

Eden Research Laboratory

To: BioSphere

Date: January 6, 2016

From: Thomas Poth

Number of pages including cover: 2

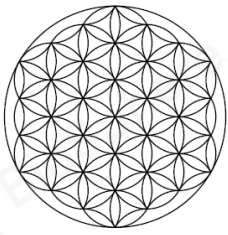
Regarding: ASTM D5511 test update for PE Films - 639 days

Update

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	Inculum	Negative	Positive	914 - LLDPE Can Liner Bag	915 - HDPE T-Shirt Bag	916 - HDPE Produce Bag
Cumulative Gas Volume (mL)	1392.8	1483.8	10571.9	5571.3	9382.6	12135.9
Percent CH ₄ (%)	33.9	31.0	40.8	46.0	47.6	49.2
Volume CH ₄ (mL)	472.0	459.4	4308.1	2562.4	4467.4	5972.6
Mass CH ₄ (g)	0.34	0.33	3.08	1.83	3.19	4.27
Percent CO ₂ (%)	44.0	41.4	42.4	36.7	37.8	38.1
Volume CO ₂ (mL)	612.5	615.0	4481.9	2043.2	3545.4	4618.5
Mass CO ₂ (g)	1.20	1.21	8.80	4.01	6.96	9.07
Sample Mass (g)	1,000	10	10	20.0	20.0	20
Theoretical Sample Mass (g)	0.0	8.6	4.4	17.1	17.1	17.1
Biodegrade d Mass (g)	0.58	0.58	4.71	2.47	4.29	5.67
Percent Biodegrade d (%)		-0.1	93.4	11.0	21.7	29.7
* Adjusted Percent Biodegrade d (%)		-0.1	100.0	11.8	23.2	31.8



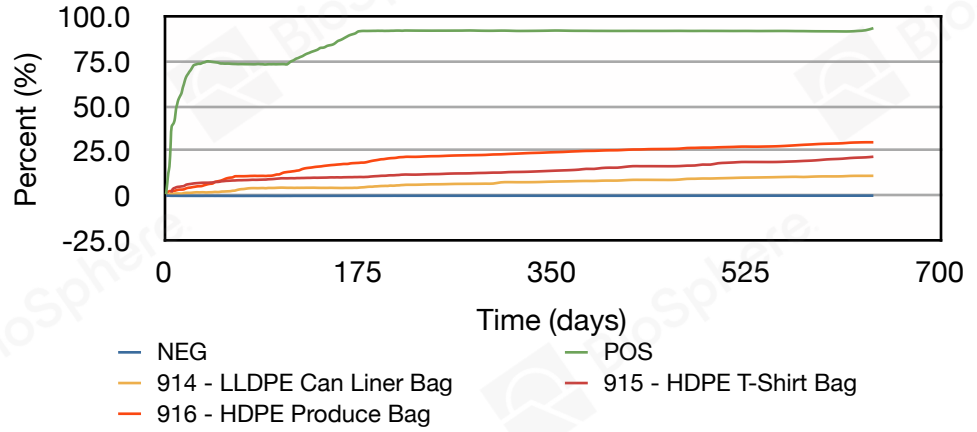
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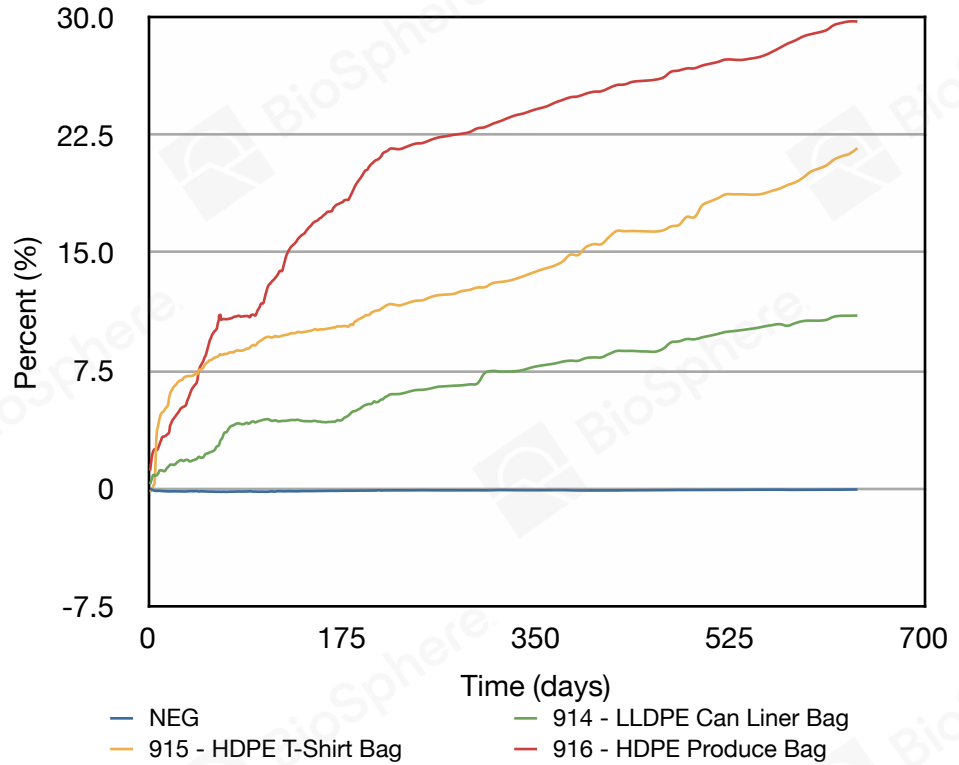
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Biodegradation



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* Outside of the ASTM D5511 method and on the assumption that the positive control (Cellulose) will fully biodegrade, all value have been proportionally adjusted.