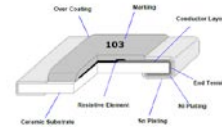


MATERIAL DECLARATION SHEET



| | | | |
|-----------------|---------------------------|-----|---|
| Material Number | CR0805 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 [g] | Homogeneous Material\ Substances | CASRN if applicable | Materials Mass % | Material Mass % of total unit wt. | Subpart mass of total wt. (%) |
|-----|--------------------------------|----------------------|---------------------|----------------------------------|---------------------|------------------|-----------------------------------|-------------------------------|
| 1 | Ceramic Substrate | Ceramic | 0.00382 | Aluminum oxide | 1344-28-1 | 96% | 85.56 | 89.13 |
| | | | | Silicon dioxide | 14808-60-7 | 4% | 3.57 | |
| 2 | Conductor Layer | Thick Film Conductor | 0.000083 | Silver | 7440-22-4 | 96% | 1.84 | 1.92 |
| | | | | 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 Resistor | 0.000043 | Ruthenium dioxide | 12036-10-1 | 25% | 0.25 | 1.01 |
| | | | | Silver | 7440-22-4 | 40% | 0.4 | |
| | | | | Palladium | 7440-05-3 | 15% | 0.15 | |
| | | | | Lead | 7439-92-1 | 20% | 0.2 | |
| 4 | Over Coating | Epoxy | 0.000067 | Epoxy | 29690-82-2 | 100% | 1.55 | 1.55 |
| 5 | Marking | Epoxy | 0.0000036 | Epoxy | 25085-99-8 | 100% | 0.08 | 0.08 |
| 6 | End Terminal | NI-CR | 0.0000034 | Nickel | 7440-02-0 | 80% | 0.06 | 0.08 |
| | | | | Chromium | 7440-47-3 | 20% | 0.02 | |
| 7 | Ni Plating | Nickel | 0.00014 | Nickel | 7440-02-0 | 100% | 3.29 | 3.29 |
| 8 | Sn Plating | Tin | 0.00013 | Tin | 7440-31-5 | 100% | 2.94 | 2.94 |
| | | | Total weight | 0.00429 | | | | |

This Document was updated on: **2016-2-5**

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.