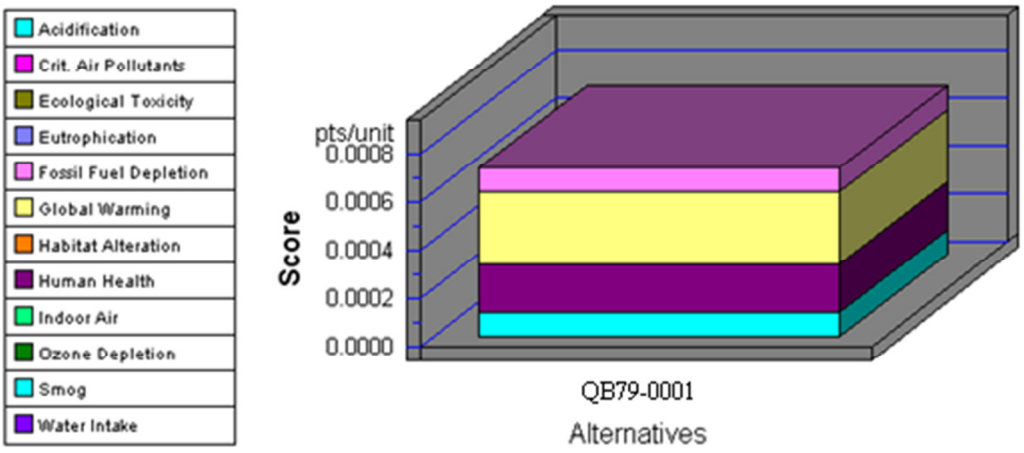
BEES Results: Packaging and Insulating Materials **Units: 1 cu. Ft.**
BioPreferred ID# QB79-0001

Environmental Performance



Note: Lower values are better

Category	QB79-0001
Acidification--3%	0.0000
Crit. Air Pollutants--9%	0.0000
Ecolog. Toxicity--7%	0.0000
Eutrophication--6%	0.0000
Fossil Fuel Depl.--10%	0.0001
Global Warming--29%	0.0003
Habitat Alteration--6%	0.0000
Human Health--13%	0.0002
Indoor Air--3%	0.0000
Ozone Depletion--2%	0.0000
Smog--4%	0.0001
Water Intake--8%	0.0000
Sum	0.0007

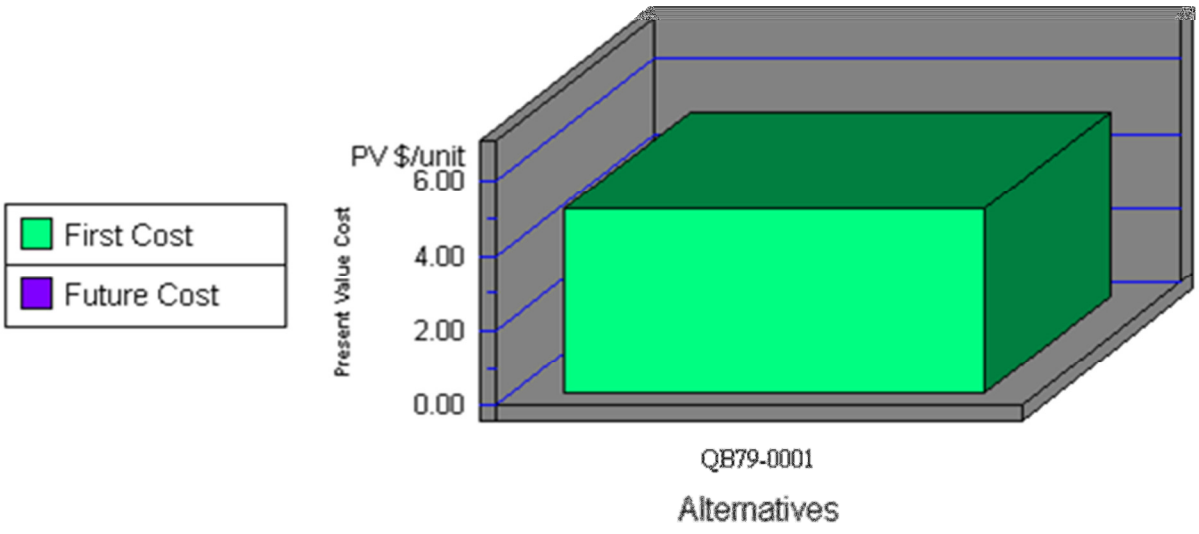
BEES Results: Packaging and Insulating Materials **Units: 1 cu. Ft.**
BioPreferred ID# QB79-0001

Packaging Products		
Impacts	Units	QB79-0001
Acidification	millimoles H^+ equivalents	7.48E+01
Criteria Air Polutants	microDALYs	1.13E-02
Ecotoxicity	g 2,4-D equivalents	3.26E-01
Eutrophication	g N equivalents	7.12E-02
Fossil Fuel Depletion	MJ surplus energy	3.89E-01
Global Warming	g CO_2 equivalents	2.27E+02
Habitat Alteration	T&E count	0.00E+00
Human Health--Cancer	g C_6H_6 equivalents	1.10E-01
Human Health--NonCancer	g C_7H_8 equivalents	8.59E+01
Indoor Air Quality	g TVOCs	0.00E+00
Ozone Depletion	g CFC-11 equivalents	1.08E-08
Smog	g NO_x equivalents	1.96E+00
Water Intake	liters of water	0.00E+00
Functional Unit	----------	1 cubic foot

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 chloroflourocarbon-11 equivalents; Smog: grams of nitrogen oxide equivalents; and Water Intake: liters of water.

BEES Results: Packaging and Insulating Materials **Units: 1 cu. Ft.**
BioPreferred ID# QB79-0001

Economic Performance

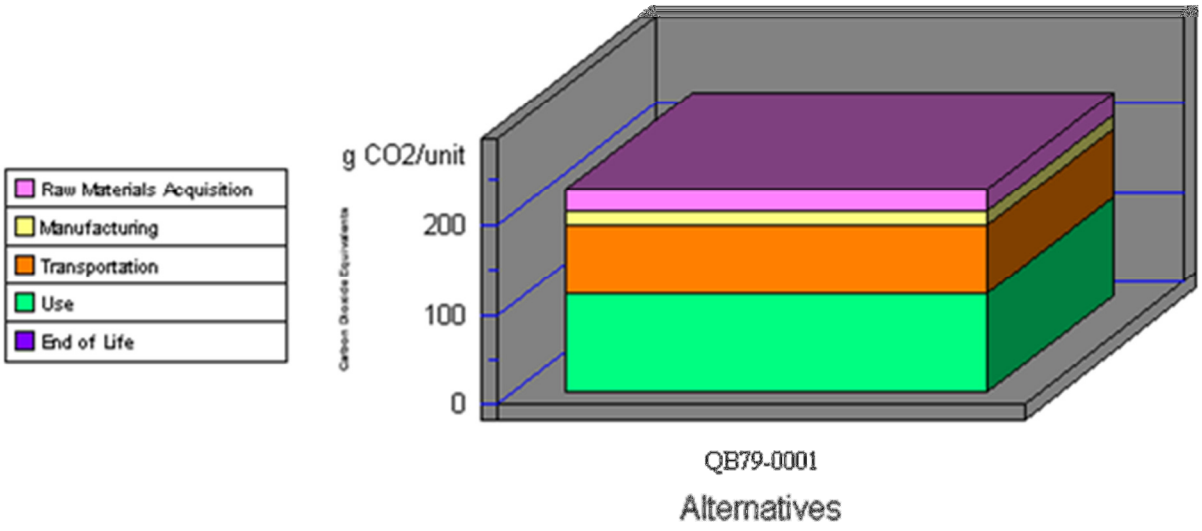


Category	QB79-0001
First Cost	4.95
Future Cost-- 3.0%	0.00
Sum	4.95

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

BEES Results: Packaging and Insulating Materials **Units: 1 cu. Ft.**
BioPreferred ID# QB79-0001

Global Warming by Life-Cycle Stage

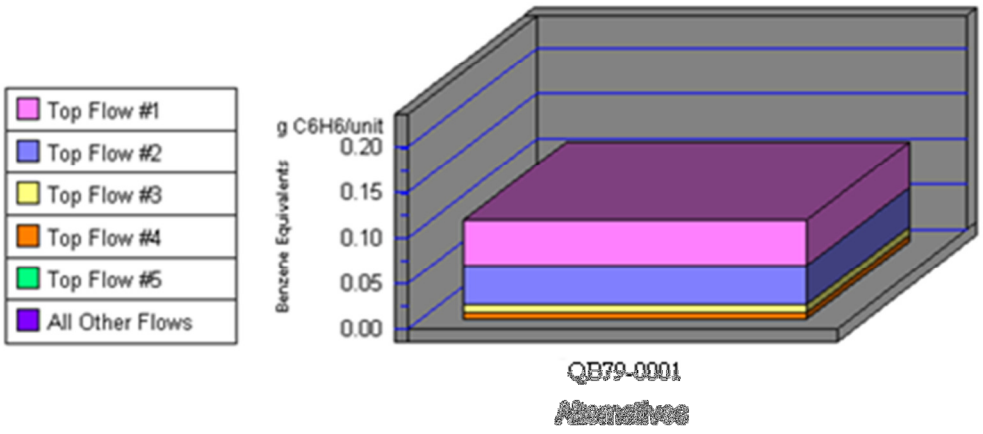


Note: Lower values are better

Category	QB79-0001
1. Raw Materials	25
2. Manufacturing	15
3. Transportation	78
4. Use	110
5. End of Life	0
Sum	227

BEES Results: Packaging and Insulating Materials **Units: 1 cu. Ft.**
BioPreferred ID# QB79-0001

Human Health Cancer by Sorted Flows*



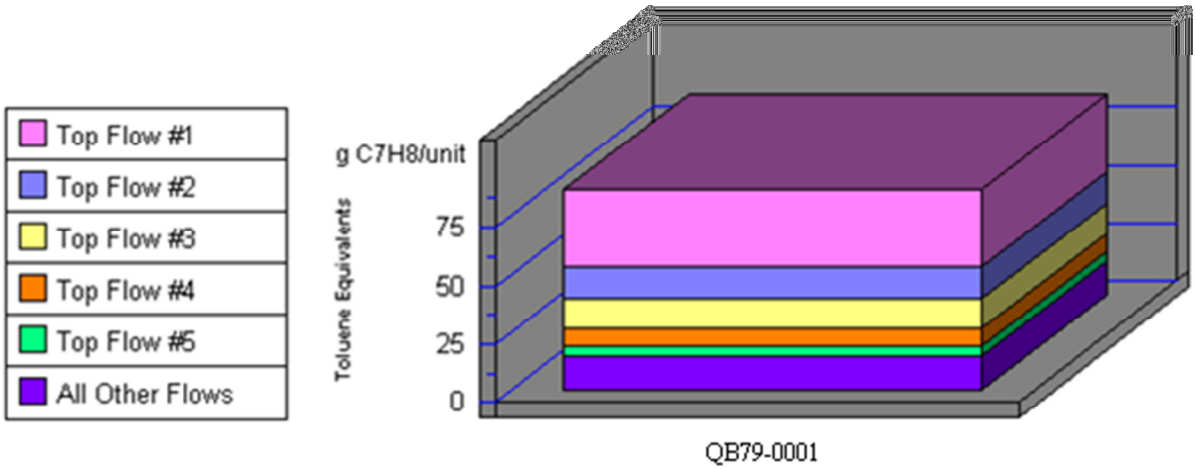
Note: Lower values are better

Category	QB79-0001
Cancer--(w) Arsenic (As3+, As5+	0.05
Cancer--(ag) Phenol (C6H5OH)	0.04
Cancer--(z) Dioxins (unspecific	0.01
Cancer--(g) Arsenic (As)	0.01
Cancer--(a) Benzene (C6H6)	0.00
All Others	0.00
Sums	0.11

*Sorted by five topmost flows for worst-scoring product

BEES Results: Packaging and Insulating Materials **Units: 1 cu. Ft.**
BioPreferred ID# QB79-0001

Human Health Noncancer by Sorted Flows*



Alternatives

Note: Lower values are better

Category	QB79-0001
Noncancer-(w) Barium (Ba++)	32.67
Noncancer-(w) Lead (Pb++, Pb4+	13.65
Noncancer-(a) Dioxins (unspecif	12.59
Noncancer-(a) Mercury (Hg)	8.09
Noncancer-(w) Mercury (Hg+, Hg	3.92
All Others	14.79
Sum	85.92

*Sorted by five topmost flows for worst-scoring product