

Supplier Scouting Opportunity 2023-024

Item Information

Item to be scouted: Industrial Spraying and Heat Drying Provider

Days: 30

Item description: The company produces filtration sheets (a few microns to tens of micron thick) that can be used as filtration membrane or shielding material in water filtration, bioprocessing and gas and chemical separation. The company is looking for a company to spray and heat dry their product.

Technical Information

Supplier Information

Type of supplier being sought: Contract manufacturer

Reason for scouting submission: New product startup

Summary of technical specifications and performance requirements

Describe the manufacturing processes (elaborate to provide as much detail as possible): Polymer-free carbon nanotube (CNT) thin film sheets are to be sprayed with Chlorosulfonic acid (liquid) then dried under controlled conditions. To prepare for spraying, the raw CNT sheet will be placed on a smooth glass surface in a sealed container or fume hood that is protected from moisture. The glass surface then needs to be heated at <150 Deg C for 12 to 24 h. most of the Chlorosulfonic acid condensate will be recovered and can be reused in subsequent sprays. The processed sheet (densified carbon nanotube sheet) will be rinsed with water and dried in air. The glass container will be rinsed with water and the rinse will be neutralized with NaOH solution.

Provide dimensions / size / tolerances / performance specifications for the item: The 1m x 1m or 1m x 2m CNT sheet requires no special spraying techniques or film thickness specifications other than adhering to the MSDS.

List required materials needed to make the product, including materials of product components: Chlorosulfonic acid (ClSO₂OH) and compatible spraying equipment. Sodium Hydroxide solution (1N NaOH) for clean-up. Basic plastic bags and boxes for packaging and shipping

Are there applicable certification requirements?: No

Are there applicable regulations?: ClSO₃H reacts violently with water to yield sulfuric acid and hydrogen chloride, commonly seen as vapors fuming from the liquid. Precautions, such as proper ventilation and handling, associated with HCl should be observed.

Are there any other standards, requirements, etc.?: No

Business Information

Volume and pricing

Estimated potential business volume: Company plans to ramp up to 100,000 m² per year

Estimated target price / unit cost information (if unavailable explain): ~\$50 per sheet processed.

Delivery requirements

When is it needed by?: ~Six Months

Describe packaging requirements: Individually wrapped in plastic bags, boxed and palleted

Where will this item be shipped?: Wilmington, Delaware

Additional Information

Agree (click to read agreement): Yes