

MATERIAL DECLARATION SHEET

BOURNS®

Material Number	RL181S series			
Product Line	Radial Inductor			
Compliance Date	2025/10/31			
RoHS Compliant	YES	MSL	1	

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	Core	Ferrite	2.23	Iron oxide (Fe2O3)	1309-37-1	52.0%	32.193	61.911
				Zinc oxide (ZnO)	1314-13-2	15.0%	9.287	
				Cupric oxide(CuO)	1317-38-0	17.0%	10.525	
				Nickel oxide (NiO)	1313-99-1	16.0%	9.906	
2	Lead Wire	CP Wire	0.1	Iron (Fe)	7439-89-6	76.0%	2.11	2.776
				Copper (Cu)	7740-50-8	20.0%	0.555	
				Tin (Sn)	7440-31-5	3.7%	0.103	
				Nickel (Ni)	7740-02-0	0.3%	0.008	
3	Wire	Copper (C11000)	0.76	Copper(Cu)	7440-50-8	99.95%	21.09	21.1
		Resin	0.04	Misc. ,not to declare	\	0.05%	0.01	1.11
				Polyurethane	9009-54-5	100.00%	1.11	
4	Adhesive A	Epoxy	0.1	Epoxy Resin	25068-38-6	60.6%	1.682	2.775
				Calcium carbonate	471-34-1	21.3%	0.591	
				Aluminium hydroxide	21645-51-2	16.0%	0.444	
				Carbon Black	1333-86-4	2.1%	0.058	
5	Adhesive B	Epoxy	0.05	Bisphenol A Epoxy Resin	25068-38-6	67.5%	0.937	1.388
				Poly urethane	51852-81-4	5.0%	0.069	
				Pigment Yellow 5	4106-67-6	2.0%	0.028	
				Silicon dioxide	14808-60-7	25.5%	0.354	
6	Adhesive C	Epoxy	0.2	Modified epoxy resin	25068-38-6	44.2%	2.455	5.553
				Epoxy thinners	68609-97-2	6.3%	0.351	

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				Magnesium hydroxide	1309-42-8	49.5%	2.747	2.776
		Epoxy	0.1	Modified amine curing agent	9046-10-0	95.0%	2.637	
				promoter	90-72-2	5.0%	0.139	
7	Spacer	PET	0.001	Polyethylene glycol terephthalate	25038-59-9	95.0%	0.026	0.0272
				Acrylic Resin	9003-01-4	4.0%	0.001	
				Silicon Dioxide(sio2)	14464-46-1	1.0%	0.0002	
8	Tube	RSFR-H	0.001	Ethylene-vinyl acetate copolymer	24937-78-8	50.0%	0.014	0.0279
				Magnesium hydroxide	1309-42-8	35.0%	0.0097	
				Phosphorus	7723-14-0	10.0%	0.0028	
				Pigment	/	5.0%	0.0014	
9	Solder bar	Tin	0.01	Tin (Sn)	7440-31-5	99.3%	0.276	0.2779
				Copper(Cu)	7440-50-8	0.7%	0.0019	
10	Ink	Ink	0.01	Cyclic isoprene modified phenol	68441-13-4	18.2%	0.051	0.278
				Titanium dioxide	13463-67-7	76.4%	0.212	
				Silica	112945-52-5	5.4%	0.015	
		Total weight	3.602					

This Document was updated on: 2025/10/31

Important remarks:

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