

Revision date 28-Jan-2022

Revision Number 2

1. IDENTIFICATION

Product identifier

Product Name Supported Nitrocellulose Membrane 0.22, 0.45 micron

Other means of identification

Catalogue Number(s) 1620090, 1620091, 1620092, 1620093, 1620094, 1620095, 1620096, 1620097, 1620070, 1620254, 1620070EDU, 1620071EDU, 1620090EDU, 1620094EDU, 1620095EDU, 1620097EDU

UN/ID no UN3270

Registration Number(s) No information available

Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

Supplier's details

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
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Legal Entity / Contact Address

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India: support.india@bio-rad.com
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Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC India: 000-800-100-7141
CHEMTREC South Africa: 0-800-983-611

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Flammable solids

Category 1

GHS Label elements, including precautionary statements



Signal word**Danger**

Flammable solid

Precautionary Statements - Prevention

Ground and bond container and receiving equipment

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

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

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

Fire

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Other hazards which do not result in classification

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS**Substance**

Chemical name	CAS No	Weight-%
Nitrocellulose 9004-70-0	9004-70-0	100

4. FIRST AID MEASURES**Description of necessary first aid measures****Inhalation**

Remove to fresh air.

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

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.

Ingestion

Rinse mouth thoroughly with water.

For emergency responders**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).

Most important symptoms and effects, both acute and delayed**Symptoms**

No information available.

Indication of immediate medical attention and special treatment needed, if necessary**Note to physicians**

Treat symptomatically.

5. FIREFIGHTING MEASURES**Suitable Extinguishing Media****Suitable Extinguishing Media**

Dry chemical. Carbon dioxide (CO2). 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.

Specific hazards arising from the chemical

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.

Special protective actions for fire-fighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

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 precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

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.

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 vapor suppressing foam may be used to reduce vapors. Keep out of drains, sewers, ditches and waterways.

Methods for cleaning up Take precautionary measures against static discharges. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Other information Ventilate the area.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapors 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.

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 labeled 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

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

Hand protection Wear suitable gloves. Impervious gloves.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid	Odour	Odourless
Appearance	Nitrocellulose membrane filters	Odour threshold	No information available
Colour	white		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH		No information available	
Melting point / freezing point		No information available	
Boiling point / boiling range		No information available	
Flash point	12.8 °C / 55 °F		
Evaporation rate		No information available	
Flammability (solid, gas)		No information available	
Upper/lower flammability or explosive limits			
Upper flammability or explosive limits	15		
Lower flammability or explosive limits	3.5		
Vapour pressure		No information available	
Vapour density		No information available	
Relative density		No information available	
Solubility(ies)			
Water solubility	Insoluble in water		
Solubility in other solvents		No information available	
Partition coefficient		No information available	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity			
Kinematic viscosity		No information available	
Dynamic viscosity			

Other information

Oxidising properties Not applicable

10. STABILITY AND REACTIVITY**Reactivity**

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None

Sensitivity to static discharge Yes.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid Heat, flames and sparks.

Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

11. TOXICOLOGICAL INFORMATION**Information on the 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 No information available.

Acute toxicity**Numerical measures of toxicity**

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

5,005.00 mg/kg

Component Information

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

Delayed and immediate effects and also chronic effects from short and long term exposure

Skin corrosion/irritation No information available.

Serious eye damage/irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Chemical name	IARC
Nitrocellulose	Group 2A

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Toxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

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

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility

Mobility in soil No information available.

Mobility No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

IMDG

UN number or ID number	UN3270
UN proper shipping name	Nitrocellulose membrane filters
Description	UN3270, NITROCELLULOSE MEMBRANE FILTERS, 4.1, II
Transport hazard class(es)	4.1
Packing group	II
Marine pollutant	NP
Special Provisions	237, 286
EmS-No	F-A, S-I
Transport in bulk according to Annex II of MARPOL and the IBC Code	No information available

IATA

UN number or ID number	UN3270
UN proper shipping name	Nitrocellulose membrane filters
Description	UN3270, Nitrocellulose membrane filters, 4.1, II
Transport hazard class(es)	4.1
Packing group	II
Special Provisions	A57, A73, A122
ERG Code	3L

RID

UN number	UN3270
UN proper shipping name	Nitrocellulose membrane filters
Description	UN3270, NITROCELLULOSE MEMBRANE FILTERS, 4.1, II
Transport hazard class(es)	4.1
Labels	4.1
Packing group	II
Classification code	F1
Special Provisions	237, 286

ADR

UN number or ID number	3270
UN proper shipping name	Nitrocellulose membrane filters
Description	3270, NITROCELLULOSE MEMBRANE FILTERS, 4.1, II
Transport hazard class(es)	4.1
Labels	4.1
Packing group	II
Classification code	F1
Special Provisions	237, 286

ADN

UN number	UN3270
UN proper shipping name	Nitrocellulose membrane filters
Description	UN3270, NITROCELLULOSE MEMBRANE FILTERS, 4.1, II
Transport hazard class(es)	4.1
Hazard label(s)	4.1
Packing group	II
Classification code	F1
Special Provisions	237, 286
Limited quantity (LQ)	1 kg
Equipment Requirements	PP

Special precautions for user

Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****International Regulations**

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

Contact supplier for inventory compliance status

16. OTHER INFORMATION**Prepared By**

Bio-Rad Laboratories, Environmental Health and Safety

Revision date

28-Jan-2022

Revision Note

*** Indicates this information has changed since the previous revision.

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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

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