

GREMARCO

SAFETY DATA SHEET

Prepared in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and GHS Revision 7

Article status and voluntary provision: This product is a bound, non-friable fabric in which all components are fixed within a stable matrix. Under normal conditions of use it does not release more than trace quantities of any hazardous chemical and does not meet the hazard criteria of 29 CFR 1910.1200. Gremarco, LLC considers this product to be an article as defined in 29 CFR 1910.1200(c) and therefore exempt from Safety Data Sheet requirements. This Safety Data Sheet is provided voluntarily, in GHS format, for customer information. See Section 16 regarding hazards that may arise from adsorbed contaminants after use.

1. Identification

Product identifier	Activated Alumina Impregnated Filtration Media — AA-Series
Other means of identification	Alumina fabric; activated alumina media; adsorbent fabric; desiccant/adsorbent filtration media
Recommended use	Adsorbent filtration media containing activated alumina for the removal of contaminants from air, gas, and liquid (water) streams. Supplied to OEM filter manufacturers and converters for incorporation into finished filter assemblies. Industrial and commercial use only.
Restrictions on use	Not for use in potable water treatment. Not for consumer sale except as incorporated into a finished filter product. It is the customer's responsibility to determine suitability for its intended use, and to test and certify any finished product incorporating this media.
Manufacturer	Gremarco, LLC 131 East Main Street West Brookfield, MA 01585 United States Telephone: 1.508.867.5244
Emergency telephone	1.508.867.5244

2. Hazard(s) Identification

Classification of the substance or mixture

Not classified as hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, as supplied.

Label elements

Hazard pictogram	None
Signal word	None
Hazard statements	None
Precautionary statements	None required. See Section 7 for recommended handling practices.

Hazards not otherwise classified (HNOC)

Alumina dust and fabric fines generated during cutting, slitting, die-cutting, or other converting operations may cause mechanical irritation of the eyes, skin, and upper respiratory tract. Activated alumina is a nuisance particulate with an established permissible exposure limit; see Section 8.

Activated alumina (aluminium oxide) is not combustible and does not present a dust explosion hazard. The fabric contains organic components (polyester substrate and acrylic/other binders) that are combustible; accumulated fines from those organic components could contribute to a combustible-dust condition, though the fines are predominantly inert alumina. Practice routine housekeeping so that dust does not accumulate. Refer to NFPA 652 where organic fines are generated.

Activated alumina is a strong desiccant and will adsorb moisture from the surrounding air. It does not deplete oxygen the way activated carbon does.

Unknown acute toxicity

A minor fraction of the mixture consists of coating components for which complete numerical acute toxicity data are not available (the acrylic binder and certain coating additives). Each such component is classified by its manufacturer as non-hazardous or as a mild irritant only. The mixture as a whole is not classified for acute toxicity.

3. Composition / Information on Ingredients

Mixture. Composition of the finished fabric:

Component (chemical family)	Concentration (%)	GHS classification
Polyester nonwoven substrate	33–50	Not classified
Activated alumina (adsorbent)	39–52	Not classified
Acrylic polymer binder	8–11	Not classified
Acrylate thickener	1–2	Data pending — see note
Anionic copolymer dispersant	1–1.5	Eye Irrit. 2B
Defoamer	0.5–1	Eye Irrit. 2A

The concentrations above are the components' share of the finished fabric weight. The coating is applied to a polyester nonwoven substrate that constitutes 33–50% of the finished weight; the remaining components are the dried coating. The specific chemical identities, CAS numbers, and exact concentrations are withheld as confidential business information in accordance with 29 CFR 1910.1200(i); the components are described above by chemical family, concentration range, and hazard classification. Although the dispersant and the defoamer each carry an eye-irritation classification as supplied, neither is present in the finished, cured fabric at a concentration that requires classification of the mixture. Occupational exposure limits, where established, are listed in Section 8.

4. First-Aid Measures

General	No adverse effects are anticipated from normal handling of the product as supplied. The measures below address exposure to dust or fines generated during converting.
Inhalation	Move the person to fresh air and keep them comfortable for breathing. If irritation persists, get medical attention.
Skin contact	Wash with soap and water. The product is not expected to irritate the skin. If irritation develops or persists, get medical attention.
Eye contact	Do not rub the eyes. Rinse cautiously with water for several minutes, holding the eyelids open. Remove contact lenses if present and easy to do. If irritation persists, get medical attention.
Ingestion	Rinse the mouth with water. Do not induce vomiting. Get medical attention if the person feels unwell.
Most important symptoms and effects	Mechanical irritation of the eyes and upper respiratory tract from airborne dust. No other acute or delayed effects are known.
Note to physicians	Treat symptomatically. No specific antidote is known. The product is a bound, inert adsorbent fabric and is not systemically toxic.

5. Fire-Fighting Measures

Suitable extinguishing media	Water spray or fog, foam, dry chemical, or carbon dioxide, as appropriate to the surrounding fire.
Unsuitable extinguishing media	Avoid high-pressure, high-velocity water streams, which may disperse fines into the air.

Specific hazards	The activated alumina component is inert and non-combustible. The organic components of the fabric (polyester substrate and coating binders) will burn if exposed to sufficient heat and an ignition source. Combustion may liberate dense smoke and the decomposition products listed below.
Hazardous combustion products	Carbon monoxide, carbon dioxide, oxides of nitrogen, acrolein, trace formaldehyde, and other organic decomposition products of the polyester substrate and the coating binders. The activated alumina component is inert and non-combustible.
Protective equipment for fire-fighters	Wear full protective fire-fighting gear including a self-contained breathing apparatus operated in positive-pressure mode. Respiratory protection is essential. Approach from upwind. Fight from a protected location and avoid dispersing dust into the air.

6. Accidental Release Measures

Personal precautions	The product as supplied is a fabric and does not spill in the conventional sense. For releases of carbon fines: eliminate ignition sources, ensure adequate ventilation, and avoid generating airborne dust. Wear eye protection, gloves, and a dust mask where dust is being generated.
Environmental precautions	Prevent fines from entering drains, waterways, or soil. No significant environmental hazard is anticipated from the product as manufactured.
Methods for containment and cleanup	Collect rolls, sheets, or scrap mechanically. For fines, vacuum (a HEPA-filtered vacuum is preferred) or sweep gently after light misting with water to suppress dust. Do not dry sweep in a manner that aerosolizes fines. Do not use compressed air for cleaning. Place collected material in a suitable closed container for disposal in accordance with Section 13.
Reference to other sections	See Section 8 for personal protective equipment and Section 13 for disposal.

7. Handling and Storage

Precautions for safe handling	Handle rolls and sheets so as to minimize abrasion and dusting. Avoid rough handling. Where converting operations generate fines, use local exhaust ventilation and institute routine housekeeping so that dust does not accumulate on surfaces, ledges, or equipment. Keep away from ignition sources. Do not smoke in handling or storage areas. Ground and bond dust-handling equipment to control static discharge. Wash hands after handling. Do not eat, drink, or smoke in handling areas.
Conditions for safe storage	Store sealed in a cool, dry, well-ventilated area. Store in the original packaging. Keep away from incompatible materials (see below). Activated alumina is a strong desiccant and will adsorb moisture and vapors from the surrounding atmosphere, which reduces its remaining adsorptive capacity. Keep packaging sealed until use and protect from humidity.
Incompatible materials	Strong acids and strong bases (may attack the alumina). Strong oxidizing agents.

8. Exposure Controls / Personal Protection

Occupational exposure limits

Component	Source	Limit
Aluminium oxide, non-fibrous (1344-28-1)	OSHA PEL (29 CFR 1910.1000, Table Z-1)	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)
Aluminium oxide, as mineral dust (1344-28-1)	OSHA PEL (Table Z-3)	50 mppcf (total); 15 mppcf (respirable)
Other components (substrate, binder, thickener, dispersant, defoamer)	OSHA, ACGIH, NIOSH	None established

Engineering controls

None required for handling the product as supplied. Where cutting, slitting, or other converting operations generate airborne fines, provide local exhaust ventilation sufficient to keep exposures below the limits above. Dust collection equipment should be designed and protected in accordance with NFPA 652 and NFPA 654.

Individual protection measures

Eye/face protection	Safety glasses with side shields where dust is generated.
Skin/hand protection	Gloves are not required for normal handling. Cut-resistant or general-purpose work gloves are recommended for handling cut edges and for comfort.
Body protection	Normal work clothing.
Respiratory protection	Not required for normal handling. Where dust is generated and cannot be controlled by ventilation, use a NIOSH-approved N95 or better particulate respirator in accordance with a respiratory protection program meeting 29 CFR 1910.134.
General hygiene	Wash hands after handling. Do not eat, drink, or smoke in the work area.

9. Physical and Chemical Properties

Property	Value
Physical state	Solid — flexible fabric / nonwoven roll goods
Appearance	White to off-white fabric containing activated alumina fixed in a stable, inert matrix
Color	White to off-white
Odor	None to slight
Odor threshold	Not applicable
pH	Not applicable (solid article)
Melting point / freezing point	Activated alumina component ~2000 °C (3632 °F). Polyester substrate softens at approximately 250 °C (482 °F).
Initial boiling point and boiling range	Not applicable
Flash point	Not applicable (solid)
Evaporation rate	Not applicable
Flammability (solid, gas)	The activated alumina component is non-combustible (melting point ~2000 °C). The organic substrate and binders are combustible. The article does not meet the GHS criteria for a flammable solid.
Upper / lower flammability or explosive limits	Not applicable to the fabric as supplied. See Section 2 regarding combustible fines.
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	Not applicable (fabric)
Bulk density	Not determined (fabric). Activated alumina component ~3.4 g/cm ³ true density.
Solubility in water	Insoluble
Partition coefficient, n-octanol/water	Not applicable
Auto-ignition temperature	No data available for the finished fabric. The alumina component is non-combustible.
Decomposition temperature	No data available
Viscosity	Not applicable
Particle characteristics	Not applicable — supplied as bound fabric, not as a particulate. Fines may be generated during converting.

10. Stability and Reactivity

Reactivity	Not reactive under normal conditions of use and storage. Activated alumina is a stable, inert adsorbent.
Chemical stability	Stable under normal conditions of temperature and pressure.
Possibility of hazardous reactions	None anticipated under normal use.
Conditions to avoid	Ignition sources and open flame (organic components), excessive heat, generation and accumulation of airborne fines, exposure to moisture (the alumina will adsorb water and lose adsorptive capacity).
Incompatible materials	Strong acids and strong bases. Strong oxidizing agents.
Hazardous decomposition products	None under normal conditions of storage. On combustion of the organic components: carbon monoxide, carbon dioxide, oxides of nitrogen, and organic decomposition products including trace formaldehyde. The alumina component is inert.

11. Toxicological Information

Information on likely routes of exposure

Inhalation of dust and eye contact with dust are the only anticipated routes of exposure, and only where converting operations generate fines. Skin contact with the fabric presents no anticipated hazard. Ingestion is not a plausible route.

Symptoms and effects

Inhalation	Dust may cause mechanical irritation of the upper respiratory tract, with coughing.
Eye contact	Dust may cause mechanical irritation, with redness.
Skin contact	No irritant effect expected.
Ingestion	Not a plausible route of exposure. No data available.
Delayed and chronic effects	No data available for the mixture. No component is classified for carcinogenicity, germ cell mutagenicity, reproductive toxicity, respiratory or skin sensitization, or specific target organ toxicity. Two coating components carry an eye-irritation classification as supplied, but are bound within the cured fabric.

Numerical measures of toxicity

Component	Route / test	Result
Activated alumina	Oral LD50, rat	5,000 mg/kg
Activated alumina	Inhalation LC50/4 h, rat	> 0.888 mg/L
Anionic copolymer dispersant	Oral LD50, rat	> 13,280 mg/kg
2-butoxyethanol (111-76-2), trace	Oral LD50, rat	470 mg/kg
Acrylic binder, thickener, defoamer	—	No numerical acute toxicity data for the polymers. Classified non-hazardous or mild irritant by their manufacturers.
Mixture	Acute toxicity estimate	Not classified. Classification is based on the components; no data are available for the mixture itself.

Carcinogenicity

No component of this product is listed as a carcinogen by IARC, NTP, ACGIH, or OSHA.

12. Ecological Information

Ecotoxicity	No data available for the finished mixture. The product is a bound solid and is not expected to be bioavailable as manufactured.
--------------------	--

	The defoamer component is classified toxic/harmful to aquatic life (H401/H412) as supplied, but is present in the cured fabric at less than 1% and is bound within the matrix.
Persistence and degradability	Not readily biodegradable. Activated alumina is chemically inert and persistent.
Bioaccumulative potential	No data available. Not expected to bioaccumulate.
Mobility in soil	Not applicable — bound solid.
Other adverse effects	None known from the product as manufactured. Avoid release of coating fines to surface water.
PBT / vPvB assessment	Not applicable.

13. Disposal Considerations

Waste from the product as manufactured	The product as manufactured is not a hazardous waste under RCRA (40 CFR 261). Unused media and manufacturing scrap may generally be disposed of as ordinary industrial solid waste.
Waste from used product	Important — see Section 16. Once placed in service, activated alumina media adsorbs and concentrates whatever contaminants are present in the air, gas, or liquid stream it treats. Spent media may therefore be a regulated or hazardous waste even though the product as manufactured is not. The end user is responsible for characterizing spent media based on its service history.
Safe handling of waste	Spent media may contain adsorbed contaminants. Store spent media in closed containers pending disposal.
Methods of disposal	Dispose of in accordance with all applicable federal, state, and local regulations. Do not incinerate spent media without first characterizing the adsorbed contaminants.

14. Transport Information

Not regulated as a dangerous good by US DOT (49 CFR), IATA, or IMDG in the form supplied.

	DOT	IATA	IMDG
UN number	Not regulated	Not regulated	Not regulated
Proper shipping name	Not applicable	Not applicable	Not applicable
Transport hazard class	Not applicable	Not applicable	Not applicable
Packing group	Not applicable	Not applicable	Not applicable
Marine pollutant	No	No	No

Special precautions for the user: Keep away from ignition sources during transport. Protect from moisture.

Note: The activated alumina component is not self-heating and is not subject to the UN 1362 (activated carbon) self-heating entry.

Transport in bulk according to MARPOL Annex II and the IBC Code: not applicable.

15. Regulatory Information

United States — Federal

TSCA	All components are listed on the TSCA inventory or are exempt from listing. As an article, this product is exempt from TSCA reporting requirements under 40 CFR 704.5.
SARA Section 302	No component is listed as an extremely hazardous substance.
SARA Section 311/312	Acute health: No. Chronic health: No. Fire: No. Pressure: No. Reactivity: No.

SARA Section 313	No component is present at or above the de minimis reporting threshold.
CERCLA	No component is listed under 40 CFR 302.4.
OSHA	Not classified as hazardous under 29 CFR 1910.1200. Considered an article under 29 CFR 1910.1200(c).

United States — State

California Proposition 65	This product is not known to contain any chemical listed under California Proposition 65 at a level requiring a warning.
Massachusetts Right-to-Know	No component of this product is present above the applicable reporting threshold of the Massachusetts Substance List (105 CMR 670). The acrylic binder contains less than 0.1% formaldehyde, which appears on the list but is below its reporting threshold in the finished product.
Other state lists	No component of this product is listed on the California, Minnesota, New Jersey, or Pennsylvania right-to-know lists.

International

Canada (CEPA DSL)	All components are on the Domestic Substances List or are exempt.
Canada (WHMIS 2015)	Not classified as a hazardous product. Note that WHMIS 2015 includes a combustible dust hazard class that has no direct equivalent under the US Hazard Communication Standard; the product as supplied in bound fabric form does not fall within it.

16. Other Information

Important disclaimer regarding adsorbed contaminants

Activated alumina is a chemical adsorbent medium. In certain circumstances or specific end uses it may adsorb and concentrate a hazardous or regulated contaminant. Where this occurs, the end user is responsible for evaluating the hazards associated with the handling, transportation, and disposal of the filter media after use. These hazards do not exist in the product as manufactured and cannot be characterized by Gremarco, LLC, because they depend entirely on the service conditions selected by the end user.

Combustible dust

The UN GHS does not contain a hazard class for combustible dust; OSHA addresses it through the Hazard Communication Standard as a hazard not otherwise classified. This product as supplied is a bound fabric and does not present a combustible dust hazard. Fines generated during converting operations are a combustible particulate. Refer to NFPA 652 and NFPA 654.

Formaldehyde content

Two coating components can release trace formaldehyde: the self cross-linking acrylic binder contains less than 0.1% free formaldehyde as supplied, and the defoamer may release formaldehyde on oxidation, per the respective manufacturers' Safety Data Sheets. High-temperature curing during manufacture may release trace formaldehyde. Residual formaldehyde in the finished, cured fabric is present only at trace levels, well below the 0.1% concentration that would require classification or composition disclosure of the finished product. This information is provided in response to customer inquiries and does not constitute a hazard classification of the finished product.

Component data status

The acrylate thickener component (alkali-swellable emulsion) is listed pending receipt of the manufacturer's current Safety Data Sheet. Available product information indicates it is a water-based acrylic emulsion classified non-hazardous to mildly irritant; this Safety Data Sheet will be superseded if the manufacturer's data require any change to Sections 2, 3, 8, or 11.

Key to abbreviations

ACGIH — American Conference of Governmental Industrial Hygienists · CAS — Chemical Abstracts Service · CERCLA — Comprehensive Environmental Response, Compensation, and Liability Act · DOT — US Department of Transportation · GHS — Globally Harmonized System of Classification and Labelling of Chemicals · HCS — Hazard Communication Standard · HNOG — Hazards Not Otherwise Classified · IARC — International Agency for Research on Cancer · IATA — International Air Transport Association · IMDG — International Maritime Dangerous Goods · LC50 — Lethal concentration, 50 percent · LD50 — Lethal dose, 50 percent · NFPA — National Fire Protection Association · NIOSH — National Institute for Occupational Safety and Health · NTP — National Toxicology Program · OSHA — Occupational Safety and Health Administration · PEL — Permissible Exposure Limit · RCRA — Resource Conservation and Recovery

Act · SARA — Superfund Amendments and Reauthorization Act · TLV — Threshold Limit Value · TSCA — Toxic Substances Control Act · TWA — Time-Weighted Average

References

Classification and hazard data for this product are based on the current Safety Data Sheets of the activated alumina adsorbent and of the coating component suppliers, all held on file by Gremarco, LLC and available to regulatory authorities on request. One coating component (acrylate thickener) is pending receipt of the manufacturer's current Safety Data Sheet. General references: OSHA 29 CFR 1910.1200 and 29 CFR 1910.1000; NIOSH Pocket Guide to Chemical Hazards.

Revision information

Prepared by	Gremarco, LLC
Date of preparation	July 17, 2026
Version	1.0
Supersedes	New Safety Data Sheet — first issue for this product
Summary of changes	First issue. Activated Alumina (Series AA) impregnated filtration media, for air-, gas-, and liquid-phase use. Prepared in the 16-section GHS format consistent with the Gremarco activated carbon media Safety Data Sheets. The acrylate thickener component is listed with data pending (see Section 16).

The information in this Safety Data Sheet was prepared by Gremarco, LLC and is accurate to the best of our knowledge as of the date of issue. It is offered solely as guidance for the safe handling, use, processing, storage, transportation, and disposal of this product, and is not to be considered a warranty or quality specification. Final determination of the suitability of this product for any particular purpose is the sole responsibility of the user.

— End of Safety Data Sheet —