Material Safety Data Sheet

MSDS reference: Brand portfolio-G-S-D-C-P-V
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1. Identification of Substance & Company Identification

Product: *Grade M1 (0.3 micron), M01 (0.01 micron), M5 (3 micron), AC (Activated Carbon) Filter Elements for fitment into the Brand Portfolio range of compressed air Filter Housings.

Product Numbers: Size 1-18* (*denotes grade as notated above)

Substance Identification: Cartridge style Filter Element comprising of glass microfibre filtration media or activated carbon with stainless steel supports and polyester felt outer drainage layer (not applicable to V grade). The ends of the filter cartridge are injection moulded glass filled nylon attached with polyurethane resin. Nitrile rubber seals located on the endcap(s).

This product, although classified as hazardous, does not present any hazard for final user in the form in which it is placed on the market. In case of abrasive processes (e.g. cutting, grinding) and mechanical transport processes, breaking-up of the structure of the media and release of inorganic fibre dusts is possible and the hazardous properties of the product become effective.

Company: nano-purification solutions

5509 David Cox Road
Charlotte, NC 28269
USA

Contact details: Tel: +1 704 897 2182

e-mail: support@nano-purification.com
web: www.nano-purification.com

2. Composition

Grade M1:

Component	Material of Construction	CAS Number	Classification
Filtration media	Glass Microfibre Paper	Not allocated	H351
Gauze	Polypropylene	Not allocated	Non-regulated
Support Cylinders	Stainless Steel	Not allocated	Non-Regulated
Drainage Layer	Polyester Needle Felt	Not allocated	Non-Regulated
Endcaps	Glass Filled Nylon	32131-17-8	Non-Regulated
Endcap Adhesive	Polyurethane Resin	Not allocated	Non-Regulated
O Ring Seal(s)	NBR Nitrile Rubber	9003-18-3	Non-Regulated

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Grade M01:

Component	Material of Construction	CAS Number	Classification
Filtration media	Glass Microfibre Paper	Not allocated	H351
Gauze	Polypropylene	Not allocated	Non-regulated
Support Cylinders	Stainless Steel	Not allocated	Non-Regulated
Drainage Layer	Polyester Needle Felt	Not allocated	Non-Regulated
Endcaps	Glass Filled Nylon	32131-17-8	Non-Regulated
Endcap Adhesive	Polyurethane Resin	Not allocated	Non-Regulated
O Ring Seal(s)	NBR Nitrile Rubber	9003-18-3	Non-Regulated

Grade M5:

Component	Material of Construction	CAS Number	Classification
Filtration media	Glass Microfibre Paper	926-771-1 25038-59-9	H351
Gauze	Polypropylene	Not allocated	Non-regulated
Support Cylinders	Stainless Steel	Not allocated	Non-Regulated
Drainage Layer	Polyester Needle Felt	Not allocated	Non-Regulated
Endcaps	Glass Filled Nylon	32131-17-8	Non-Regulated
Endcap Adhesive	Polyurethane Resin	Not allocated	Non-Regulated
O Ring Seal(s)	NBR Nitrile Rubber	9003-18-3	Non-Regulated

Grade AC (Activated Carbon):

AC Media: Component	Material of Construction	CAS Number	Classification
Activated Carbon	Activated Carbon	7440-44-0	Non-Regulated
Filtration Media	Glass Microfibre Paper	Not allocated	H351
Support Cylinders	Stainless Steel	Not allocated	Non-Regulated
Endcaps	Glass Filled Nylon	32131-17-8	Non-Regulated
Endcap Adhesive	Polyurethane Resin	Not allocated	Non-Regulated
O Ring Seal(s)	NBR Nitrile Rubber	9003-18-3	Non-Regulated

3. Hazard Identification

Emergency Overview

Appearance: Cylindrical cartridge filter element with white polyester felt externally and injection moulded endcaps on each end (not applicable to AC grade).

Major Health Hazards: Under normal operating temperature and pressure conditions, these devices do not present a health hazard.

Physical Hazards: Under normal operating temperature and pressure conditions, these devices do not present a physical hazard.

4. First Aid Measures

Glass Fibre Media:

No first aid measures regarding skin or eye contact and ingestion are applicable to these devices in the unused and undamaged condition.

Activated Carbon Media:

If release dust is inhaled, ensure supply of fresh air. If contact with skin, wash off with soap and water. In case of contact of dust with the eyes, rinse thoroughly with plenty of water. Emergency eyewash should be available at the handling area.

5. Fire Fighting Measures

Glass Fibre Media:

General: The plastic components of these devices will melt and/or decompose under fire conditions. Once ignited, the plastic materials will add to the intensity of the fire and can be expected to emit hazardous and toxic gases, vapours, fumes and smoke particles.

Extinguishing Media: Dry powder, Foam extinguishers.

Activated Carbon Media:

Protective equipment for fire fighters: Breathing apparatus

Special exposure hazards: CO, CO2, NOx

6. Accidental Release Measures

Due to the integral nature of these devices, they do not release materials to the environment when used within recommended operating temperature and pressure conditions. Liquids and/or contaminants present in the air being processed through these devices may be released to the surroundings should the device fail due to temperature and pressure conditions outside of the recommended operating ranges. These releases should be dealt with according to the nature of the contaminants present in the processed gas stream.

7. Handling and Storage

Store in a cool dry location out of direct sunlight, and away from sources of heat and incompatible chemicals.

8. Exposure Controls

Under normal operating conditions, mechanical ventilation, personal protective equipment and respiratory protection are not required. The nature of the contamination in the gas stream being processed will determine the personal protection required during maintenance operations.

9. Physical and Chemical Properties

Grade Applicable	Component	Material of Construction	Description	Odour	Melting Point (˚C)	Solubility in water	Flash Point (˚C)	Lower Explosive Limit	Auto Ignition Temp (˚C)
All	Filtration media	Glass Microfibre Paper	Solid	None	>704	Negligible	No Data	No Data	No Data
AC	Activated Carbon	Activated Carbon	Solid	None	N/A	N/A	N/A	N/A	N/A
All	Support Cylinders	Stainless Steel	Solid	None	Approx 1200	Insoluble	N/A	N/A	N/A
All	Drainage Layer	Polyester Needle Felt	Solid	None	257	Insoluble	No Data	No Data	No Data
All	Endcaps	Glass Filled Nylon	Solid	None	220	Insoluble	>400	No Data	No Data
All	Endcap Adhesive	Polyurethane Resin	Solid	None	250	Insoluble	195	No Data	No Data
All	O Ring Seal(s)	NBR Nitrile Rubber	Solid	Mild Aromatic Odour	No Data	Insoluble	No Data	No Data	No Data

10. Stability and Reactivity

Component	Materials of construction	Stability	Reaction with Water	Other Known hazards	Avoid contact with:				
					Water	Acids	Bases	Oxidisers	Combustibles
Filtration Media	Glass Microfibre paper	Stable at normal temperature and pressure	None	Incompatible with hydrofluoric acid and concentrate sodium hydroxide	N	Y	Y	N	N
Filtration media	Activated Carbon Cloth	Stable at normal temperature and pressure	None	Avoid humidity and temperature >100$_o$C	Y	N	N	Y	N
Support Cylinders	Stainless Steel	Stable at normal temperature and pressure	None	None	N	N	N	N	N
Drainage Layer	Polyester Needle Felt	Stable at normal temperature and pressure	None	Degraded by strong alkalis	N	N	Y	N	N
Endcaps	Glass Filled Nylon	Stable at normal temperature and pressure	None	Avoid strong oxidizing agents, acids, and bases	N	Y	Y	Y	N
Endcap Adhesive	Polyurethane Resin	Stable at normal temperature and pressure	None	None	N	N	N	N	N
O Ring Seal(s)	NBR Nitrile Rubber	Stable in normal use, avoid exposure to Ozone, weather, and atmospheric aging	None	Not compatible with high aromatic content fuels	N	Y	N	Y	Y

11. Toxicological Information

Glass Fibre Media:

This product has not been tested as a whole entity, however information regarding the glass fibre in its raw form used to produce the filtration media is provided below.

Acute: Glass fibre is an irritant of the upper respiratory tract, skin and eyes.

Chronic: Animal Studies

Interim results from a chronic animal inhalation study have shown lung fibrosis and mesothelioma in animals exposed to special purpose glass fibre. In other glass fibre studies animals exposed by artificial means (e.g. implantation and injection) developed tumours.

Human Studies

In a morbidity study of glass fibre manufacturing workers, published in 1993, the authors concluded that there were no signs of effects from exposure.

A 1990 update of a U.S. mortality study reported a small but statistically significant excess in respiratory cancer compared to local rates. There was no relationship, however with duration of employment or estimated cumulative exposure.

Activated Carbon Media: N/A.

12. Ecological Information

Glass Fibre Media:

Due to the inert nature of the materials used in these devices, it is expected that they will have very limited biodegradability in water or soils.

Activated Carbon Media: N/A.

13. Disposal Information

Glass Fibre Media:

None of the components of these devices are listed as hazardous wastes. The disposal regulations regarding chemically, or biologically contaminated filter units will vary with jurisdiction. Moreover, residuals from the air being processed may be hazardous wastes and necessitate handling and disposing of the used cartridges ad hazardous waste. The user should consult with their facility's environmental representative and/or their local authority having jurisdiction. Walker Filtration will assist the user with technical information as needed to determine disposal options. Waste devices should be disposed of in a manner consistent with federal, state and local legislation and regulations.

Activated Carbon Media:

All wastes must be handed in accordance with local, state and federal regulations.

14. Transport Information

Glass Fibre Media:

The transport of these devices is not regulated by USDOT, ICAO/IATA, ADR, IMO or HSE (UK) as hazardous material or dangerous goods. However, once used, these devices may contain residual materials that are regulated materials. The user should determine the applicability of current regulations before shipping or transporting used devices.

Activated Carbon Media:

No dangerous goods in accordance with the regulations. The carbon present in this product is prepared by a steam activated process. Testing using method in 49CFR173 appendix E has shown the product does not meet the definition of hazard Class 4.2.

15. Regulatory Information

European Union:	European labelling in accordance with applicable EC Directives: Hazard symbols: N/A Risk Phrases: N/A Safety Phrases: N/A

16. Other Information

©2024 Air & Gas Solutions LLC All rights reserved. The above information is believed to be current and has been gathered from standard reference manuals and/or supplier test data and is believed to be current and accurate; however, nano-purificaiton solutions makes no warranty with respect to such information and assumes no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information supplied.