

# Material Composition for P170 Potentiometer

| Sub-component | Material           | % of Total Mass | Substance Name                 | CAS #      | Substance Mass (mg) | Special Classification |
|---------------|--------------------|-----------------|--------------------------------|------------|---------------------|------------------------|
| Slider        | C5210 Copper       | 1.30%           | Cu                             | 7440-50-8  | 59.61               | N/A                    |
|               |                    |                 | Fe                             | 7439-89-6  | 0.03                |                        |
|               |                    |                 | Sn                             | 7440-31-5  | 5.20                |                        |
|               |                    |                 | Zn                             | 7440-66-6  | 0.13                |                        |
|               |                    |                 | P                              | 7723-14-0  | 0.03                |                        |
|               | Silver plating     | 0.10%           | Ag                             | 506-64-9   | 5.00                |                        |
| Shaft         | A2011 Aluminum     | 24.00%          | Fe                             | 7439-89-6  | 8.40                |                        |
|               |                    |                 | Si                             | 7440-21-3  | 4.80                |                        |
|               |                    |                 | Cu                             | 7440-50-8  | 60.00               |                        |
|               |                    |                 | Mn                             | 7439-96-5  | 0.60                |                        |
|               |                    |                 | Mg                             | 7439-95-4  | 6.00                |                        |
|               |                    |                 | Al                             | 7429-90-5  | 1,114.20            |                        |
|               |                    |                 | Bi                             | 7440-69-9  | 2.40                |                        |
|               |                    |                 | Zn                             | 7440-66-6  | 3.60                |                        |
| Element       | Phenolic Laminate  | 3.40%           | B.K.P                          | 65996-61-4 | 76.50               |                        |
|               | Carbon Plasm       | 0.28%           | Phenolic Resin                 | 9003-35-4  | 93.50               |                        |
|               |                    |                 | Methanol                       | 67-56-1    | 2.10                |                        |
|               |                    |                 | Carbom Black                   | 1333-86-4  | 9.80                |                        |
|               |                    |                 | Talc                           | 14807-96-6 | 0.56                |                        |
|               |                    |                 | Polymer with xylene 8 phend    | 29601-89-0 | 0.42                |                        |
|               | Silver Plasm       | 0.12%           | Monobutyl Ether                | 112-34-5   | 0.42                |                        |
|               |                    |                 | Silver                         | 7440-22-4  | 0.70                |                        |
|               |                    |                 | Phenolic resin                 | 9039-25-2  | 1.17                |                        |
|               |                    |                 | Silver                         | 7440-22-4  | 3.00                |                        |
|               |                    |                 | Glass powder                   | 65997-17-3 | 0.03                |                        |
|               |                    |                 | Graphite                       | 7782-42-5  | 0.30                |                        |
|               |                    |                 | Molybdeum disulfide            | 1317-33-5  | 0.30                |                        |
|               |                    |                 | Diethylene glycol monveihyl et | 111-90-0   | 1.20                |                        |
| Base          | Bakelite           | 2.72%           | Wood Flour                     | 9004-34-6  | 32.64               |                        |
|               |                    |                 | Calcium Carbonate              | 471-34-1   | 29.92               |                        |
|               |                    |                 | Hexamine                       | 100-97-0   | 5.44                |                        |
|               |                    |                 | Phenolic Resin                 | 9003-35-4  | 63.92               |                        |
|               |                    |                 | Black Pigment                  | 1333-86-4  | 4.08                |                        |
| Case          | SPCC               | 26.80%          | C                              | 7440-44-0  | 2.68                |                        |
|               |                    |                 | Mn                             | 7439-96-5  | 2.68                |                        |
|               |                    |                 | P                              | 7723-14-0  | 0.54                |                        |
|               |                    |                 | S                              | 7704-34-9  | 0.54                |                        |
|               |                    |                 | Si                             | 7440-21-3  | 4.02                |                        |
|               |                    |                 | Al                             | 7429-90-5  | 0.59                |                        |
|               |                    |                 | Fe                             | 7439-89-6  | 1,328.96            |                        |
|               |                    |                 | Sn                             | 7440-31-5  | 5.00                |                        |
|               | tin plating        | 0.10%           |                                |            |                     |                        |
| Rivet         | Red Copper         | 2.12%           | Cu                             | 7440-50-8  | 104.95              |                        |
|               |                    |                 | Fe                             | 7439-89-6  | 0.01                |                        |
|               |                    |                 | Zn                             | 7440-66-6  | 1.04                |                        |
| Center slider | C5210 Copper       | 3.84%           | Cu                             | 7440-50-8  | 176.08              |                        |
|               |                    |                 | Fe                             | 7439-89-6  | 0.08                |                        |
|               |                    |                 | Sn                             | 7440-31-5  | 15.36               |                        |
|               |                    |                 | Zn                             | 7440-66-6  | 0.38                |                        |
|               |                    |                 | P                              | 7723-14-0  | 0.10                |                        |
|               | Silver plating     | 0.12%           | Ag                             | 506-64-9   | 6.00                |                        |
| STOP PLATE    | POM                | 0.68%           | ACETAL POLYMER                 | 002-81-7   | 33.32               |                        |
|               |                    |                 | STABILIZER                     | 70624-18-9 | 0.68                |                        |
| E Terminal    | SPCC               | 3.82%           | C                              | 7440-44-0  | 0.38                |                        |
|               |                    |                 | Mn                             | 7439-96-5  | 0.38                |                        |
|               |                    |                 | P                              | 7723-14-0  | 0.08                |                        |
|               |                    |                 | S                              | 7704-34-9  | 0.08                |                        |
|               |                    |                 | Si                             | 7440-21-3  | 0.57                |                        |
|               |                    |                 | Al                             | 7429-90-5  | 0.08                |                        |
|               |                    |                 | Fe                             | 7439-89-6  | 189.43              |                        |
|               |                    |                 | Sn                             | 7440-31-5  | 2.00                |                        |
|               | Luster Tin Plating | 0.04%           |                                |            |                     |                        |
| Shaft Set     | Zinc Alloy         | 28.52%          | Al                             | 7429-90-5  | 57.04               |                        |
|               |                    |                 | Cu                             | 7440-50-8  | 7.13                |                        |
|               |                    |                 | Mg                             | 7439-95-4  | 0.71                |                        |
|               |                    |                 | Fe                             | 7439-89-6  | 0.14                |                        |
|               |                    |                 | Sn                             | 7440-31-5  | 0.14                |                        |
|               |                    |                 | Zn                             | 7440-66-6  | 1,360.83            |                        |
| N Terminal    | SPCC               | 1.99%           | C                              | 7440-44-0  | 0.20                |                        |
|               |                    |                 | Mn                             | 7439-96-5  | 0.20                |                        |
|               |                    |                 | P                              | 7723-14-0  | 0.04                |                        |
|               |                    |                 | S                              | 7704-34-9  | 0.04                |                        |
|               |                    |                 | Si                             | 7440-21-3  | 0.30                |                        |
|               |                    |                 | Al                             | 7429-90-5  | 0.04                |                        |
|               |                    |                 | Fe                             | 7439-89-6  | 98.48               |                        |
|               |                    |                 | Sn                             | 7440-31-5  | 0.70                |                        |
|               | Luster Tin Plating | 0.01%           |                                |            |                     |                        |
| Shaft Oil     | Base oil+Addition  | 0.04%           | Polyisobutylene                | 9003-27-4  | 1.20                |                        |
|               |                    |                 | PAO                            | 68037-01-4 | 0.70                |                        |
|               |                    |                 | Fumed Sitica                   | 68611-44-9 | 0.10                |                        |

Total mass 5,000.00 mg