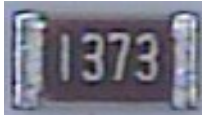


# MATERIAL DECLARATION SHEET



Material Number	CHV 0805-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	4.112	Aluminum oxide	1344-28-1	96	81.075	84.453
				Silicon dioxide	14808-60-7	4	3.378	
				Magnesium oxide	1309-48-4			
2	Top conductor	Silver	0.0817	Silver	7440-22-4	100	1.678	1.678
3	Bottom conductor	Silver	0.0482	Silver	7440-22-4	100	0.99	0.99
4	Resistor	Ruthenium Oxide	0.049	Glass	65997-18-4	55.7	0.56	1.006
				Lead-containing glass	7439-92-1	19.3	0.194	
				Ruthenium oxide	12036-10-1	25	0.252	

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5	First encapsulating	Glass	0.0467	Silica	14808-60-7	74	0.710	0.959
				Glass	65997-18-4	12	0.114	
				Aluminum oxide	1344-28-1	6	0.058	
				Chromium III oxide	1308-38-9	8	0.077	
6	Overcoat	Resin	0.1172	Resin	25036-25-3	100	2.407	2.407
7	Side conductor	Silver	0.1707	Silver	7440-22-4	85	2.98	3.506
				Resin	9003-36-5	15	0.526	
8	Plating (Middle)	Nickel	0.0925	Nickel	7440-02-0	100	1.90	1.90
9	Plating (Outer)	Tin	0.1388	Tin	7440-31-5	100	2.851	2.851
10	Marking	Resin	0.0122	Resin	29690-82-2	70	0.175	0.250
				Titanium oxide	1317-80-2	30	0.075	
Total weight			4.869					

**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.