

SAFETY DATA SHEET



VIVID™ LATERAL FLOW NITROCELLULOSE MEMBRANE (LFNC)

Section 1. Identification

GHS product identifier : VIVID™ LATERAL FLOW NITROCELLULOSE MEMBRANE (LFNC)
Product code : See Appendix 1 for part code details
Other means of identification : Not available.
Product type : Solid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Vivid LFNC membrane is intended for use as a diagnostic membrane. Applications include lateral flow assays and other Point Of Care Testing. The membrane is for exclusive use by professionals.

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 24 hours/day, 7 days/week

Country of Origin: : Made in India

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE SOLIDS - Category 1

This product is considered to be a manufactured article in the country for which this Safety Data Sheet is written. Only the information required by the country's enforced GHS version are shown in this SDS.

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H228 - Flammable solid.

Precautionary statements

Prevention : P280 - Wear protective gloves. Wear eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response : See Section 8.

Section 2. Hazards identification

Storage	: See Section 7.
Disposal	: See Section 13.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Article
Other means of identification	: Not available.

CAS number/other identifiers

CAS number : Not applicable.

The below ingredients are listed for information only, since they are not required to be listed under GHS requirement.

Polyester, 25038-59-9 (84%)

Cellulose nitrate (<12% Nitrogen), 9004-70-0 (16%)

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Eye injury is unlikely, but could result from physical impact. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Inhalation is not considered a likely route of exposure for the membrane product as supplied by Pall.
Skin contact	: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
Ingestion	: The material is not intended for ingestion and therefore is not expected to present an ingestion hazard in the form and quantities present in a workplace setting. However if ingestion occurs, seek medical attention.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

Section 4. First aid measures

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Water.
- Unsuitable extinguishing media** : Dry powder, CO₂ or alcohol-resistant foam.

Specific hazards arising from the chemical : Dangerous fire risk when dry. Burns or explodes when heated to decomposition.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No special measures are required in respect to the membrane in the unused condition as supplied.
- For emergency responders** : No special measures are required in respect to the membrane in the unused condition as supplied.

Environmental precautions : Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Spill** : Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on personal protective equipment appropriate for the work area. Always wear gloves when handling the membrane to protect from contamination. Vivid LFNC membranes are for professional use only.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should follow standard workplace hygiene before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : VIVID LFNC membranes are supplied dry, without the presence of any preserving fluid. Store in a cool, clean environment. Handle with care to avoid damage or abrading.

- Store in original sealed Aluminium foil packing.
- Storage area should be clean and free of dust.
- Temperature should be kept between 10-25°C.
- Humidity should be between 40% to 80%.
- Do not expose to direct sunlight or other radiation or direct weather conditions.

Ensure careful handling to avoid physical damage. Ensure shipping bag and packaging are intact prior to use. Plastics can be damaged if roughly handled – particularly at sub-zero temperatures. Thermal shock by quickly raising the temperatures from sub-zero should be avoided.

Pall recommends a visual inspection prior to use. Do not use if the product or packaging is damaged (please contact Pall for further advice).

See Section 10 for incompatible materials before handling or use. Avoid all possible sources of ignition (spark or flame).

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

None.

Canada

Occupational exposure limits

None.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

- Hygiene measures** : No special measures required. Good hygiene practice in line with local working environment requirements and medical guidelines should be followed.
- Eye/face protection** : Not required.
- Skin protection**

Section 8. Exposure controls/personal protection

- Hand protection** : Disposable gloves are required to ensure diagnostic membrane remains clean during installation.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved.
- Other skin protection** : Additional skin protection measures should be selected based on the task being performed and the risks involved.
- Respiratory protection** : There are no special ventilation requirements for the article in the unused condition as supplied.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Membrane.]
- Color** : White.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : Not available.
- Solubility** : Not soluble in water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.
- Flow time (ISO 2431)** : Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable under the recommended conditions of use and storage (see Section 7).
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).

Section 10. Stability and reactivity

- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

There is no data available.

Irritation/Corrosion

There is no data available.

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

- Information on the likely routes of exposure** : Dermal contact. Eye contact.

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

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

Section 11. Toxicological information

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.





Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care

Section 13. Disposal considerations

should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	UN3270	UN3270	UN3270	UN3270
UN proper shipping name	Nitrocellulose membrane filters, [with not more than 12.6% nitrogen, by dry mass]	Nitrocellulose membrane filters, [with not more than 12.6% nitrogen, by dry mass]	Nitrocellulose membrane filters, [with not more than 12.6% nitrogen, by dry mass]	Nitrocellulose membrane filters, [with not more than 12.6% nitrogen, by dry mass]
Transport hazard class(es)	4.1 	4.1 	4.1 	4.1 
Packing group	II	II	II	II
Environmental hazards	No.	No.	No.	No.

AERG : 133

Additional information

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.20-2.22 (Class 4).

Special precautions for user : **Transport within user's premises:** always transport in sealed original packaging. Ensure that persons transporting the product know what to do in the event of an accident.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b):** All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

No products were found.

SARA 304 RQ : Not applicable.

Section 15. Regulatory information

SARA 311/312

Classification : FLAMMABLE SOLIDS - Category 1

SARA 313

There is no data available.

State regulations

Massachusetts : The following components are listed: Cellulose nitrate

New York : None of the components are listed.

New Jersey : The following components are listed: Cellulose nitrate

Pennsylvania : The following components are listed: Cellulose nitrate

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

This product is considered to be a manufactured article in the country for which this Safety Data Sheet is written. Only the information required by the country's enforced GHS version are shown in this SDS.

Canadian lists

Canada inventory (DSL NDSL) : All components are listed or exempted.

Canadian NPRI : The following components are listed: Cellulose nitrate

CEPA Toxic substances : None of the components are listed.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
FLAMMABLE SOLIDS - Category 1	Expert judgment

History

Date of issue mm/dd/yyyy : 06/30/2019

Date of previous issue : Not applicable

Version : 1

Prepared by : KMK Regulatory Services Inc.

Key to abbreviations

: ATE = Acute Toxicity Estimate
 : BCF = Bioconcentration Factor
 : GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 : IATA = International Air Transport Association
 : IBC = Intermediate Bulk Container
 : IMDG = International Maritime Dangerous Goods
 : LogPow = logarithm of the octanol/water partition coefficient
 : MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 : UN = United Nations

Notice to reader

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