

Proposed Item for Biobased Designation

The following biobased product information has been collected to support item designation by USDA for the BioPreferred Program. This summary reflects data available as of January 24, 2007.

Title: Parts Wash Solutions

Description: Products that are designed to clean parts in manual or automatic cleaning systems. Such systems include, but are not limited to, soak vats and tanks, cabinet washers, and ultrasonic cleaners.

Manufacturers Identified: 16 manufacturers producing Parts Wash Solutions 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 Parts Wash Solutions:

- Biobased Manufacturers Association
- United Soybean Board
- American Soybean Association
- Society of Automotive Engineers
- National Association of Manufacturers
- Fabricators and Manufacturers Association International
- Society of Manufacturing Engineers
- Tube and Pipe Association
- Institute of Industrial Engineers
- National Tooling & Machining Association
- Precision Machined Products Association

Commercially Available Products Identified: Of the manufacturers identified, 22 Parts Wash Solutions 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 4 Parts Wash Solutions.

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 #D92-05a Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester
- American Society for Testing and Materials #D446-04 Standard Specifications and Operating Instructions for Glass Capillary Kinematic Viscometers
- American Society for Testing and Materials #D445-04e2 Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity)
- American Society for Testing and Materials #D877-02e1 Standard Test Method for Dielectric Breakdown Voltage of Insulating Liquids Using Disk Electrodes

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

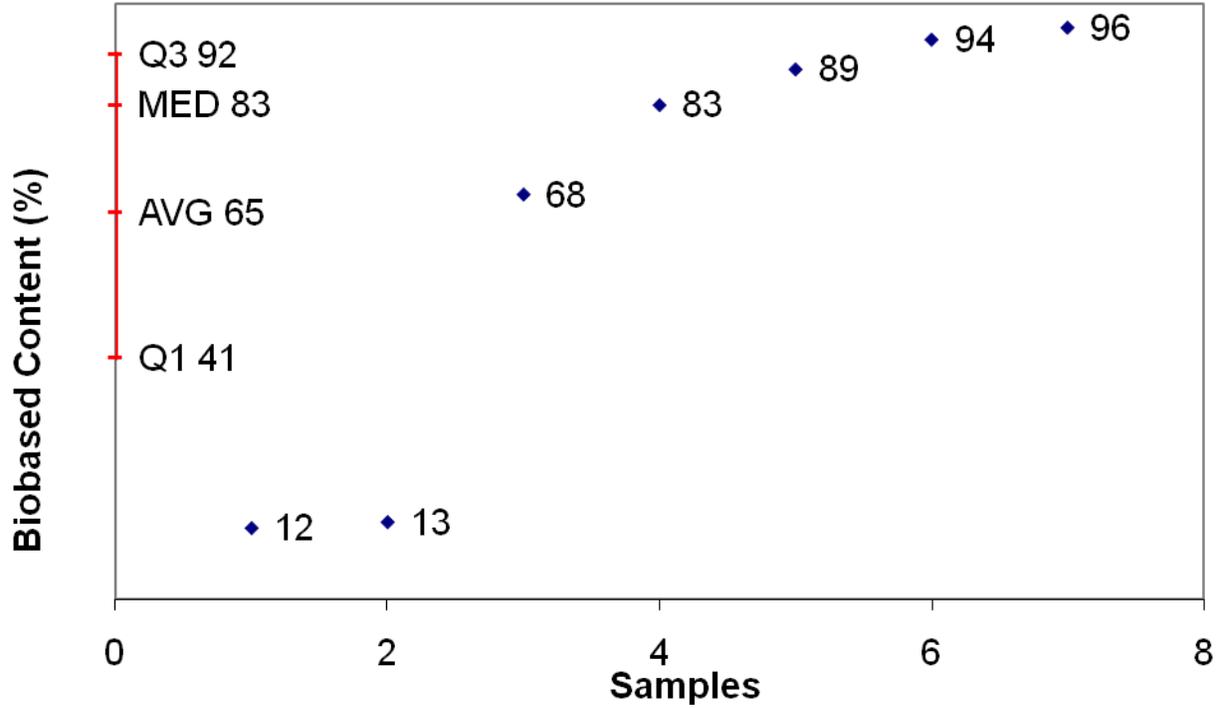
Biobased Content Data: Results from biobased content testing of Parts Wash Solutions indicate a range of content percentages from 12% minimum to 96% maximum biobased content as defined by ASTM D 6866-04. A detailed distribution of biobased content levels is included as Appendix A.

Products Submitted for BEES Analysis: Life-cycle cost and environmental effect data for 2 Parts Wash Solutions have been submitted to NIST for BEES analysis.

BEES Analysis: The life-cycle costs of the submitted Parts Wash Solutions range from \$10.43 minimum to \$16.99 maximum per usage unit. The environmental scores range from 0.0278 minimum to 0.0421 maximum. A detailed summary of the BEES results is included as Appendix B.

Appendix A - Biobased Content Data

Parts Wash Solutions



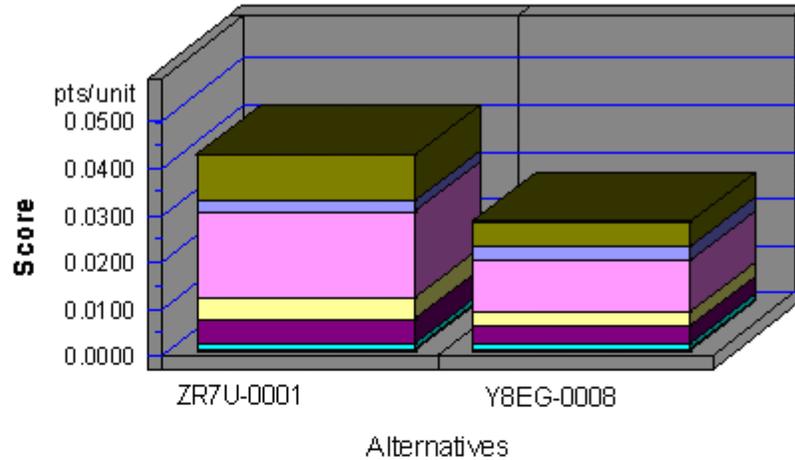
	Companies Identified	Products Identified	C14	BEES
1	WF5U	WF5U-0038	12	
2	YJ3R	YJ3R-0009	13	
3	ZR7U	ZR7U-0001	68	yes
4	Y8EG	Y8EG-0008	83	yes
5	RYB8	RYB8-0002	89	
6	RGWJ	RGWJ-0021	94	
7	W64A	W64A-0006	96	

Appendix B - BEES Analysis Results

Units: 1 gallon

Environmental Performance

Acidification
Crit. Air Pollutants
Ecological Toxicity
Eutrophication
Fossil Fuel Depletion
Global Warming
Habitat Alteration
Human Health
Indoor Air
Ozone Depletion
Smog
Water Intake

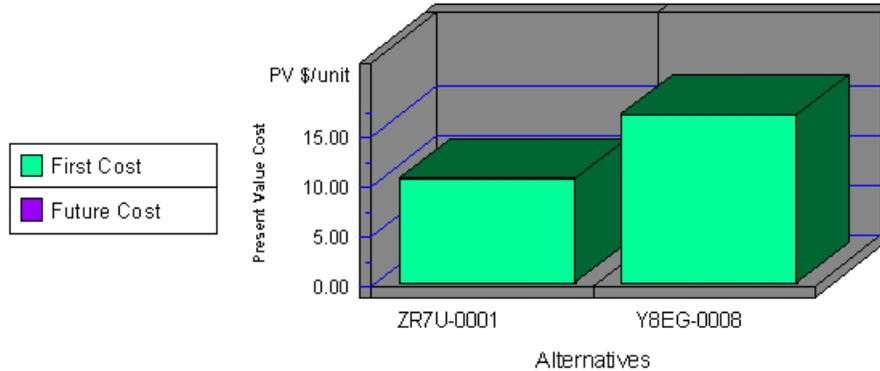


Note: Lower values are better

Category	ZR7U-0001	Y8EG-0008
Acidification--5%	0.0000	0.0000
Crit. Air Pollutants--6%	0.0003	0.0002
Ecolog. Toxicity--11%	0.0096	0.0054
Eutrophication--5%	0.0023	0.0028
Fossil Fuel Depl.--5%	0.0183	0.0108
Global Warming--16%	0.0047	0.0032
Habitat Alteration--16%	0.0000	0.0000
Human Health--11%	0.0052	0.0038
Indoor Air--11%	0.0000	0.0000
Ozone Depletion--5%	0.0000	0.0000
Smog--6%	0.0012	0.0009
Water Intake--3%	0.0005	0.0007
Sum	0.0421	0.0278

Appendix B (continued)

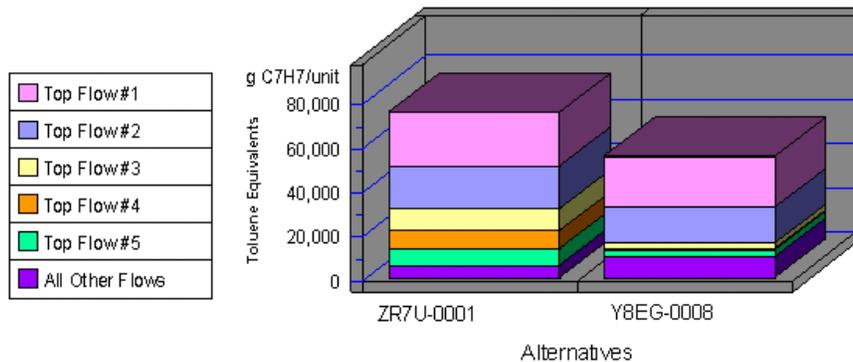
Economic Performance



Category	ZR7U-0001	Y8EG-0008
First Cost	10.43	16.99
Future Cost - 3.9%	0.00	0.00
Sum	10.43	16.99

*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	ZR7U-0001	Y8EG-0008
Cancer-(w) Arsenic (As3+, As5+)	24,783.04	22,889.89
Cancer-(w) Phenol (C6H5OH)	19,163.02	16,196.36
Cancer-(a) Arsenic (As)	9,722.87	2,811.94
Noncancer-(a) Mercury (Hg)	7,990.89	801.01
Cancer-(a) Dioxins (unspecifie)	7,581.95	2,695.80
All Others	6,129.69	9,791.59
Sum	75,371.46	55,186.60

*Sorted by five topmost flows for worst-scoring product