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 July 26, 2006.

Title: Sorbents

Description: Materials that have the ability to absorb fluids used for the clean up of spills, disposal of liquid materials, and to prevent unwanted leakage or leaching. May be hydrophobic.

Manufacturers Identified: 16 manufacturers producing Sorbents 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 Sorbents:

- Safety Systems Hawaii
- International Petroleum Industry
- Environmental Conservation Association
- Environmental Conservation Association
- National Corn Growers Association
- Spill Control Association of America
- International Spill Control Organization

Commercially Available Products Identified: Of the manufacturers identified, 29 Sorbents 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 14 Sorbents.

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 #D726-94(2003) Standard Test Method for Resistance of Nonporous Paper to Passage of Air
- Canadian General Standards Board #CAN/CGSB-183.2-94 Method for Testing Sorbents
- American Society for Testing and Materials #D2974-00 Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils

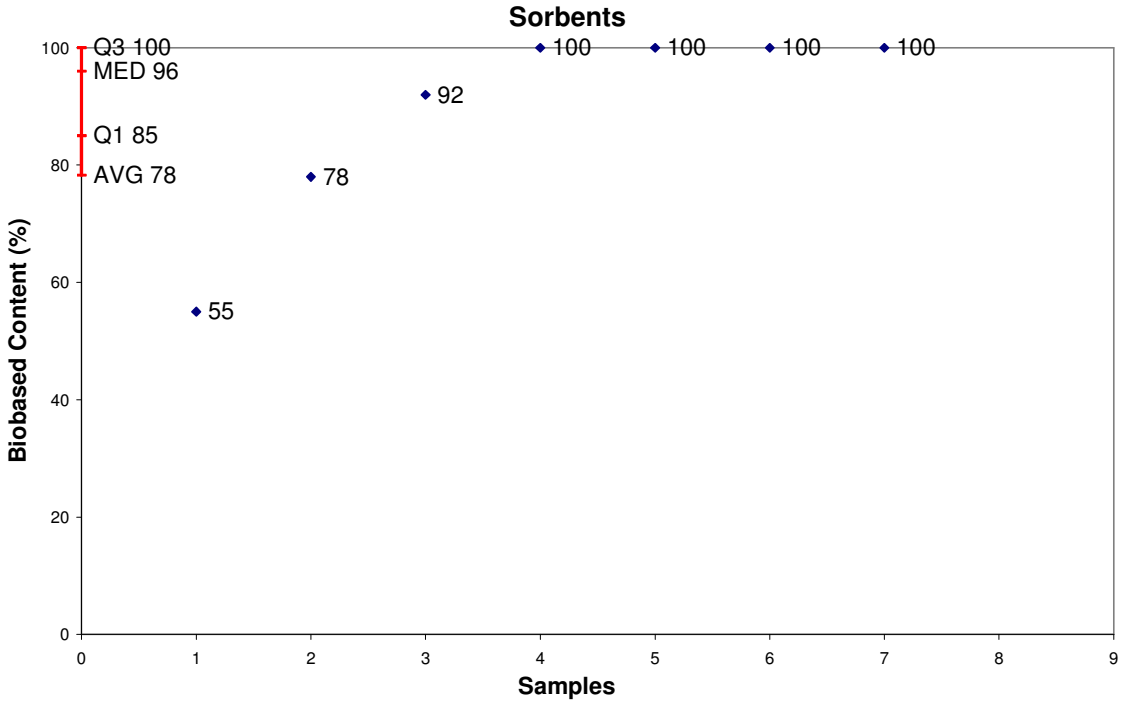
Samples Tested for Biobased Content: 7 samples of Sorbents have been submitted to independent laboratories for biobased content testing as specified by ASTM standard D6866-04.

Biobased Content Data: Results from biobased content testing of Sorbents indicate a range of content percentages from 55% minimum to 100% 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 Sorbents have been submitted to NIST for BEES analysis.

BEES Analysis: The life-cycle costs of the submitted Sorbents range from $11.83 minimum to $49.94 maximum per usage unit. The environmental scores range from 0.0957 minimum to 0.1159 maximum. A detailed summary of the BEES results is included as Appendix B.

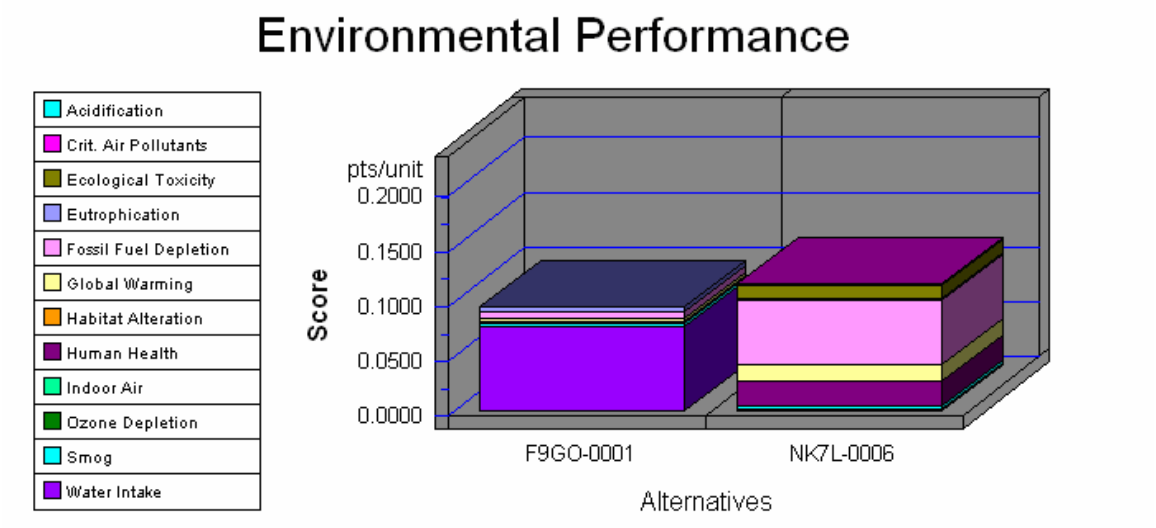
Appendix A - Biobased Content Data



	Manufacturers Identified	Products Identified	C14	BEES
1	W63V	W63V-0001	55	no
2	WF5U	WF5U-0004	78	no
3	WF5U	WF5U-0003	92	no
4	QN5K	QN5K-0001	100	no
5	A3NJ	A3NJ-0003	100	no
6	M7FY	M7FY-0005	100	no
7	F9GO	F9GO-0001	100	yes
8	NK7L	NK7L-0006		yes

Appendix B - BEES Analysis Results

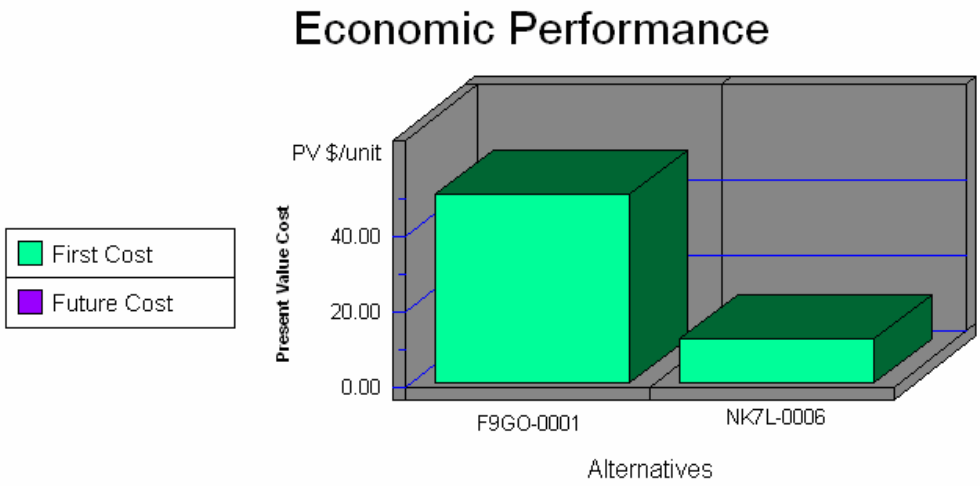
Functional Unit: Absorbing 1 barrel of light crude oil



Note: Lower values are better

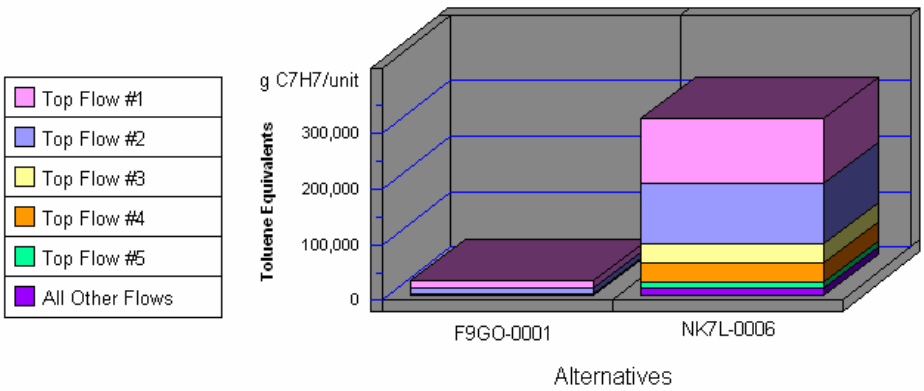
Category	F9GO-0001	NK7L-0006
Acidification--5%	0.0000	0.0000
Crit. Air Pollutants--6%	0.0001	0.0014
Ecolog. Toxicity--11%	0.0006	0.0113
Eutrophication--5%	0.0040	0.0018
Fossil Fuel Depl.--5%	0.0059	0.0583
Global Warming--16%	0.0026	0.0156
Habitat Alteration--16%	0.0000	0.0000
Human Health--11%	0.0020	0.0221
Indoor Air--11%	0.0000	0.0000
Ozone Depletion--5%	0.0000	0.0000
Smog--6%	0.0024	0.0033
Water Intake--3%	0.0781	0.0021
Sum	0.0957	0.1159

Appendix B - Continued



Category	F9GO-0001	NK7L-0006
First Cost	49.94	11.83
Future Cost-- 3.9%	0.00	0.00
Sum	49.94	11.83

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



Note: Lower values are better

Category	F9GO-0001	NK7L-0006
Cancer--(w) Arsenic (As3+, As5+	13,234.83	116,858.93
Cancer--(w) Phenol (C6H5OH)	11,385.56	108,243.00
Cancer--(a) Dioxins (unspecifie	1,914.63	35,037.79
Cancer--(a) Arsenic (As)	881.35	33,435.48
Cancer--(a) Benzene (C6H6)	120.48	10,444.50
All Others	1,246.11	14,841.66
Sum	28,782.97	318,861.36

*Sorted by five topmost flows for worst-scoring product