ITEM OPPORTUNITY SYNOPSIS

Scouting Number:	2024-167
Name of the item to be scouted:	Wax Emulsion Draw Lubricant with Natural Carnauba or Replacement Product
State item to be used in:	Massachusetts
Describe the Item:	
Please describe the item application/the end use of the item.	We are seeking a supplier to produce a wax emulsion draw lubricant with natural carnauba. This will be used for lubrication in deep drawn metal forming, primarily with aluminum, but also with copper, brass, some cold rolled steel, and stainless steel. Occasionally, we use more exotic alloys. We are also open to alternative products that meet the same application requirements.
Supplier Information:	
Type of Supplier Being Sought (select from the list below):	
Manufacturer	x
Contract Manufacturer	
Distributor	
Other (Please Specify)	
Reason for Scouting Submission (select from the list below)	
2nd Supplier	x
Price	
Re-Shore	
Past supplier no longer available	
New Product Startup	
BABA	
Other (Please Specify)	
Summary of Technical Specifications and Performance Requirements:	
Describe the manufacturing processes (elaborate to provide as much detail as possible)	Metal blanks of varying thicknesses are first cut to size. They are then run through a roll coater that applies the wax emulsion to the blanks in a liquid state. The wax is held in hot water-jacketed tanks heated to 152°F. The coating is thicker on the top of the blanks and thinner on the bottom. Next, the blanks are run through an oven. The first half of the oven is heated to about 170°F using a hot water heat exchanger, which helps drive off the Stoddard solvents in the emulsion. The second half of the oven is at ambient air temperature to partially dry the blanks. The blanks are not completely dry but are not wet either, achieving the perfect dryness that only an experienced operator can determine by touch. The wax needs to move under pressure without exposing bare metal. It must not be so dry that it cracks, nor so liquid that it runs off the blanks. After the oven, the blanks are formed with draw tooling. Unlike some competitors, we run a pinch in our tooling. For example, if the tool is designed for .063” material, we draw material that is .064” to .065” with tooling clearance between .059” to .062”. The carnauba particles are crucial as they provide a barrier coating between the tooling and the metal. Due to the pressure and friction, the wax melts at the point of contact and forming. This critical area of the tooling, about .125” to .250” in height, is known as the "Life" of the die. Once past this point, the wax resolidifies almost to its original state upon exiting the oven. After forming, the parts are trimmed to size, possibly machined or finished in some way, and hardware may be added. All parts are vapor degreased at some point, as this is the only effective method to remove the wax.

Provide dimensions / size / tolerances / performance specifications of the item	If it is an alternative, it must be compatible with the following metals: aluminum, copper, brass, some cold rolled steel, and some stainless steel. Whether it's an alternative supplier or product, it must also be able to produce enclosures using our current tooling and meet or exceed the quality of our current product. The metal being formed or drawn is usually much softer than the tools used, so we do not allow any scoring, scratches, or gouges. If a defect can be felt with a fingernail, it is considered a rejectable part. People often question why we discard seemingly good enclosures when they see our scrap bins. Maintaining high quality in our finished parts has been a cornerstone of our company for many years.
List required materials needed to make the product, including materials of product components, if applicable	It is a proprietary mixture. SDS, or MSD sheets have always listed it as a wax solvent blend. Stoddard Solvents at <85%. The SDS MSDS sheet does have two melting points one at about 112°F I believe and the solids at 168° F The natural Carnauba solids that are part of the emulsion or anything else are not disclosed on the SDS, or MSD sheets.
Are there applicable certification requirements?	
Yes	
No	x
Please explain:	
Are there any applicable regulations that apply to the production of this item?	
Yes	
No	x
Please explain:	
Are there any other standards / requirements?	
Yes	
No	x
Please explain:	
NAICS CODES:	
NAICS 1	
NAICS 2	
Additional Comments:	
Additional technical comments:	
Volume and Pricing:	
Estimated Potential Business Volume (i.e. #units per day, month, year):	Typically two to six 55 gallon drums a year are ordered. In the last four years it has been only two 55-gallon drums
Estimated Target Price/Unit Cost Information:	Current product is $19.00 per gallon
Delivery Requirements:	
When is it needed by? (Immediate, 30 days, 6 months, etc.)	Approximately 6-8 months from now.
Describe packaging requirements (i.e. individually/group packaging, etc.)	Currently it is in 55 metal drums, we don't particularly care how it is packaged as long as it is easy to move when needed, protected, and all of the lubricant can be used.
Where will this item be shipped?	Wilbraham, MA
Additional Comments:	
Is there other information you would like to include?	