

Proposed Product Category for Biobased Designation

The following biobased product information has been collected to support product category designation by USDA for the BioPreferred Program. This summary reflects data available as of December 28, 2007.

Title: Furniture Cleaners and Protectors

Description: Products designed to clean and provide protection to the surfaces of household furniture other than the upholstery.

Companies Supplying Product Category: 24 companies supplying Furniture Cleaners and Protectors 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 supplying Furniture Cleaners and Protectors:

- United Soybean Board Association
- National Corn Growers Association
- Ohio Corn Growers Association
- Michigan Corn Growers Association
- Association of Specialists in Cleaning and Restoration

Commercially Available Products Identified: Of the companies identified, 36 Furniture Cleaners and Protectors 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 8 Furniture Cleaners and Protectors.

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

- No Results

Samples Tested for Biobased Content: 6 samples of Furniture Cleaners and Protectors have been submitted to independent laboratories for biobased content testing as specified by ASTM standard D6866-04.

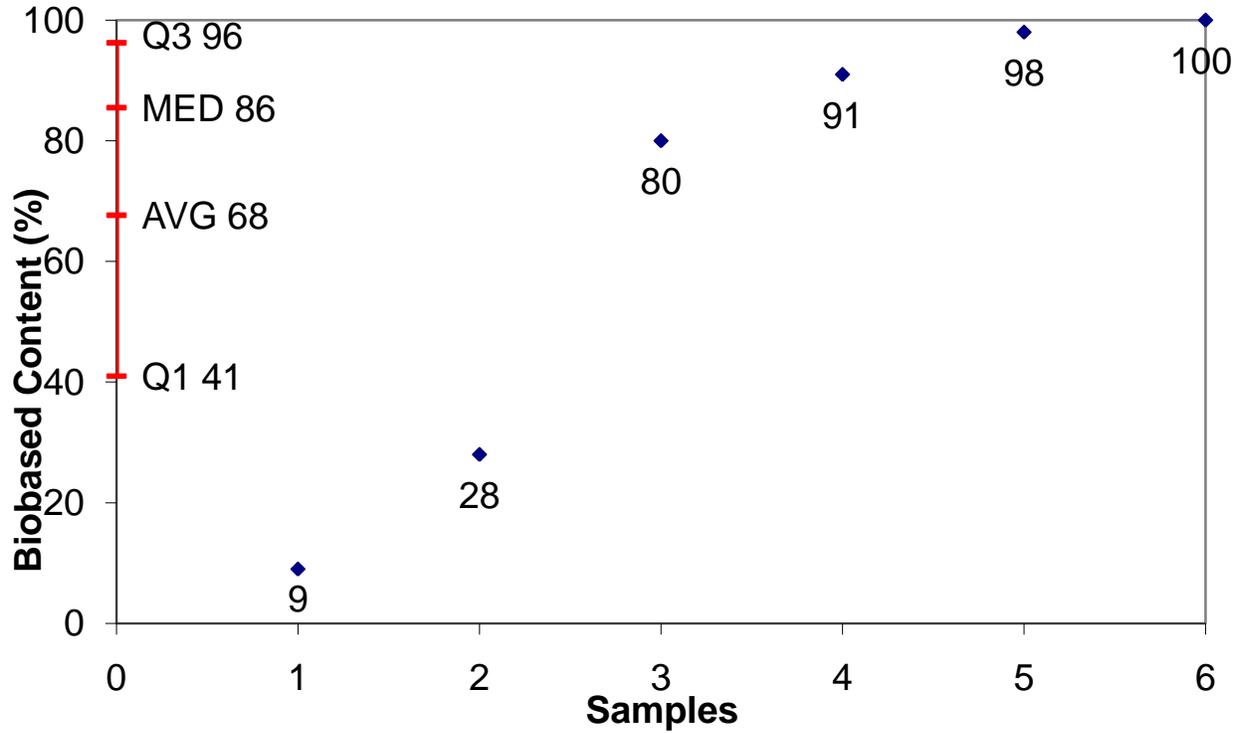
Biobased Content Data: Results from biobased content testing of Furniture Cleaners and Protectors indicate a range of content percentages from 9% minimum to 100% maximum biobased content as defined by ASTM D 6866-04. A detailed distribution of biobased content levels is included as Appendix A.

Products Submitted for BEES Analysis: Life-cycle cost and environmental effect data for 2 Furniture Cleaners and Protectors have been submitted to NIST for BEES analysis.

BEES Analysis: The life-cycle costs of the submitted Furniture Cleaners and Protectors range from \$9.63 minimum to \$14.63 maximum per usage unit. The environmental scores range from 0.0056 minimum to 0.0102 maximum. A detailed summary of the BEES results is included as Appendix B.

Appendix A - Biobased Content Data

Furniture Cleaners and Protectors

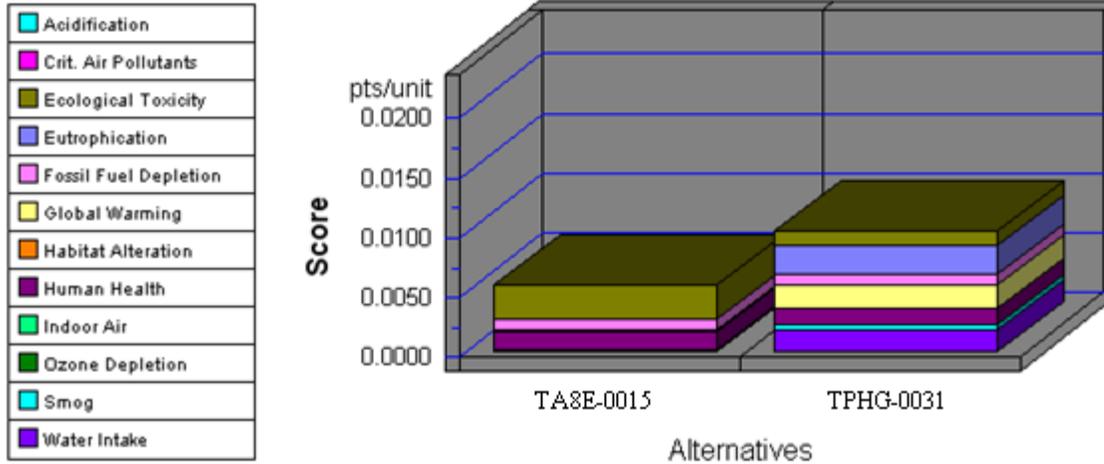


	Company	Product	C14	BEES
1	C9PX	C9PX-0015	9	
2	TA8E	TA8E-0015	28	Yes
3	X4H4	X4H4-0001	80	
4	TPHG	TPHG-0031	91	Yes
5	U2GG	U2GG-0001	98	
6	FCM9	FCM9-0006	100	

Appendix B - BEES Analysis Results

Functional Unit: 1 gallon

Environmental Performance



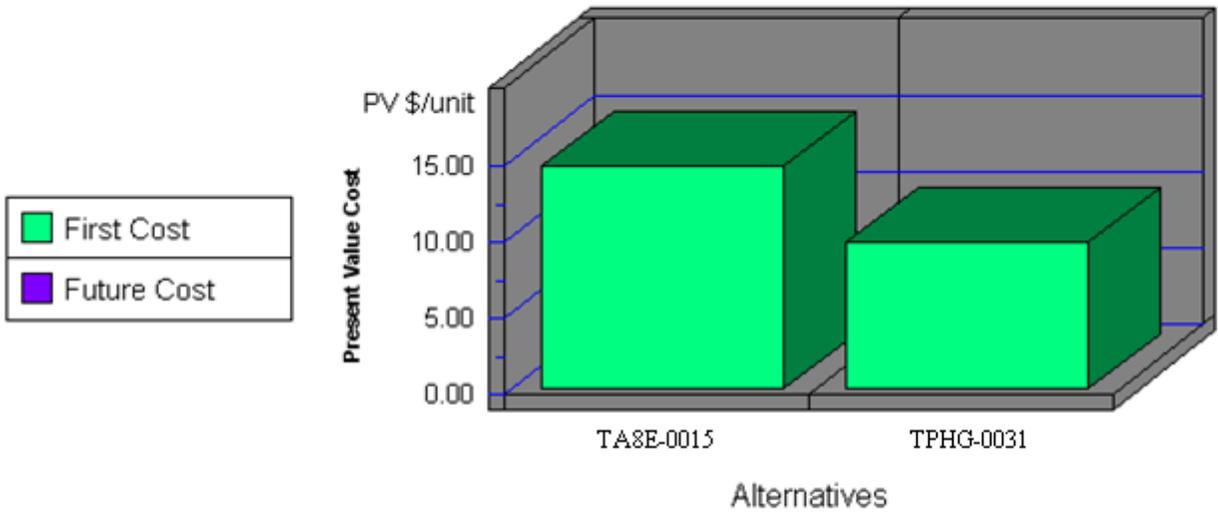
Note: Lower values are better

Category	TA8E-0015	TPHG-0031
Acidification--3%	0.0000	0.0000
Crit. Air Pollutants--9%	0.0000	0.0001
Ecolog. Toxicity--7%	0.0028	0.0012
Eutrophication--6%	0.0000	0.0023
Fossil Fuel Depl.--10%	0.0009	0.0010
Global Warming--29%	0.0002	0.0019
Habitat Alteration--6%	0.0000	0.0000
Human Health--13%	0.0015	0.0013
Indoor Air--3%	0.0000	0.0000
Ozone Depletion--2%	0.0000	0.0000
Smog--4%	0.0000	0.0005
Water Intake--8%	0.0002	0.0019
Sum	0.0056	0.0102

Furniture Cleaners and Protectors			
Impacts	Units	TA8E-0015	TPHG-0031
Acidification	millimoles H ⁺ equivalents	5.20E+00	8.49E+02
Criteria Air Polutants	microDALYs	4.71E-02	1.55E-01
Ecotoxicity	g 2,4-D equivalents	3.25E+01	1.45E+01
Eutrophication	g N equivalents	1.01E-01	7.52E+00
Fossil Fuel Depletion	MJ surplus energy	3.35E+00	3.52E+00
Global Warming	g CO ₂ equivalents	1.59E+02	1.72E+03
Habitat Alteration	T&E count	0.00E+00	0.00E+00
Human Health--Cancer	g C ₆ H ₆ equivalents	7.97E-01	8.65E-01
Human Health--NonCancer	g C ₇ H ₈ equivalents	8.98E+03	6.77E+02
Indoor Air Quality	g TVOCs	0.00E+00	0.00E+00
Ozone Depletion	g CFC-11 equivalents	1.70E-06	8.68E-08
Smog	g NO _x equivalents	4.78E-01	2.06E+01
Water Intake	liters of water	1.25E+01	1.29E+02
Functional Unit	-----	1 Gallon	

1 Following are more complete descriptions of units: Acidification: millimoles of hydrogen ion equivalents; Criteria Air Pollutants: micro Disability-Adjusted Life Years; Ecological Toxicity: grams of 2,4-dichlorophenoxy-acetic acid equivalents; Eutrophication: grams of nitrogen equivalents; Fossil Fuel Depletion: megajoules of surplus energy; Global Warming: grams of carbon dioxide equivalents; Habitat Alteration: threatened and endangered species count; Human Health-Cancer: grams of benzene equivalents; Human Health-NonCancer: grams of toluene equivalents; Indoor Air Quality: grams of Total Volatile Organic Compounds; Ozone Depletion: grams of chlorofluorocarbon-11 equivalents; Smog: grams of nitrogen oxide equivalents; and Water Intake: liters of water.

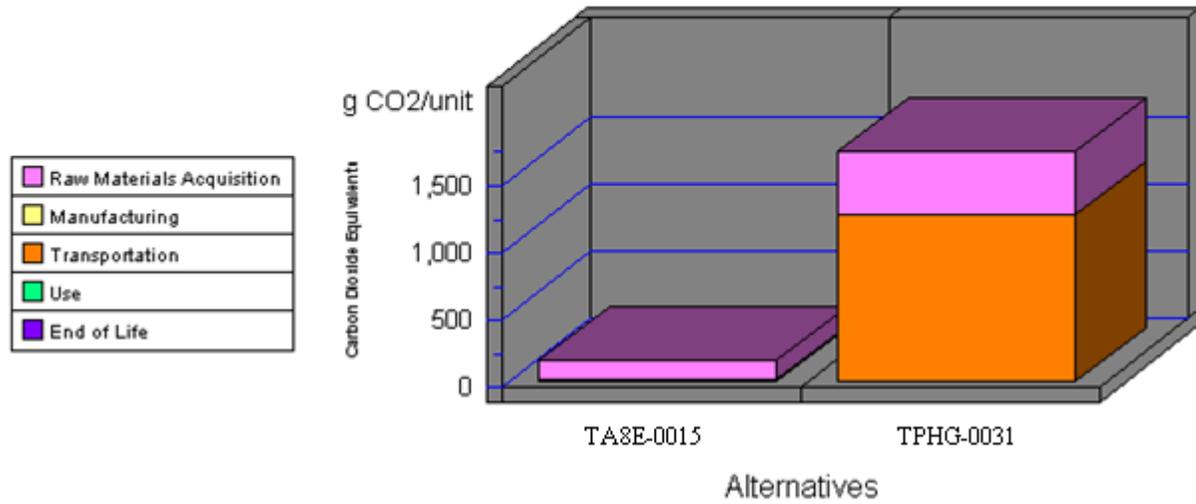
Economic Performance



Category	TA8E-0015	TPHG-0031
First Cost	14.63	9.63
Future Cost- 3.0%	0.00	0.00
Sum	14.63	9.63

*This is a consumable product. Therefore, future costs are not calculated.

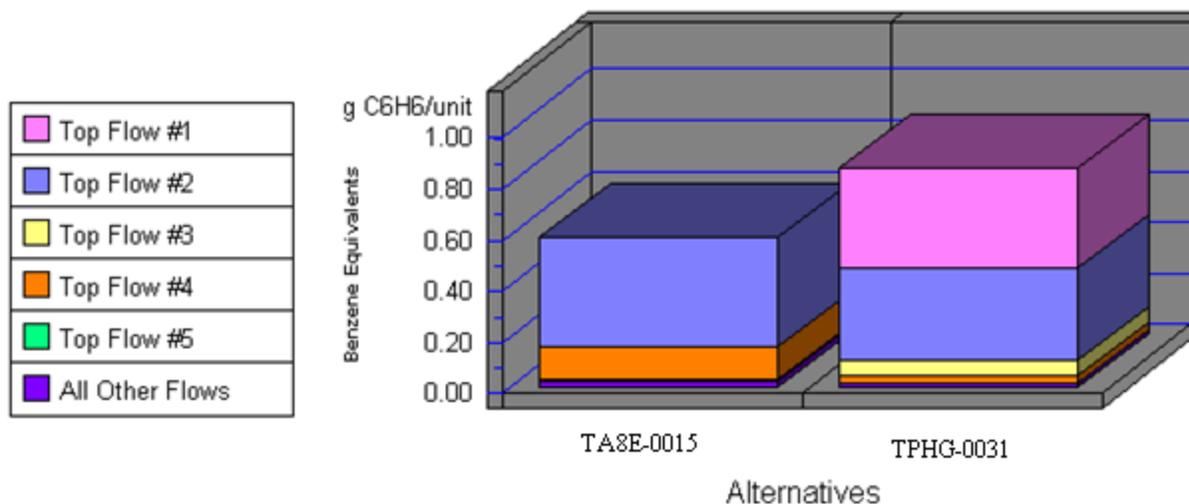
Global Warming by Life-Cycle Stage



Note: Lower values are better

Category	TA8E-0015	TPHG-0031
1. Raw Materials	143	474
2. Manufacturing	0	1
3. Transportation	16	1244
4. Use	0	0
5. End of Life	0	0
Sum	159	1719

Human Health Cancer by Sorted Flows*

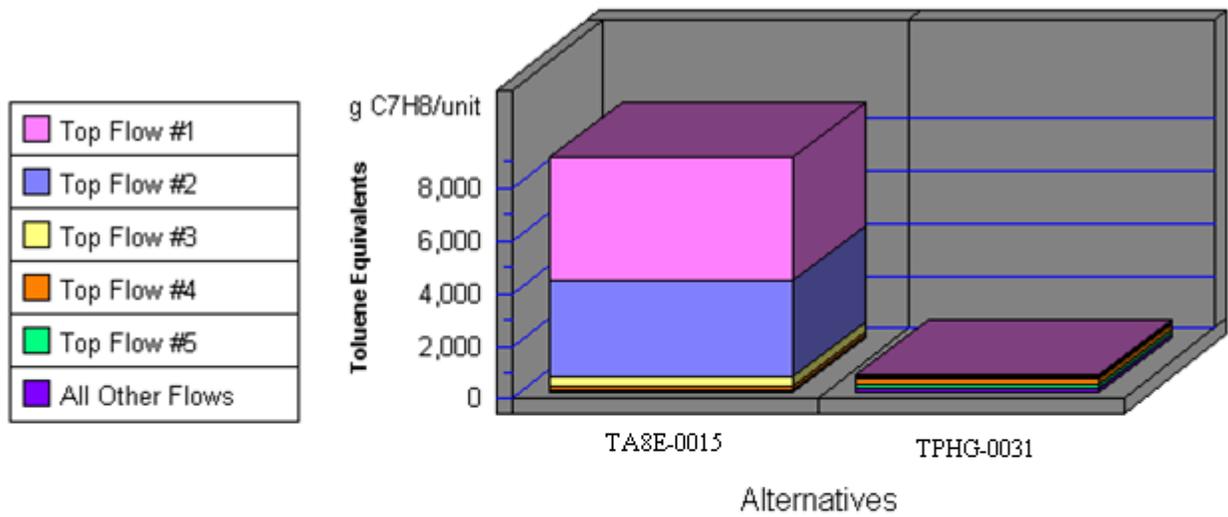


Note: Lower values are better

Category	TA8E-0015	TPHG-0031
Cancer--(a) 2,4 - D (C8H6Cl2O3)	0.00	0.40
Cancer--(w) Phenol (C6H5OH)	0.43	0.36
Cancer--(a) Dioxins (unspecifie	0.00	0.06
Cancer--(a) Arsenic (As)	0.13	0.03
Cancer--(a) Benzene (C6H6)	0.01	0.00
All Others	0.02	0.02
Sum	0.59	0.86

*Sorted by five topmost flows for worst-scoring product

Human Health Noncancer by Sorted Flows*



Note: Lower values are better

Category	TA8E-0015	TPHG-0031
Noncancer--(a) Mercury (Hg)	4,743.56	80.01
Noncancer--(w) Mercury (Hg+, Hg)	3,639.87	30.84
Noncancer--(a) Lead (Pb)	368.10	15.50
Noncancer--(w) Barium (Ba++)	102.22	249.68
Noncancer--(w) Lead (Pb++, Pb4+)	50.74	108.19
All Others	78.16	192.86
Sum	8,982.65	677.08

*Sorted by five topmost flows for worst-scoring product