


# MATERIAL DECLARATION & RoHS REPORT



Product Part Number	GMOV-20DxxxK			
Product Line	GMOV™ Series – 20mm Hybrid Protection Component			
MSL	1			
RoHS Compliant	Yes	Compliance Date	Feb - 2019	

No.	Construction Element (subpart)	Homogeneous Material	Material weight [g]	Homogeneous Material\	CASRN	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)	Third Party Lab Analysis
				Substances	if applicable				
1	Disk body with Silver electrode	Zinc Oxide Disc (HONGZHI)	2.42	Zinc Oxide	1314-13-2	89.00%	45.7282	51.38	<a href="#">Request Report</a>
				Bismuth trioxide	1304-76-3	3.50%	1.7983		
				Diantimony trioxide	1309-64-4	2.40%	1.23312		
				Cobalt oxide	1307-96-6	1.49%	0.765562		
				Silver	7440-22-4	2.00%	1.0276		
				Misc not to declare	----	1.61%	0.827218		
2	Coater	EPOXY RESIN (PELNOX)	1.11	Poly(Bisphenol A-co-epichlorohydrin) glycidyl end-capped	25036-25-3	49.50%	11.66715	23.57	<a href="#">Request Report</a>
				Silicon dioxide	60676-86-0	40.60%	9.56942		
				1,2,4-Benzenetricarboxylic anhydride	552-30-7	4.95%	1.166715		
				Titanium dioxide	13463-67-7	4.95%	1.166715		
3	Lead Wire	Tin-plated Copper Wire (HUIHUA)	0.67	Copper	7440-50-8	95.00%	13.5185	14.23	<a href="#">Request Report</a>
				Tin	7440-31-5	5.00%	0.7115		
4	Solder	Soldering Bar (DAMAI)	0.05	Tin	7440-31-5	97.50%	1.0335	1.06	<a href="#">Request Report</a>
				Silver	7440-22-4	2.00%	0.0212		
				Copper	7440-50-8	0.50%	0.0053		

5	Solder	Solder Paste (HUADAKANG)	0.01	Tin	7440-31-5	96.50%	0.20265	0.21	<a href="#">Request Report</a>
				Silver	7440-22-4	3.00%	0.0063		
				Copper	7440-50-8	0.5%	0.00105		
6	Lateral Electrodes	Tin plated Alloy 42	0.31	Iron	7439-89-6	55.7	3.66506	6.58	<a href="#">Request Report</a>
				Nickel	7440-02-0	41.8	2.75044		
				Tin	7440-31-5	2.5	0.1645		
7	Metallized Ceramic	Ceramic	0.10	Aluminum oxide	1344-28-1	91.37	1.937044	2.12	<a href="#">Request Report</a>
		Metallization		Silicon dioxide	7631-86-9	4.81	0.101972		
				Tungsten	7440-33-7	3.01	0.063812		
				Nickel	7440-02-0	0.81	0.017172		
8	Brazing material	Cusil™	0.03	Silver	7440-22-4	72.00	0.4608	0.64	<a href="#">Request Report</a>
				Copper	7440-50-8	28.00	0.1792		
9	Filler material	Gas	<0.01	Argon	7440-37-1	100	0.2100	0.21	<a href="#">Request Report</a>
TOTAL			<b>4.71</b>						

**This Document was updated on: March, 2019**

**Important remarks:**

1. It is the responsibility of the user to verify they are accessing the latest version.
2. Presented data corresponds to value 20D171K , weight may change depending on GMOV value and size configuration.