

SECTION 1 – Product Identification

This 'Product Safety Data Information' Sheet covers Multi-well AcroPrep plates with Omega and Mustang membranes

Example Product name(s): AcroPrep Advance 96-well filter Plate, AcroPrep 24-well filter plate, AcroPrep 384-well filter plate

Example Part Number(s): See Appendix 1

The articles detailed above are intended for use in Laboratory analytical applications, by professional users. They are not a Medical Device.

For further information on Pall products, please visit Pall at <https://www.pall.com/en/about-pall.html>

SECTION 2 - Hazards Identification

Product definition: Article.

These finished articles are not classified as hazardous according to REACH Regulation 1907/2006, or European CLP/GHS Regulation 1272/2008.

GHS Signal word: Not applicable

Hazard statements: Not applicable

Special packaging requirements: Not applicable

SECTION 3 - Materials of Construction

3.1 The filters detailed in Section 1 are comprised of the following materials:

Material Name	CAS Number	Percentage in Composition
Polypropylene	9003-07-0	75 – 95
Polystyrene	9003-53-6	5 - 25
Modified Polyethersulfone (PES)	Pall proprietary	0.1 – 1.0

These products not known to contain BADGE, NOGE, or BFDGE.

Trace additives will not be present in the plastic components.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

Date: 02 September 2021

Data Sheet Number: GPS-00232 / GPS-00236

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the article.

There are no current SVHC substances known to be present in the finished articles above 0.1%.

There are no current ROHS2 Directive (2011/65/EU) and amendment (2015/863) substances of concern (including Lead, Cadmium, Mercury, Hexavalent Chromium, Polybrominated biphenyl (PBB), Polybrominated diphenyl ether (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Benzyl Butyl Phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)) known to be present in the materials employed in excess of the limits laid down, based on information from our suppliers and knowledge of substances used within Pall the manufacturing facility.

Pall filters do not employ natural rubber latex, or latex derivatives in their construction.

These products (see appendix 1) do not contain animal materials (i.e. animal parts, tissues, or body fluids). However, to assist our customers in performing a TSE/BSE risk assessment, we are pleased to provide the following information:

Pall filters for healthcare and laboratory applications may utilise components which are fabricated from plastic resins containing animal-derived additives at trace levels such as tallow-derived substances. Please be advised that tallow-derived additives are not considered specified BSE risk materials according to the current revision of the U.S. Code of Federal Regulations, Title 21 of part 189.5. Furthermore, the CPMP's *Note for guidance on minimising the risk of transmitting animal spongiform encephalopathies via human and veterinary medicinal products* (EMA410/01 rev 3) gives specific consideration to tallow derivatives and state they are unlikely to be infectious due to the rigorous processing steps used during their manufacture (an example of which is transesterification, or hydrolysis, at not less than 200°C under pressure for not less than 20 minutes).



The State of California requires 'clear and reasonable warnings' in respect of amounts of specific chemicals in the consumer products they purchase, in homes or workplaces or that are released into the environment. The aim of the warnings is to protect against chemicals known by the State of California to cause cancer, birth defects or reproductive harm. The list of substances of concern, form, and/or the concentration present above which notification for each substance is required (or 'safe harbor level') being that published by the State and known as the California Proposition-65 list.

Pall cannot at this time confirm that the residual level of the substances listed below would result in the indirect exposure of an individual to levels above their Cal Prop-65 threshold exposure limit, due to the wide range of migration scenarios that could be encountered in their use. However due to design and construction of these products, inhalation or ingestion of these articles are considered unlikely exposure scenarios for Pall AcroPrep Laboratory products. Also, as gloves are also recommended to be used when handling Pall AcroPrep Laboratory products to maintain cleanliness of the product, skin contact is also considered an unlikely exposure scenario.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

PRODUCT SAFETY DATA INFORMATION

Date: 02 September 2021

Data Sheet Number: GPS-00232 / GPS-00236

Pall will continue to monitor updates to California Proposition-65. Should you have any questions related to the information provided by Pall please do not hesitate to contact your local Pall Customer Services department.

These articles, placed on the market in the State of California, are not intended for 'consumer' sale and are for professional use only, and as the result of use will be expected to be disposed of as 'hazardous waste' within an appropriate waste stream reflecting the contaminant present as the result of use. These articles are supplied in sealed bags and boxed. Hence, any anticipated, direct contact with the materials of construction of those items is expected to be through 'occupational exposure', which does not require mandatory labelling of all articles.

These articles may contain trace residual levels of the following substances, but Pall does not test for them. Those substances are listed below:

Substance	CAS#
Styrene	100-42-5
Ethylbenzene	100-41-4
Cumene/isopropylbenzene	98-82-8

For more information go to www.P65Warnings.ca.gov

SECTION 4 - First Aid Measures

4.1 First aid measures

Always address any contaminants present on the filter as the result of use.

Eye Contact:	Eye injury could result from physical impact. Get medical attention immediately.
Inhalation:	Inhalation is not considered a likely route of exposure for the filter product as supplied by Pall.
Skin Contact:	Wash with soap and water. If irritation persists, get medical attention.
Ingestion:	This material is not intended for ingestion and 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.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

4.2 Key symptoms and effects

No known significant effects or critical hazards related to the materials of construction of the filter as supplied.

SECTION 5 - Fire Fighting Measures**5.1 Extinguishing media**

Select an extinguish medium suitable for surrounding / working environment.

For filter alone use dry chemical, CO₂, water spray (fog) or foam.

5.2 Specific Hazards

Hazardous thermal decomposition products: CO, CO₂, Acrid Smoke, SO_x, benzenesulfonic acid, 2(or4) methyl- phenol,

Irritation to eyes - suitable PPE and breathing apparatus precautions should be taken related to this risk in the event of fire.

5.3 Advice to Fire Fighters

Special precaution required. Fire-fighters should wear appropriate protective equipment, including self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6 - Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures**

Gloves to be worn while handling

For used filters always address any contaminants present on the filter as the result of use.

6.2 Environmental precautions

For unused filter modules, place in designated waste container appropriate to the materials of construction listed in Section 3 and dispose of in accordance with local regulations via a licenced waste disposal contractor.

For used filter modules, using clear-up, containment and appropriate PPE measures related to the product being filtered and the materials of construction detailed in Section 3.

6.3 Spillage containment and cleaning up

Use suitable equipment to collect the filter material and place in a designated, labelled waste container.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

Care should be taken to consider the nature of any contamination on the filter as the result of use and suitable PPE employed for handling waste.

Dispose of waste via a licensed waste disposal contractor.

SECTION 7 – Handling and Storage

7.1 Handling

Gloves to be worn while handling

Put on appropriate personal protective equipment for the working environment (See Section 8). Consult details of product being filtered for specific advice. Avoid activities that can damage the filter.

Follow good hygiene practices. Eating, drinking and smoking are generally prohibited in areas where this product is handled, stored or processed – exceptions are made on the guidance of local medical advice. Staff must follow standard work-place hygiene before eating, drinking or smoking after using this product. Wear gloves to prevent contamination of the filter cartridge and maintain cleanliness of the unused filter.

7.2 Storage

In the received condition, special protective equipment is not needed during handling and normal use of these filters. However, gloves are recommended to prevent contamination of the filter cartridge and maintain cleanliness. Handling of used filters must take into account the nature of potential contaminants.

The article is supplied dry, without the presence of any preserving fluid.

Store in a cool, clean environment.

Handle with care to avoid damage or abrading.

Store at temperatures between 0°C and 30°C, in dry conditions. For conditions outside of these limits consult Pall for specific recommendations.

Do not expose to direct sunlight or other radiation or direct weather conditions.

Store in original shipping bag or boxing.

Ensure careful handling to avoid physical damage. Ensure shipping bag and seals 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).

Please also consult the Pall instructions for use information on the product prior to use.

SECTION 8 - Exposure Controls/Personal Protection**8.1 Control parameters**

Occupational Exposure limits: None required

Recommended monitoring procedures: None required

8.2 Exposure controls

There are no special ventilation requirements for the article as supplied in the new and unused condition.

Hygiene Measures: No special measures required. Good hygiene practice in line with local working environmental requirements and medical guidelines.

Hand protection: Disposable gloves are recommended to ensure filter remains clean during use.

Environmental Exposure Controls: Not normally required for the filter itself as supplied

After the filter has been used additional exposure controls care should be taken in line with the nature of any contaminant on the filter as a result of its use.

SECTION 9 - Physical and Chemical Properties

Appearance: Disposable multi-well filter plates

Physical state: Solid

Colour: Colourless with white membrane

Solubility: Insoluble in water

Auto-ignition temperature: Polypropylene typically > 343.3 °C (650 °F)

Polystyrene typically > 427 °C (800.6 °F)

Modified Polyethersulfone typically > 550 °C (1022 °F)

Sensitive to shock: Mechanical / thermal shock can result in damage to the filter

SECTION 10 - Stability and Reactivity

Reactivity: The filter is stable under the recommended conditions of use and storage.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

Chemical Stability:	The filter is stable under recommended conditions of use and storage.
Hazardous Polymerisation:	Polymerisation will not occur under recommended conditions of use and storage.
Other hazardous reactions:	Consult details of product being filtered for specific advice. Under normal conditions of storage and use, no hazardous reactions will occur.
Conditions to Avoid:	Avoid conditions that soften, swell or adversely affect the filter or its materials of construction. Do not allow fluids to freeze on the filter.
Incompatible Materials:	Strong Acids, Strong Alkalis, Strong Oxidising Agents. Gasoline, aldehydes, ketone
Decomposition Products:	Under recommended conditions of use or storage, no hazardous decomposition products will be produced.

SECTION 11 - Toxicological Information

The information in this section contains generic advice and guidance in respect of the unused filter as supplied. Consult SDS details of the product being filtered for specific advice and recommendations.

11.1 Acute Toxicity

Based on typical information for the material type named, this information has not been determined specifically for Pall Medical filters:

Material Name	Result	Species	Dose
Polystyrene	LD50 Oral	Rat	> 2000 mg/kg
Polystyrene	LD50 Dermal	Rabbit	> 2000 mg/kg

Irritation/Corrosion/Sensitisation: No known concern to unused filter as supplied

Mutagenicity /Carcinogenicity /Reproductive Toxicity /Teratogenicity: No known concern for the materials of construction of the filter as supplied (new and unused). See Section 3 for carcinogenic concerns as determined by California Proposition-65

Aspiration Hazard: Not applicable for un-used filter.

Potential acute health effects: No known significant effects or critical hazards for the unused filter as supplied.

11.2 Chronic health effects

No known significant effects or critical hazards for the unused filter as supplied.

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

Carcinogenicity: See Section 3 for carcinogenic concerns as determined by California Proposition-65

SECTION 12 - Ecological Information

Pall filters are not expected to degrade in contact with soil or water under ambient conditions.

SECTION 13 - Disposal Information

The information in this section contains generic advice and guidance.

Product

Methods of disposal:

Filter plates (plastic and welded membrane) must not be separated for disposal and recycling.

Unused as supplied filters: Disposal/handling of the un-used filters should be in-line with national legislation and local regulatory requirements for the materials present. Unused filter cartridges may be used as landfill.

Hazardous Waste: To the best of our knowledge, this product if unused is not regarded as hazardous waste as defined by the EU Directive 91/689/EEC and amendments.

Used filters should be disposed of in line with the nature of the contaminants on the filters as a result of use. Therefore, used filters may be classified as hazardous – e.g. biopharmaceutical waste.

Packaging

Bagging: Plastic (Laminated nylon and polyethylene)

Box: Cardboard

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled where suitable arrangements and facilities exist. Incineration or land-fill should only be considered where re-cycling is not feasible.

SECTION 14 - Transport Information

The clean and un-used filter, supplied in its original packaging, is not classified as dangerous goods under ADR, RID, IMDG or IATA regulations.

Date of issue: 02 September 2021

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

Version: 1

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above Pall Corporation, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any materials is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Pall, AcroPrep and Omega are a trademark of the Pall Corporation

® indicates a trademark registered in the USA

© Pall Corporation, 2021.

APPENDIX 1

97049, 97050, 97051, 97052, 97053, 97054, 97055, 97056, 97057, 97058, 97059, 97060, 8033, 8034, 8035, 8036, 5076, 5078, 5080, 5077, 5079, 5081, 8071, 8072 (including sample packs using part number with S - prefix)

Pall Corporation provides the information contained herein in good faith and states that it represents the best information currently available. However, no warranties or representations are expressed or implied and Pall Corporation assumes no liabilities resulting from its use. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall Pall Corporation be responsible for losses or damages resulting from the use or reliance on this information.

Page 9 of 9