

# MATERIAL DECLARATION SHEET



Material Number	1280-4S series			
Product Line	SPD			
Compliance Date	Mar 2025			
RoHS Compliant	Yes	MSL	1	

NO	Construction Element (subpart)	Homogeneous Materials	Material weight [g]	Homogeneous Material	CASRN	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt · (%)
				Substances				
1	Varistor	Ceramic	137.2000	Zinc oxide	1314-13-2	99.000%	28.433%	28.720%
				Bismuth oxide	1304-76-3	0.200%	0.057%	
				Cobalt oxide	1308-04-9	0.200%	0.057%	
				Antimony oxide	1332-81-6	0.200%	0.057%	
				Manganese oxide	1317-34-6	0.100%	0.029%	
				Titanium oxide	13463-67-7	0.050%	0.014%	
				Boron oxide	1303-86-2	0.100%	0.029%	
				Chromium Oxide	1118-57-3	0.100%	0.029%	
				Silver nitrate	7761-88-8	0.050%	0.014%	
		Termination	4.4400	Silver	7440-22-4	100.000%	0.929%	0.929%
		Encapsulating material	8.8000	Glycidyl terminated bisphenol A epoxy chloropropane copolymer	25036-25-3	45.700%	0.842%	1.842%
				Silica	60676-86-0	31.200%	0.575%	
				Titanium dioxide	13463-67-7	2.800%	0.052%	
				Trimellitic anhydride	552-30-7	3.300%	0.061%	
Basic copper carbonate	12069-69-1			3.500%	0.064%			
Zirconium silicate	10101-52-7			7.000%	0.129%			
Misc not to declare		---		6.500%	0.120%			

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		Terminal	28.7712	Copper	7440-50-8	99.970%	6.021%	6.023%
				Traces not to declare	---	0.030%	0.002%	
		Nickel plate	0.0144	Nickel	7440-22-40	100.000%	0.003%	
		Silver plate	0.0144	Silver	7440-02-0	100.000%	0.003%	0.003%
2	Plastic shell	PBT	157.8000	PBT resin	26062-94-2	55.000%	18.168%	33.032%
				Halogen flame retardant	68928-70-1	13.000%	4.294%	
				Antimony oxide	1309-64-4	5.000%	1.652%	
				Glass fiber	65997-17-3	20.000%	6.606%	
				Misc not to declare	---	7.000%	2.312%	
3	Spring	Spring	1.2000	Iron	7439-89-6	98.000%	0.246%	0.251%
				Manganese	7439-96-5	0.650%	0.002%	
				Carbon	7440-44-0	0.650%	0.002%	
				Silicon	7440-21-3	0.200%	0.001%	
				Misc not to declare	---	0.500%	0.001%	
4	Switch	PPA	5.6000	Modified hexanediamide terephthalate	25776-72-1	65.000%	0.762%	1.172%
				Glass fiber	65997-17-3	32.000%	0.375%	
				Processing aids	1333-86-4	3.000%	0.035%	
		SUS304	0.4000	Iron	7439-89-6	70.000%	0.059%	0.084%
				Nickel	7440-02-0	10.000%	0.008%	
				Chromium	7440-47-3	18.000%	0.015%	
				Manganese	7439-96-5	2.000%	0.002%	
		SUS301	0.4000	Iron	7439-89-6	72.000%	0.060%	0.084%
				Nickel	7440-02-0	8.000%	0.007%	
				Chromium	7440-47-3	18.000%	0.015%	
				Manganese	7439-96-5	2.000%	0.002%	
		Copper part	0.0800	Copper	7440-50-8	61.500%	0.010%	0.017%
Zinc	7440-66-6			38.465%	0.006%			
Phosphorus	7723-14-0			0.006%	0.000%			

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				Lead	7439-92-1	0.005%	0.000%	
				Iron	7439-89-6	0.020%	0.000%	
				Misc not to declare	---	0.005%	0.000%	
5	Copper Electrode	Copper part	88.2000	Copper	7440-50-8	91.550%	16.903%	18.463%
				Tin	7440-31-5	8.000%	1.477%	
				Zinc	7440-66-6	0.300%	0.055%	
				Phosphorus	7723-14-0	0.150%	0.028%	
6	Low-temperature alloys	Alloys Solder	4.0000	Tin	7440-31-5	42.000%	0.352%	0.837%
				Bismuth	7440-69-9	58.000%	0.486%	
7	Screw	SUS304 Part	40.8000	Carbon	7440-44-0	0.070%	0.006%	8.541%
				Manganese	7439-96-5	1.200%	0.102%	
				Silicon	7440-21-3	0.700%	0.060%	
				Phosphorus	7723-14-0	0.020%	0.002%	
				Sulfur	7704-34-9	0.010%	0.001%	
				Nickel	7440-02-0	11.000%	0.939%	
				Chromium	7440-47-3	18.000%	1.537%	
				Iron	7439-89-6	69.000%	5.893%	
<b>Total</b>			<b>477.7200</b>					

**This Document was updated: Mar 2025**

**Important remarks:**

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