out of drains, sewers, ditches and waterways.

**Methods for cleaning up**

Take precautionary measures against static discharges. Pick up and transfer to properly labelled containers.

**Prevention of secondary hazards**

Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections****Reference to other sections**

See section 8 for more information. See section 13 for more information.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling****Advice on safe handling**

Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions.

**General hygiene considerations**

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

**7.2. Conditions for safe storage, including any incompatibilities****Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store according to product and label instructions.

**7.3. Specific end use(s)****Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters****Exposure Limits**

This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

#### Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)** No information available.  
**Predicted No Effect Concentration (PNEC)** No information available.

#### 8.2. Exposure controls

##### Personal protective equipment

**Eye/face protection** Tight sealing safety goggles.

**Hand protection** Wear suitable gloves. Impervious gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

**Environmental exposure controls** No information available.

## SECTION 9: Physical and chemical properties

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

**Physical state** Solid  
**Appearance** Nitrocellulose membrane filters  
**Colour** white  
**Odour** Odourless.  
**Odour threshold** No information available

Property	Values	Remarks • Method
<b>Melting point / freezing point</b>	No data available	None known
<b>Initial boiling point and boiling range</b>	No data available	None known
<b>Flammability</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	15	
<b>Lower flammability or explosive limits</b>	3.5	
<b>Flash point</b>	12.8 °C	
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>pH</b>	No data available	None known
<b>pH (as aqueous solution)</b>	No data available	No information available
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b>Water solubility</b>	Insoluble in water	
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known

Vapour pressure	No data available	None known
Relative density	1.66	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

**9.2. Other information****9.2.1. Information with regards to physical hazard classes**

Not applicable

**9.2.2. Other safety characteristics**

No information available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Reactivity No information available.

**10.2. Chemical stability**

Stability Stable under normal conditions.

**Explosion data**

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

**10.3. Possibility of hazardous reactions**

Possibility of hazardous reactions None under normal processing.

**10.4. Conditions to avoid**

Conditions to avoid Heat, flames and sparks.

**10.5. Incompatible materials**

Incompatible materials None known based on information supplied.

**10.6. Hazardous decomposition products**

Hazardous decomposition products None known based on information supplied.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure****Product Information**

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** No information available.

**Acute toxicity****Numerical measures of toxicity**

No information available

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Nitrocellulose	> 5 g/kg ( Rat )	-	-

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitisation** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**11.2. Information on other hazards****11.2.1. Endocrine disrupting properties**

**Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors.

**11.2.2. Other information**

**Other adverse effects** No information available.

**SECTION 12: Ecological information****12.1. Toxicity**

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

**12.2. Persistence and degradability**

**Persistence and degradability** No information available.

### 12.3. Bioaccumulative potential

**Bioaccumulation** There is no data for this product.

### 12.4. Mobility in soil

**Mobility in soil** No information available.

### 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment** No information available.

### 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

### 12.7. Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

## SECTION 14: Transport information

### IATA

**14.1 UN number or ID number** UN3270  
**14.2 UN proper shipping name** Nitrocellulose membrane filters  
**14.3 Transport hazard class(es)** 4.1  
**14.4 Packing group** II  
**Description** UN3270, Nitrocellulose membrane filters, 4.1, II  
**14.5 Environmental hazards** Not applicable  
**14.6 Special Precautions for Users**  
**Special Provisions** A73, A122

### IMDG

**14.1 UN number or ID number** UN3270  
**14.2 UN proper shipping name** NITROCELLULOSE MEMBRANE FILTERS  
**14.3 Transport hazard class(es)** 4.1  
**14.4 Packing group** II  
**Description** UN3270, NITROCELLULOSE MEMBRANE FILTERS, 4.1, II  
**14.5 Environmental hazards** Not applicable  
**14.6 Special Precautions for Users**  
**Special Provisions** 237, 286  
**EmS-No** F-A, S-I  
**14.7 Maritime transport in bulk according to IMO instruments** No information available



**RID**

14.1 UN number	UN3270
14.2 UN proper shipping name	NITROCELLULOSE MEMBRANE FILTERS
14.3 Transport hazard class(es)	4.1
14.4 Packing group	II
Description	UN3270, NITROCELLULOSE MEMBRANE FILTERS, 4.1, II
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	237, 286
Classification code	F1

**ADR**

14.1 UN number or ID number	3270
14.2 UN proper shipping name	NITROCELLULOSE MEMBRANE FILTERS
14.3 Transport hazard class(es)	4.1
14.4 Packing group	II
Description	3270, NITROCELLULOSE MEMBRANE FILTERS, 4.1, II
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	237, 286
Classification code	F1
Tunnel restriction code	(E)

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Germany**

Water hazard class (WGK) non-hazardous to water (nwg)

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**International Inventories**

Contact supplier for inventory compliance status

**15.2. Chemical safety assessment****Chemical Safety Report**

No information available

## SECTION 16: Other information

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under section 3

H228 - Flammable solid

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

#### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method
Flammable solids	On basis of test data

#### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
 European Chemicals Agency (ECHA) (ECHA\_API)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGL(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 National Institute of Technology and Evaluation (NITE)  
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
 Organisation for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

**Revision Note** Reformatted and updated existing information

**Revision date** 14-Nov-2023

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**