


# MATERIAL DECLARATION SHEET

**BOURNS®**

Material #	6638S	
Product Line	Precisions	
Posted Date		
Compliance Date	Since Inception	
RoHS Compliant	Yes	

No.	Construction element	Material group	Material weight [g]	Materials	CAS If applicable	Average mass [%]	Sum [%]
1	Hex Nut	Stainless Steel Alloy		Carbon	7440-44-0	0.15%	
				Manganese	7439-96-5	1.00%	
				Silicon	7740-21-3	1.00%	
				Chromium	7740-47-3	11.5-13.5%	
				Nickel	7740-02-0	1.25-2.5%	
				Iron	7439-89-6	Balance	
2	Lock Washer	Stainless Steel Alloy	0.25	Carbon	7440-44-0	0.15%	
				Manganese	7439-96-5	1.00%	
				Silicon	7740-21-3	1.00%	
				Chromium	7740-47-3	11.5-13.5%	
				Nickel	7740-02-0	1.25-2.5%	
				Iron	7439-89-6	Balance	
3	Bearing Ball	Stainless Steel Alloy	0.3	Carbon	7440-44-0	0.69%	
				Manganese	7439-96-3	0.66%	
				Phosphorus	7723-14-0	0.007%	
				Sulfur	7704-34-9	0.005%	
				Silica	7440-21-3	0.24%	
				Chromium	7440-47-3	0.24%	
				Iron	7439-89-6	Remainder	
4	Collector Ring	Copper-Nickel Alloy		Copper	7440-50-8	63.5-66.5%	
				Zinc	7440-66-6	17.25%	
				Lead	7439-92-1	0.05%	
				Nickel	7440-02-0	11.0-13.0%	
				Iron	7439-89-6	0.25%	
				Manganese	7439-96-3	0.50%	
		Plating		Gold	7440-57-5	100%	

5	Teflon Shim	PTFE		Polytetrafluoroethylene	9002-84-0	15%	
				1-Dichloro-1-Fluoroethane	1717-00-6	85%	
6	Ink	Ink	0.0004	Phenol	108-95-2	<1%	
				Formaldehyde	50-00-0	<2%	
				Xylene	1330-20-7	30%	
				Amorphous Silica	7631-86-9	<3%	
				Carbon	7440-44-0	20%	
				Silver	7440-22-4	<42%	
7	Modified Ink	Ink	0.0004	Phenol	108-95-2	<1%	
				Formaldehyde	50-00-0	<2%	
				Xylene	1330-20-7	30%	
				Amorphous Silica	7631-86-9	<3%	
				Carbon	7440-44-0	20%	
8	Termination Ink	Ink	0.0005	Formaldehyde Polymer with Phenol & Methyl phenol	9039-25-2	<20%	
				2-Ethyl Acetate	124-17-4	<30%	
				Silver	7440-22-4	<50%	
9	Conductive Epoxy	BCC	0.0004	Biphenyl A Polyglycidyl Ether	25068-38-6	27%	
				Butyl Glydicyl Ether	2426-08-6	9%	
				Silver	7440-22-4	64%	
10	Cover	Dially Phthalate		Antimony Trioxide	1309-64-4	<5%	
				Aluminum Hydroxide	21645-51-2	<20%	
				Diallyl Phthalate	*****	Remainder	
				Glass Fiber	65997-17-3	<50%	
11	Terminal	Plating	0.012	Gold	7440-57-5	100%	
		Leaded Brass Alloy	0.125	Copper	7440-50-8	55-72%	
				Lead	7439-92-1	0-3.5%	
				Tin	7440-31-5	0-1%	
				Zinc	7440-66-6	35-45%	
12	Bushing/Lid	Aluminum Alloy		Aluminum	7429-90-5	93%	
				Iron	7439-89-6	5.50%	
				Lead	7439-92-1	0.70%	
				Magnesium	7439-98-5	0.40%	
				Sulfur	7704-34-9	0.40%	
				Zinc	7440-66-6	0.30%	
13	C-Ring	Stainless Steel Alloy	0.01	Iron	1309-37-1	85%	
				Chromium	7440-47-3	13%	

				Silicon	7440-21-3	1%	
				Manganese	7439-96-3	1%	
14	Collector Arm	Copper-Nickel Alloy		Copper	7440-50-8	63.5-66.5%	
				Zinc	7440-66-6	17.25%	
				Lead	7439-92-1	0.05%	
				Nickel	7440-02-0	11.0-13.0%	
				Iron	7439-89-6	0.25%	
				Manganese	7439-96-3	0.50%	
15	Contact Spring	Metal Alloy		Copper	7440-50-8	0-20%	
				Nickel	7440-02-0	0-20%	
				Palladium	5/3/7440	40-60%	
				Platinum	6/4/7440	0-20%	
				Silver	7440-22-4	20-40%	
16	Rotor	Polyphenylene Sulfide		Polyphenylene Sulfide	26125-40-6	100%	
17	Shaft	Stainless Steel Alloy	6.85	Nickel	7440-02-0	8.90	
				Chromium	7440-47-3	18.30	
				Iron	1309-37-1	Balance	
				Manganese	7439-96-5	1.80	
				Silicon	7440-21-3	1.00	
18	Washer	Stainless Steel Alloy	0.01	Iron	7439-89-6	70%	
				Chromium	7440-47-3	18%	
				Manganese	7439-96-3	2%	
				Nickel	7440-02-0	9%	
				Silicon	7440-21-3	1%	
19	Washer	Stainless Steel Alloy	0.01	Iron	7439-89-6	70%	
				Chromium	7440-47-3	18%	
				Manganese	7439-96-3	2%	
				Nickel	7440-02-0	9%	
				Silicon	7440-21-3	1%	
		Total weight					

**Note:**

Per [Product Update Memo SC2436](#), this MDS is under revision. The updated version will be posted soon.