

**Material Data Declaration Sheet**

**ECS INC. INTERNATIONAL**

|                      |                                   |   |
|----------------------|-----------------------------------|---|
| Supplier Part Number | ECS-3225MV Series                 |   |
| Product Description  | 3.2x2.5 SMD Multi-Volt Oscillator |   |
| Product Revision     |                                   |   |
| Product Total Weight | 28.00mg/pcs                       |   |
| Contact Information  | Company                           | ECS INC. INTERNATIONAL                    |
|                      | Contact Name                      | AJ Anderson                               |
|                      | Address                           | 15351 W. 109th Street<br>Lenexa, KS 66219 |
|                      | Phone Number                      | (913) 782-7787                            |



| Homogenous Component/ Subcomponent | Homogenous Component/ Subcomponent Weight (mg) | Substance                                     | CAS number | Substance Weight (mg) | (If Available) (Substance Weight/Total Homogenous Component or Subcomponent Weight*1000000) | Purpose/Location   |
|------------------------------------|--|---|------------|-----------------------|---|--------------------|
| OSC PKG                            | 20.0000  | Alumina-Al <sub>2</sub> O <sub>3</sub>        | 1344-28-1  | 13.8800               | 694000  | Ceramic            |
|                                    |  | Silicon dioxide SiO <sub>2</sub>              | 7631-86-9  | 0.4600                | 23000   | Ceramic            |
|                                    |  | Magnesia-MgO                                  | 1309-48-4  | 0.0800                | 4000  | Ceramic            |
|                                    |  | Calcia-CaO                                    | 1305-78-8  | 0.0800                | 4000  | Ceramic            |
|                                    |  | Chromium oxide-Cr <sub>2</sub> O <sub>3</sub> | 1308-38-9  | 0.8400                | 42000   | Ceramic            |
|                                    |  | Tungsten-W                                    | 7440-33-7  | 1.4200                | 71000   | Electric conductor |
|                                    |  | Molybdenum-Mo                                 | 7439-98-7  | 0.0400                | 2000  | Electric conductor |
|                                    |  | Silver-Ag                                     | 7440-22-4  | 0.3000                | 15000   | Brazing material   |
|                                    |  | Copper-Cu                                     | 7440-50-8  | 0.1200                | 6000  | Brazing material   |
|                                    |  | Iron-Fe                                       | 7439-89-6  | 1.2000                | 60000   | Kovar ring         |
|                                    |  | Nickel-Ni                                     | 7440-02-0  | 0.6600                | 33000   | Kovar ring         |
|                                    |  | Cobalt-Co                                     | 7440-48-4  | 0.3800                | 19000   | Kovar ring         |
|                                    |  | Nickel-Ni                                     | 7440-02-0  | 0.2200                | 11000   | Ni plating         |
| Cobalt-Co                          | 7440-48-4                                      | 0.1800  | 9000       | Ni plating            |   |                    |
| Gold-Au                            | 7440-57-5                                      | 0.1400  | 7000       | Au plating            |   |                    |
| LID                                | 1.0000   | Iron-Fe                                       | 7439-89-6  | 0.5375                | 537500  | Alloy              |
|                                    |  | Nickel-Ni                                     | 7440-02-0  | 0.2949                | 294900  | Alloy              |
|                                    |  | Cobalt-Co                                     | 7440-48-4  | 0.1676                | 167600  | Alloy              |
| Blank                              | 1.5000   | Silica-SiO <sub>2</sub>                       | 14808-60-7 | 1.5000                | 1000000   | Quartz crystal     |
| Silver                             | 0.5000   | Silver-Ag                                     | 7440-22-4  | 0.5000                | 1000000   | Electrode          |
| Epoxy                              | 0.5000   | Silver-Ag                                     | 7440-22-4  | 0.4250                | 850000  | Connect            |
|                                    |  | Silicon-Si                                    | 7440-21-3  | 0.0750                | 150000  | Support            |
| Gold Wire                          | 4.2800   | Gold-Au                                       | 7440-57-5  | 4.2800                | 1000000   | Connect            |
| IC                                 | 0.2200   | Silicon-Si                                    | 7440-21-3  | 0.2200                | 1000000   |                    |