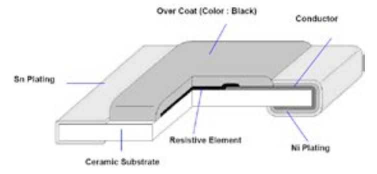
MATERIAL DECLARATION SHEET

Material Number	CR0201 Series			
Product Line	Thick Film Chip Resistors			
Compliance Date	04-01-2003			
RoHS Compliant	Yes	MSL	1	

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	Ceramic	0.140536	Aluminum oxide	1344-28-1	96%	78.78	82.06
				Silicon oxide	14808-60-7	4%	3.28	
2	Conductor Layer	Thick Film	0.0062	Silver	7440-22-4	96%	3.54	3.62
				Bismuth	7440-69-9	1%	0.02	
				Barium	7440-39-3	1%	0.02	
				Silicon	7440-21-3	1%	0.02	
				Boron	7440-42-8	1%	0.02	
3	Resistive Element	Thick Film	0.002774	Ruthenium oxide	12036-10-1	25%	0.41	1.62
				Silver	7440-22-4	40%	0.65	
				Palladium	7440-05-3	15%	0.24	
				Lead	7439-92-1	20%	0.32	
4	Over Coating	Epoxy	0.003425	Epoxy	29690-82-2	100%	2	2
5	End Terminal	NI-CR	0.000599	Nickel	7440-02-0	80%	0.28	0.35
				Chromium	7440-47-3	20%	0.07	
6	Ni Plating	Nickel	0.009368	Nickel	7440-02-0	100%	5.47	5.47
7	Sn Plating	Tin	0.008357	Tin	7440-31-5	100%	4.88	4.88
		Total weight	0.171259					

This Document was updated on: **2016-2-4**

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.
2. Resistive Element contains the Lead (Pb) which can be referred to RoHS Exemption 7(c)-I