Proposed Item for Biobased Designation

The following biobased product information has been collected to support item designation by USDA for the Federal Biobased Product Preferred Procurement Program (FB4P). This summary reflects data available as of March 3, 2006.

Title: Fire Arm Lubricants

Description: Reduces the friction and wear between parts/mechanisms in a firearm.

Manufacturers Identified: 2 manufacturers producing Fire Arm Lubricants have been identified through internet searches, manufacturer's directories, trade associations, and company submissions.

Industry Associations Investigated: The following industry associations have been investigated for member companies producing Fire Arm Lubricants:

- United Biobased Manufacturer Association
- United Soybean Board
- National Rifle Association
- American Shooting Sports Council
- National Association of Firearms Retailers
- National Shooting Sports Foundation

Commercially Available Products Identified: Of the manufacturers identified, 2 Fire Arm Lubricants are commercially available on the market.

Product Information Collected: Specific product information including company contact, intended use, biobased content, and performance characteristics have been collected on 2 Fire Arm Lubricants.

Industry Performance Standards: Product information submitted by biobased manufacturers indicate that have typically been tested to the following industry standards:

- American Society for Testing and Materials #D-93 Standard Test Methods for Flash-Point by Pensky-Martens Closed Cup Tester
- American Society for Testing and Materials #D-130 Standard Test Method for Corrosiveness to Copper from Petroleum Products by Copper Strip Test,
- American Society for Testing and Materials #D-445 Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity)
- American Society for Testing and Materials #D5864-00 Standard Test Method for Determining Aerobic Aquatic Biodegradation of Lubricants or Their Components
- American Society for Testing and Materials #D-5985 Standard Test Method for Pour Point of Petroleum Products (Rotational Method)
- American Society for Testing and Materials #D-665 Standard Test Method for Rust-Preventing Characteristics of Inhibited Mineral Oil in the Presence of Water;

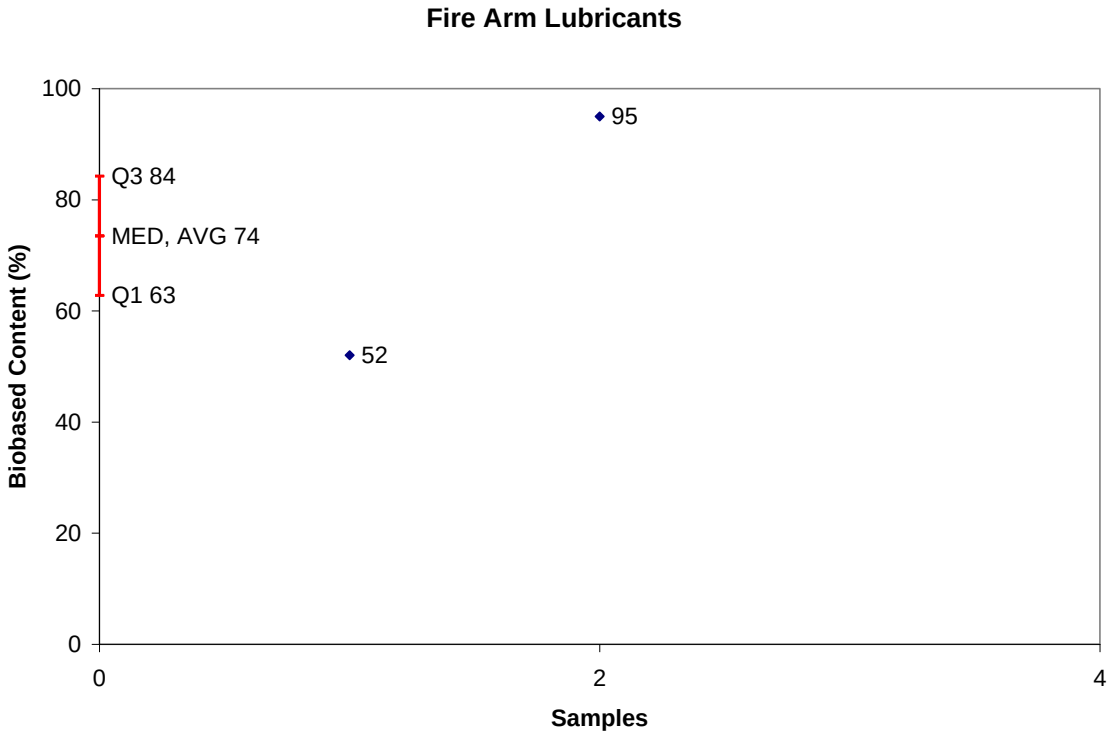
Samples Tested for Biobased Content: 2 samples of Fire Arm Lubricants have been submitted to independent laboratories for biobased content testing as specified by ASTM standard D6866-04.

Biobased Content Data: Results from biobased content testing of Fire Arm Lubricants indicate a range of content percentages from 52% minimum to 95% maximum biobased content as defined by ASTM D 6866-04. A detailed distribution of biobased content levels is included as Appendix A.

Products Submitted for BEES Analysis: Life-cycle cost and environmental effect data for 2 Fire Arm Lubricants have been submitted to NIST for BEES analysis.

BEES Analysis: The life-cycle costs of the submitted Fire Arm Lubricants range from $4.00 minimum to $42.13 maximum per usage unit. The environmental scores range from 0.0236 minimum to 0.0501 maximum. A detailed summary of the BEES results is included as Appendix B.

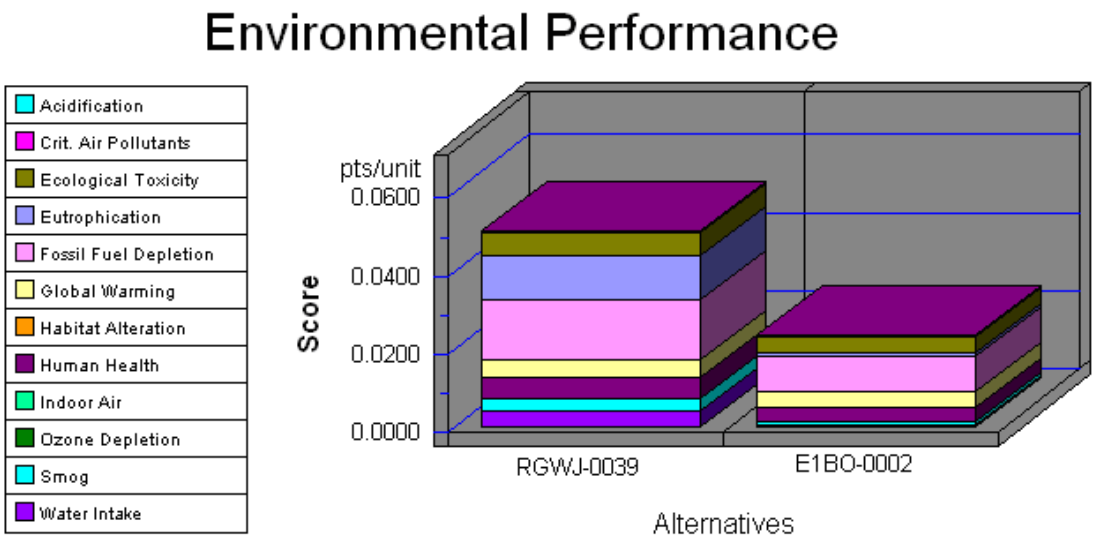
Appendix A - Biobased Content Data



	Manufacturers Identified	Products Identified	C14	BEES
1	RGWJ	RGWJ-0039	52	yes
2	E1BO	E1BO-0002	95	yes

Appendix B - BEES Analysis Results

Functional Unit: 1 gallon of firearm lubricant

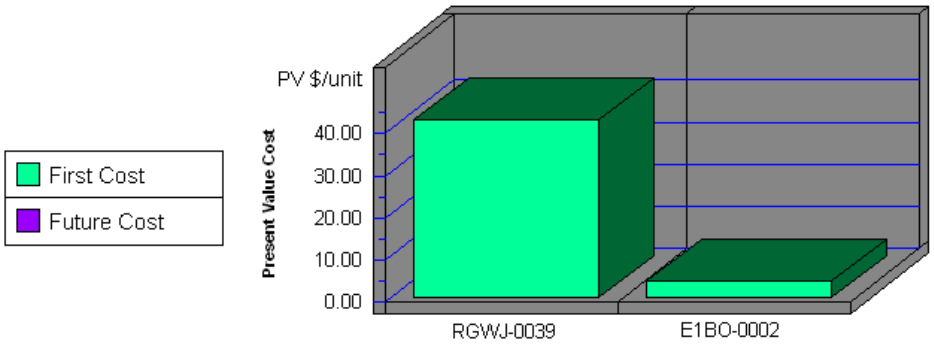


Note: Lower values are better

Category	RGWJ-0039	E1BO-0002
Acidification--5%	0.0000	0.0000
Crit. Air Pollutants--6%	0.0002	0.0002
Ecolog. Toxicity--11%	0.0061	0.0043
Eutrophication--5%	0.0110	0.0007
Fossil Fuel Depl.--5%	0.0154	0.0091
Global Warming--16%	0.0044	0.0040
Habitat Alteration--16%	0.0000	0.0000
Human Health--11%	0.0056	0.0035
Indoor Air--11%	0.0000	0.0000
Ozone Depletion--5%	0.0000	0.0000
Smog--6%	0.0032	0.0010
Water Intake--3%	0.0042	0.0008
Sum	0.0501	0.0236

Appendix B (continued)

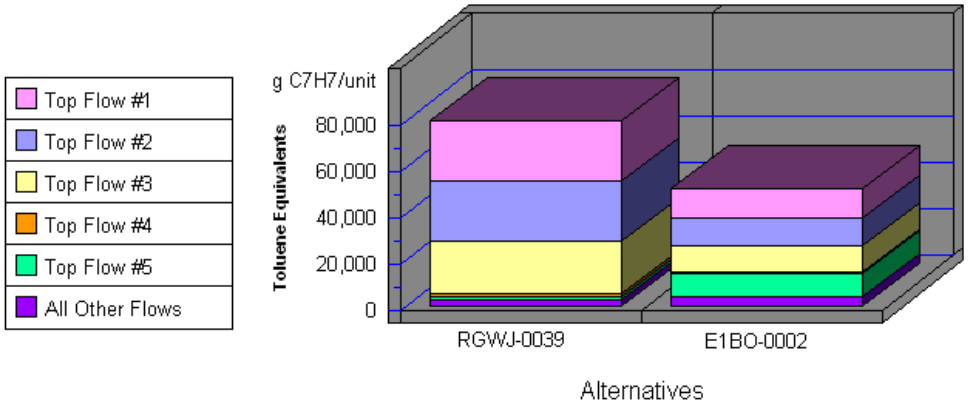
Economic Performance



Category	RGWJ-0039	E1BO-0002
First Cost	42.13	4.00
Future Cost-- 3.9%	0.00	0.00
Sum	42.13	4.00

*No significant/quantifiable durability differences were identified among competing alternatives. Therefore, future costs were not calculated.

Human Health by Sorted Flows*



Note: Lower values are better

Category	RGWJ-0039	E1BO-0002
Cancer--(w) Arsenic (As3+, As5+	26,159.88	12,976.68
Cancer--(w) Phenol (C6H5OH)	25,898.14	11,786.46
Cancer--(a) Dioxins (unspecifie	22,975.60	11,219.75
Noncancer--(a) Dioxins (unspeci	1,371.84	669.91
Cancer--(a) Arsenic (As)	944.31	10,422.36
All Others	3,058.02	4,105.57
Sum	80,407.78	51,180.73

*Sorted by five topmost flows for worst-scoring product