

# Material Composition for Model 66 Trimmer

| Sub-component                                     | Material             | % of Total Mass | Substance Name                                 | CAS #        | Substance Mass (mg) | Special Classification                |
|---|----------------------|-----------------|--|--------------|---------------------|---------------------------------------|
| Housing   | PBT blend            | 41.60%          | PBT  | 26062-94-2   | 2.96E-01            | Fire retardant                        |
|   |                      |                 | Fiberglass                                     | 65997-17-3   | 7.90E-02            |                                       |
|   |                      |                 | SbO  | 1309-64-4    | 2.00E-02            |                                       |
| Shaft   | Brass                | 9.20%           | Cu   | 7440-50-8    | 5.40E-02            | RoHS exemption 6(c)<br>exposed nickel |
|   | Cu plating           | 0.02%           | Zn   | 7440-66-6    | 3.10E-02            |                                       |
|   |                      |                 | Pb in brass                                    | 7439-92-1    | 3.00E-03            |                                       |
|   |                      |                 | Cu   | 7440-50-8    | 2.05E-04            |                                       |
| Ni plating  | 0.20%                | Ni              | 7440-02-0                                      | 1.84E-03     |                     |                                       |
| Rotor   | PTFE                 | 7.90%           | PTFE   | 009002-84-0  | 7.50E-02            |                                       |
| Contact   | Cu alloy wire        | 0.14%           | Cu   | 7440-50-8    | 7.15E-04            |                                       |
|   |                      |                 | Zn   | 7440-66-6    | 3.51E-04            |                                       |
|   |                      |                 | Ni   | 7440-02-0    | 2.34E-04            |                                       |
|   | Nickel alloy bar     | 0.11%           | Cu   | 7440-50-8    | 5.00E-07            |                                       |
|   |                      |                 | Ni   | 7440-02-0    | 8.46E-04            |                                       |
|   |                      |                 | C  | 7440-44-0    | 6.00E-07            |                                       |
|   |                      |                 | Mn   | 7439-96-5    | 2.50E-06            |                                       |
|   |                      |                 | Fe   | 7439-89-6    | 1.50E-04            |                                       |
|   |                      |                 | S  | 7704-34-9    | 5.00E-08            |                                       |
|   |                      |                 | Si   | 7440-21-3    | 5.00E-07            |                                       |
| Terminals   | Cu wire              | 10.30%          | Cu   | 7440-50-8    | 9.80E-02            |                                       |
|   | Sn plating           | 0.00%           | Sn   | 7440-31-5    | 1.71E-05            |                                       |
| Potting   | Epoxy                | 8.80%           | SiO <sub>2</sub> , amorphous                   | 7631-86-9    | 4.00E-03            | BPA                                   |
|   |                      |                 | modified aliphatic polyamine                   | trade secret | 1.70E-02            |                                       |
|   |                      |                 | hydantoin epoxy resin                          | 15336-82-0   | 4.00E-03            |                                       |
|   |                      |                 | epichlorohydrin / polyglycol epoxy resin       | 26142-30-3   | 4.00E-03            |                                       |
|   |                      |                 | epichlorohydrin / bisphenol A epoxy resin      | unknown      | 5.00E-02            |                                       |
| cycloaliphatic epoxy resin                        | 2386-87-0            | 4.00E-03        |  |              |                     |                                       |
| Substrate   | Alumina              | 21.60%          | Al <sub>2</sub> O <sub>3</sub>                 | 1344-28-1    | 1.96E-01            |                                       |
|   |                      |                 | SiO <sub>2</sub> , amorphous                   | 7631-86-9    | 2.00E-03            |                                       |
|   |                      |                 | TiO <sub>2</sub>                               | 13463-67-7   | 0.001               |                                       |
|   |                      |                 | FeO <sub>2</sub>                               | 1345-25-1    | 0.001               |                                       |
|   |                      |                 | MnO <sub>2</sub>                               | 1313-13-9    | 0.002               |                                       |
|   |                      |                 | MgO  | 1309-48-4    | 0.001               |                                       |
|   |                      |                 | CaO  | 1305-78-8    | 0.001               |                                       |
| Conductor   | AgPd thick film      | 0.08%           | Al <sub>2</sub> O <sub>3</sub>                 | 1344-28-1    | 0.000               | RoHS exemption 34                     |
|   |                      |                 | SiO <sub>2</sub> , amorphous                   | 7631-86-9    | 0.000               |                                       |
|   |                      |                 | TiO <sub>2</sub>                               | 13463-67-7   | 0.000               |                                       |
|   |                      |                 | PbO  | 1317-36-8    | 0.000               |                                       |
|   |                      |                 | ZnO  | 1314-13-2    | 0.000               |                                       |
|   |                      |                 | B <sub>2</sub> O <sub>3</sub>                  | 1303-86-2    | 0.000               |                                       |
|   |                      |                 | ZrO <sub>2</sub>                               | 1314-23-4    | 0.000               |                                       |
|   |                      |                 | BaO  | 1304-28-5    | 0.000               |                                       |
|   |                      |                 | Ag   | 7440-22-4    | 0.001               |                                       |
| Pd  | 2,023,568.00         | 0.000           |  |              |                     |                                       |
| Resistor  | Ruthenate thick film | 0.11%           | Al <sub>2</sub> O <sub>3</sub>                 | 1344-28-1    | 0.000               | RoHS exemption 34                     |
|   |                      |                 | SiO <sub>2</sub> , amorphous                   | 7631-86-9    | 0.000               |                                       |
|   |                      |                 | TiO <sub>2</sub>                               | 13463-67-7   | 0.000               |                                       |
|   |                      |                 | MnO <sub>2</sub>                               | 1313-13-9    | 0.000               |                                       |
|   |                      |                 | PbO  | 1317-36-8    | 0.000               |                                       |
|   |                      |                 | ZnO  | 1314-13-2    | 0.000               |                                       |
|   |                      |                 | B <sub>2</sub> O <sub>3</sub>                  | 1303-86-2    | 0.000               |                                       |
|   |                      |                 | ZrO <sub>2</sub>                               | 1314-23-4    | 0.000               |                                       |
|   |                      |                 | BaO  | 1304-28-5    | 0.000               |                                       |
|   |                      |                 | Ag   | 7440-22-4    | 0.000               |                                       |
|   |                      |                 | Pd   | 2,023,568.00 | 0.000               |                                       |
|   |                      |                 | Steatite                                       | 14807-96-6   | 0.000               |                                       |
|   |                      |                 | Bi <sub>2</sub> Ru <sub>2</sub> O <sub>6</sub> | unknown      | 0.000               |                                       |
| Pb <sub>2</sub> Ru <sub>2</sub> O <sub>6</sub> +x | unknown              | 0.000           |  |              |                     |                                       |
| RuO <sub>2</sub>                                  | 12036-10-1           | 0.000           |  |              |                     |                                       |
| <b>Total mass</b>                                 |                      |                 |  |              | <b>0.949 mg</b>     |                                       |