

# MATERIAL DECLARATION SHEET

**BOURNS®**

|                 |                 |     |   |                                                                                     |
|-----------------|-----------------|-----|---|-------------------------------------------------------------------------------------|
| Material Number | DR331-513BE     |     |   |  |
| Product Line    | SMD Line Filter |     |   |                                                                                     |
| Compliance Date | 2025/11/24      |     |   |                                                                                     |
| 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              | 0.064               | Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) | 1309-37-1           | 63%              | 14.93                             | 23.7                          |
|     |                               |                      |                     | Nickel oxide (NiO)                           | 1313-99-1           | 12%              | 2.84                              |                               |
|     |                               |                      |                     | Zinc oxide (ZnO)                             | 1314-13-2           | 21%              | 4.98                              |                               |
|     |                               |                      |                     | Cupric oxide(CuO)                            | 1317-38-0           | 4%               | 0.95                              |                               |
| 2   | Wire                          | Copper (C11000)      | 0.0294              | Copper(Cu)                                   | 7440-50-8           | 99.95%           | 10.88                             | 10.885                        |
|     |                               |                      |                     | Misc. ,not to declare                        | \                   | 0.05%            | 0.005                             |                               |
|     |                               | Resin                | 0.0006              | Polyurethane                                 | 51852-81-4          | 77.5%            | 0.172                             | 0.222                         |
|     |                               |                      |                     | Polyamide Resin                              | 9009-54-5           | 22.5%            | 0.05                              |                               |
| 3   | Case                          | PM9630               | 0.15                | Phenol formaldehyde resin                    | 9003-35-4           | 35%              | 19.44                             | 55.56                         |
|     |                               |                      |                     | Glass Fiber                                  | 65997-17-3          | 55%              | 30.56                             |                               |
|     |                               |                      |                     | Kaolin, calcined                             | 92704-41-1          | 5%               | 2.78                              |                               |
|     |                               |                      |                     | Fatty acids, tallow,hydrogenated             | 61790-38-3          | 2.5%             | 1.39                              |                               |
|     |                               |                      |                     | carbon black                                 | 1333-86-4           | 2.5%             | 1.39                              |                               |
|     |                               | C5191                | 0.01                | Copper (Cu)                                  | 7440-50-8           | 92.99%           | 3.44                              | 3.701                         |
|     |                               |                      |                     | Iron(Fe)                                     | 7439-89-6           | 0.01%            | 0.001                             |                               |
|     |                               |                      |                     | Tin (Sn)                                     | 7440-31-5           | 7%               | 0.26                              |                               |

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|              |            | Plating | 0.002       | Tin (Sn)                | 7440-31-5  | 100%  | 0.59  | 0.59  |
|              |            |         |             | Nickel (Ni)             | 7440-02-0  | 100%  | 0.15  | 0.15  |
| 4            | Adhesive   | Epoxy   | 0.01        | Bisphenol A Epoxy Resin | 25068-38-6 | 64.9% | 2.4   | 3.702 |
|              |            |         |             | Epoxy thinning agent    | 68609-97-2 | 5.3%  | 0.196 |       |
|              |            |         |             | carbon black            | 1333-86-4  | 5.3%  | 0.196 |       |
|              |            |         |             | Aluminium hydroxide     | 21645-51-2 | 24.5% | 0.91  |       |
| 5            | Solder bar | Tin     | 0.002       | Tin (Sn)                | 7440-31-5  | 96.5% | 0.72  | 0.746 |
|              |            |         |             | Silver(Ag)              | 7440-22-4  | 3%    | 0.022 |       |
|              |            |         |             | Copper (Cu)             | 7440-50-8  | 0.5%  | 0.004 |       |
| 6            | Solder bar | Tin     | 0.001       | Tin (Sn)                | 7440-31-5  | 99%   | 0.37  | 0.374 |
|              |            |         |             | Silver(Ag)              | 7440-22-4  | 0.5%  | 0.002 |       |
|              |            |         |             | Copper(Cu)              | 7440-50-8  | 0.5%  | 0.002 |       |
| 7            | Varnish    | Varnish | 0.001       | Synthetic resin         | 63148-69-6 | 100%  | 0.37  | 0.37  |
| Total weight |            |         | <b>0.27</b> |                         |            |       |       |       |

This Document was updated on: 2025/11/24

Important remarks: It is the responsibility of the user to verify they are accessing the latest version.