


MATERIAL DECLARATION SHEET



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|-----------------|-------------------|-----|-----|---|
| Material Number | 51-L CP | | |  |
| Product Line | Panel Controls | | | |
| Compliance Date | December 31, 2005 | | | |
| RoHS Compliant | Yes | MSL | N/A | |

| 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 | Substrate | Ceramic | 0.3 | Aluminum Oxide | 1344-28-1 | 95 | 2.698 | 2.840 |
| | | | | Silicon Oxide | 1344-28-1 | 3 | 0.0852 | |
| | | | | Magnesium Oxide | 7309-48-4 | 1 | 0.0284 | |
| | | | | Calcium Oxide | 1305-78-8 | 1 | 0.0284 | |
| 2 | Conductive Ink | Ink | 0.003 | Silver | 7440-22-4 | 93.3 | 0.026124 | 0.028 |
| | | | | Palladium | 7440-05-3 | 3.1 | 0.000868 | |
| | | | | Dibismuth-trioxide | 1304-76-3 | 2.4 | 0.000672 | |
| | | | | Copper oxide | 1317-39-1 | 1.2 | 0.000336 | |
| 3 | Resistive Ink | Ink | 0.010 | Phenolic resin | 9039-25-2 | 67 | 0.06298 | 0.094 |
| | | | | DAIP resin | 1087-21-4 | 6 | 0.00564 | |
| | | | | Carbon black | 1333-86-4 | 7 | 0.000658 | |
| | | | | Graphite | 7782-42-5 | 4 | 0.00376 | |
| 4 | Terminal | Phosphor bronze | 0.152 | Copper | 7440-50-8 | 94.8 | 1.364172 | 1.439 |
| | | | | Tin | 7440-31-5 | 5 | 0.07195 | |
| | | | | Phosphorus | 7723-14-0 | 0.2 | 0.002878 | |
| | | Plating | 0.0009 | Tin | 7440-31-5 | 100 | 0.009 | 0.009 |
| 5 | Shaft | Brass | 6.85 | Copper | 7440-50-8 | 61.5 | 39.88398 | 64.852 |
| | | | | Zinc | 7440-66-6 | 35.5 | 23.02246 | |
| | | | | Lead | 7439-92-1 | 3 | 1.94556 | |
| | | Plating | 0.6256 | Nickel | 7440-02-0 | 100 | 5.923 | 5.923 |

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|---------|----------------|-----------------|-----------|------------------------------|--------------|-------|-----------|-------|
| 6 | Housing | PBT | 0.659 | Glass | 65997-17-3 | 30 | 1.872 | 6.240 |
| | | | | Poly(butylene terephthalate) | 30965-26-5 | 54.8 | 3.41952 | |
| | | | | Antimony Oxide | 1309-64-4 | 4 | 0.02496 | |
| | | | | Brominated flame retardant | Trade secret | 11 | 0.6864 | |
| | | | | Copper phthalocyanine | 147-14-8 | 0.2 | 0.01248 | |
| 7 | Bushing | Aluminum | 1.036 | Aluminum | 7429-90-5 | 93.7 | 9.190096 | 9.808 |
| | | | | Copper | 7440-50-8 | 5.5 | 0.53944 | |
| | | | | Bismuth | 7440-69-9 | 0.4 | 0.039232 | |
| | | | | Lead | 7439-92-1 | 0.4 | 0.039232 | |
| | | Plating | 0.0032 | Nickel | 7440-02-0 | 100 | 0.030 | 0.030 |
| 8 | Rotor | Nylon | 0.1757 | Nylon | 32131-17-2 | 66 | 1.09758 | 1.663 |
| | | | | Glass | 35997-17-3 | 32 | 0.53216 | |
| | | | | Molybdenum disulfide | 1317-33-5 | 2 | 0.03326 | |
| 9 | Contact Spring | Nickel Silver | 0.029 | Copper | 7440-50-8 | 70 | 0.1925 | 0.275 |
| | | | | Nickel | 7440-02-0 | 10 | 0.0275 | |
| | | | | Lead | 7439-92-1 | 1 | 0.00275 | |
| | | | | Zinc | 7440-66-6 | 19 | 0.05225 | |
| 10 | Bracket | Stainless Steel | 0.3468 | Carbon | 7440-44-0 | 0.15 | 0.0049245 | 3.283 |
| | | | | Manganese | 7439-96-5 | 2 | 0.06566 | |
| | | | | Iron | 7439-89-6 | 72.85 | 2.3916655 | |
| | | | | Silicon | 7440-21-3 | 1 | 0.03283 | |
| | | | | Nickel | 7440-02-0 | 7 | 0.22981 | |
| | | Chromium | 7440-47-3 | 17 | 0.55811 | | | |
| Plating | 0.0032 | Tin | 7440-31-5 | 100 | 0.030 | 0.030 | | |
| 11 | Rear Cover | PBT | 0.2107 | Glass | 65997-17-3 | 30 | 0.5985 | 1.995 |
| | | | | Poly(butylene terephthalate) | 30965-26-5 | 54.8 | 1.09326 | |
| | | | | Antimony Oxide | 1309-64-4 | 4 | 0.0798 | |
| | | | | Brominated flame retardant | Trade secret | 11 | 0.21945 | |
| | | | | Copper phthalocyanine | 147-14-8 | 0.2 | 0.00399 | |
| 12 | Lube | Grease | 0.0015 | Fluorosilicone | 63148-56-1 | 100 | 0.014 | 0.014 |
| 13 | Marking Ink | Ink | 0.003 | Epoxy Resin | 25068-38-6 | 100 | 0.028 | 0.028 |
| 14 | O Ring | Silicon | 0.025 | Silicon | 7440-21-3 | 100 | 0.237 | 0.237 |

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|----|-------|--------------|---------|----------------------------|------------|----|---------|-------|
| 15 | Epoxy | Epoxy | 0.039 | Epoxy Resin | 25085-99-8 | 51 | 0.18819 | 0.369 |
| | | | | Silicon | 7440-21-3 | 34 | 0.12546 | |
| | | | | Kaolin clay | 1332-58-7 | 15 | 0.05535 | |
| 16 | Epoxy | Epoxy | 0.089 | Epoxy Resin | 25085-99-8 | 49 | 0.41307 | 0.843 |
| | | | | Silicon Dioxide | 7440-21-3 | 11 | 0.09273 | |
| | | | | Magnesium alumino silicate | 1302-88-1 | 9 | 0.07587 | |
| | | | | Antimony Trioxide | 1309-64-4 | 11 | 0.09273 | |
| | | | | Aluminum oxide | 1344-28-1 | 11 | 0.09273 | |
| | | | | Kaolin clay | 1322-58-7 | 9 | 0.07587 | |
| | | Total weight | 10.5626 | | | | | |

This Document was updated on: February 23, 2015

1. It is the responsibility of the user to verify they are accessing the latest version.
2. * Oxides are melted together to form a glass matrix. Although reported as individual materials for disclosure purposes, the individual oxides are no longer present but part of the glass matrix.
3. RoHS exemptions used: 6b, 6c, 7c-l