

# MATERIAL DECLARATION SHEET



Material Number	96-L Cermet (Single Cup)			
Product Line	Panel Control			
Compliance Date	September 30, 2005			
RoHS Compliant	Yes	MSL	N/A	

No.	Construction Element (subpart)	Homogeneous Material	Material weight [g]	Homogeneous Material/ Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Substrate	Ceramic	0.3	Aluminum Oxide	1344-28-1	95	1.909	2.01
				Silicon Oxide	7631-86-9	2	0.04	
				Magnesium Oxide	7309-48-4	2	0.04	
				Calcium Oxide	1305-78-8	1	0.02	
2	Termination Ink	Ink	0.003	Silver	7440-22-4	75	0.015	0.02
				Palladium	7440-05-3	10	0.002	
				Disbismuth-trioxide	1304-76-3	10	0.002	
				Ruthenium(IV)oxide	12036-10-1	1	0.0002	
				Silicon dioxide	7631-86-9	1	0.0002	
				Nickel-monoxide	1313-99-1	1	0.0002	
				Lead-monoxide	1317-36-8	1	0.0002	
Proprietary Ingredients		1	0.0002					
3	Resistive Ink	Ink	0.017	Ruthenium(IV)oxide	12036-10-1	14.72	0.017	0.114
				Silver	7440-22-4	5.07	0.006	
				Palladium	7440-05-3	5.33	0.006	
				Diboron-trioxide	1303-86-2	2.12	0.002	
				Aluminum Oxide	1344-28-1	4.18	0.004	
				Lead-monoxide	1317-36-8	25.82	0.029	
				Silicon dioxide	7631-86-9	15.82	0.018	
				Calcium-oxide	1305-78-8	0.2	0.0002	
				Dibismuth-trioxide	1304-76-3	12.71	0.015	
Digadolinium-trioxide	12064-62-9	14.06	0.016					

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4	Element and Collector Ring Lube	Grease	0.005	Decanoic acid, mixed esters with heptanoic acid, octanoic acid	68130-53-0	54.4	0.018	0.034
				Lithium 12-hydroxystearate	7620-77-1	5.7	0.002	
				Isohexadecyl-isooctadecanoate	52006-45-8	33.7	0.011	
				Polyisobutylene	9003-27-4	6.2	0.002	
5	Terminals X 3	Copper	0.09	Copper	7440-50-8	100	0.603	0.603
		Plating	0.00008	Tin	7440-31-5	100	0.005	0.005
6	Contact Spring	Strip	0.05	Copper	7440-50-8	70	0.235	0.335
				Zinc	7440-66-6	30	0.101	
		Spacer Strip	0.04	Nickel	7440-44-0	18	0.048	0.268
				Copper	7440-50-8	55	0.147	
		Solder Inlay	0.0015	Zinc	7440-66-6	27	0.072	0.01
				Tin	7440-31-5	95	0.009	
		Wire	0.03	Silver	7440-22-4	5	0.0005	0.201
				Nickel	7440-02-0	18	0.036	
Copper	7440-50-8			65	0.131			
7	Rotor	PBT	2.032	Zinc	7440-66-6	17	0.034	13.616
				Glass	65997-17-3	30	4.085	
				Poly(butylene terephthalate)	30965-26-5	67	8.715	
				Antimony Compounds	7440-36-0	3	0.408	
8	O-Ring	Silicon	0.009	Antimony Oxide	1309-64-4	3	0.408	0.06
				Silicon	7440-21-3	100	0.06	
				Dimethylpolysiloxane	63148-62-9	85	0.029	
9	O-Ring Lube	Grease	0.005	Silicon dioxide	7631-86-9	9	0.003	0.034
				Proprietary Ingredients		6	0.002	
				Carbon	7440-44-0	0.15	0.0004	
10	Washer	Stainless Steel	0.035	Manganese	7439-96-5	2	0.005	0.235
				Silicon	7440-21-3	1	0.002	
				Chromium	7440-47-3	18	0.042	
				Nickel	7440-02-0	9	0.021	
				Iron	7439-89-6	69.85	0.164	

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11	Body	PBT	1.649	Glass	65997-17-3	30	3.315	11.049
				Poly(butylene terephthalate)	30965-26-5	67	7.072	
				Antimony Compounds	7440-36-0	3	0.331	
				Antimony Oxide	1309-64-4	3	0.331	
12	Bushing	Aluminum	1.2	Silicon	7440-21-3	0.7	0.056	8.041
				Iron	7439-89-6	0.34	0.027	
				Copper	7440-50-8	0.34	0.027	
				Manganese	7439-96-3	0.09	0.007	
				Magnesium	7439-98-5	0.9	0.072	
				Chromium	7440-47-3	0.09	0.007	
				Zinc	7440-66-6	0.05	0.004	
				Titanium	7440-32-6	0.02	0.002	
Aluminum	7429-90-5	bal	7.838					
13	Cover	PBT	0.409	Glass	65997-17-3	30	0.822	2.741
				Poly(butylene terephthalate)	30965-26-5	67	1.754	
				Antimony Compounds	7440-36-0	3	0.082	
				Antimony Oxide	1309-64-4	3	0.082	
14	Cover Hole Epoxy	Epoxy	3.5	resin(epoxy resin)		47	11.023	23.453
				pigment(Phthalocyanine in Bisphenol A and TiO <sub>2</sub> )		4	0.938	
				fillers(Silica + Aluminum Silicate )		49	11.492	
15	Cover and Terminal Epoxy	Epoxy	5.5	resin(epoxy resin and cresyl glycidyl ether)		46	16.953	36.855
				pigment(Phthalocyanine in Bisphenol A and TiO <sub>2</sub> )		4	1.474	
				fillers(Antimoy Oxide + Hydrated Alumina + Magnesium Aluminum Silicate + Alumimum slicate + Silica)		50	18.428	

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16	Washer	PTFE	0.007	Polytetrafluoroethylene	9002-84-0	15	0.007	0.047
				1-Dichloro-1-Fluoroethane	1717-00-6	85	0.039	
17	Washer	PTFE	0.0036	Polytetrafluoroethylene	9002-84-0	15	0.004	0.024
				1-Dichloro-1-Fluoroethane	1717-00-6	85	0.021	
18	Spring Washer	Copper Beryllium	0.031	Copper	7440-50-8	98.1	0.204	0.208
				Silicon	7440-21-3	0.2	0.0004	
				Beryllium	7440-41-7	1.5	0.003	
				Aluminum	7429-90-5	0.2	0.0004	
19	Spring Washer Lube	Grease	0.005	Siloxanes and Silicones, di-Me, di-Ph	68083-14-7	68.947	0.023	0.034
				Lithium Stearate	4485-12-5	25.368	0.009	
				Silane, dichlorodimethyl-, reaction products with silica	68611-44-9	4.789	0.002	
				Diphenylamine	122-39-4	0.895	0.0003	
		Total weight	14.922					

**This Document was updated on:** November 14, 2006

**Important remarks:**

1. It is the responsibility of the user to verify they are accessing the latest version.