

MATERIAL DECLARATION SHEET



Material Number	1420A-series		
Product Line	SPD		
Compliance Date	Sep 2023		
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	if applicable			
1	Varistor	Ceramic	61.2	Zinc oxide	1314-13-2	99.00%	26.79%	27.06%
				Manganese oxide	1344-43-0	0.25%	0.07%	
				Nickel oxide	1313-99-1	0.25%	0.07%	
				Cobalt oxide	1307-96-6	0.25%	0.07%	
				Bismuth trioxide	1304-76-3	0.25%	0.07%	
		Termination	2	Silver	7440-22-4	100.00%	0.88%	0.88%
		Encapsulating material	4	Epoxy resin	25036-25-3	35.00%	0.62%	1.77%
				Phosphorus epoxy resin	300371-38-4	15.00%	0.27%	
				Acid anhydride	89-32-7	10%	0.18%	
				Laser marking agent	814-91-5	8%	0.14%	
				Silica	60676-86-0	29%	0.51%	
		Copper part	12.8	Copper	7440-50-8	91.55%	5.18%	5.66%
				Tin	7440-31-5	8.00%	0.45%	
				Zinc	7440-66-6	0.30%	0.02%	
Phosphorus	7723-14-0			0.15%	0.01%			
2	Plastic shell	Plastic part	85.2	PBT	63440-93-7	80.00%	30.13%	37.67%
				Glass fiber	65997-17-3	20.00%	7.53%	

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3	Spring	Spring	0.55	Iron	7439-89-6	98.00%	0.24%	0.24%
				Manganese	7439-96-5	0.65%	0.00%	
				Carbon	7440-44-0	0.65%	0.00%	
				Silica	7440-21-3	0.20%	0.00%	
				Misc not to declare	---	0.50%	0.00%	
4	Switch	Plastic shell	0.8	PPA	452072-22-9	70.00%	0.25%	0.35%
				Glass fiber	65997-17-3	30.00%	0.11%	
		Silver plated	0.06	Copper	7440-50-8	82.70%	0.02%	0.03%
				Nickel	7440-02-0	12.40%	0.00%	
				Silver	7440-22-4	4.90%	0.00%	
		SUS430	0.1	Carbon	7440-44-0	0.07%	0.00%	0.04%
				Manganese	7439-96-5	1.20%	0.00%	
				Silicon	7440-21-3	0.70%	0.00%	
				Phosphorus	7723-14-0	0.02%	0.00%	
				Sulfur	7704-34-9	0.01%	0.00%	
				Nickel	7440-02-0	11.00%	0.00%	
				Chromium	7440-47-3	18.00%	0.01%	
		Iron	7439-89-6	69.00%	0.03%			
Copper strip C2800	0.04	Copper	7440-50-8	82.70%	0.01%	0.02%		
		Nickel	7440-02-0	12.40%	0.00%			
		Silver	7440-22-4	4.90%	0.00%			
5	Copper Electrode	Copper part	48.65	Copper	7440-50-8	91.55%	19.69%	21.51%
				Tin	7440-31-5	8.00%	1.72%	
				Zinc	7440-66-6	0.30%	0.06%	
				Phosphorus	7723-14-0	0.15%	0.03%	
6	Low-temperature alloys	SnBi Solder	1	Tin	7440-31-5	42.00%	0.19%	0.44%
				Bismuth	7440-69-9	58.00%	0.26%	
7	Screw	SUS304	9.7	Carbon	7440-44-0	0.07%	0.00%	4.29%

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				Manganese	7439-96-5	1.20%	0.05%	
				Silicon	7440-21-3	0.70%	0.03%	
				Phosphorus	7723-14-0	0.02%	0.00%	
				Sulfur	7704-34-9	0.01%	0.00%	
				Nickel	7440-02-0	11.00%	0.47%	
				Chromium	7440-47-3	18.00%	0.77%	
				Iron	7439-89-6	69.00%	2.96%	
8	Ink Printing	Ink	0.1	Epoxy Resins	61788-97-4	60.00%	0.03%	-0.04%
				Carbon black	1333-86-4	35.00%	0.02%	
				Other additives	67763-03-5	5.00%	0.00%	
			Total			226.2		

This Document was updated on: Sep 2023

Important remarks:

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