


MATERIAL DECLARATION SHEET



Material Number	CHV 2512-A			
Product Line	Safety Certified Thick-Film Type High-Voltage Automotive Chip Resistors			
Compliance Date	04/22/2019			
RoHS Compliant	Yes (Lead Exemption)	MSL	N/A	

No.	Construction Element(subpart)	Homogeneous Material	Material weight [mg]	Homogeneous Material\ Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Ceramic	Substrate	34.7435	Aluminum oxide	1344-28-1	96	83.689	87.175
				Silicon dioxide	14808-60-7	4	3.486	
				Magnesium oxide	1309-48-4			
2	Top conductor	Silver	0.6157	Silver	7440-22-4	100	1.545	1.545
3	Bottom conductor	Silver	0.3152	Silver	7440-22-4	100	0.791	0.791
4	Resistor	Ruthenium Oxide	0.3821	Glass	65997-18-4	55.7	0.534	0.959
				Lead-containing glass	7439-92-1	19.3	0.185	
				Ruthenium oxide	12036-10-1	25	0.24	

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5	First encapsulating	Glass	0.3685	Silica	14808-60-7	74	0.685	0.925
				Glass	65997-18-4	12	0.111	
				Aluminum oxide	1344-28-1	6	0.055	
				Chromium III oxide	1308-38-9	8	0.074	
6	Overcoat	Resin	0.8454	Resin	25036-25-3	100	2.121	2.121
7	Side conductor	Silver	0.8142	Silicon	7440-22-4	85	1.736	2.042
				Resin	9003-36-5	15	0.306	
8	Plating (Middle)	Nickel	0.6872	Nickel	7440-02-0	100	1.724	1.724
9	Plating (Outer)	Tin	1.0308	Tin	7440-31-5	100	2.586	2.586
10	Marking	Resin	0.0525	Resin	29690-82-2	70	0.092	0.132
				Titanium oxide	1317-80-2	30	0.04	
Total weight			39.8551					

This Document was updated on: 04/22/2019

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.
2. RoHS exemption: 7(c)-1 Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.