



**Statement of Materials, Construction**

| LEAD-FREE -- 20L-PDIP -- TABLE OF MATERIAL DECLARATION |                     |                  |                          |   |             |                      |                                  |                                  |
|--|---------------------|------------------|--------------------------|---|-------------|----------------------|----------------------------------|----------------------------------|
| No.  | Component Name      | Material Name    | Component Weight (grams) | Materials Analysis (Element / Compound) | CAS Number  | Material Mass (Gram) | Material Weight % (of Total Pkg) | Material Weight % (of Component) |
| 1  | Leadframe           | Copper Alloy     | 0.45460                  | Cu                                      | 7440-50-8   | 0.44233              | 31.04243                         | 97.3                             |
|  |                     |                  |                          | Fe                                      | 7439-89-6   | 0.01068              | 0.74974                          | 2.35                             |
|  |                     |                  |                          | Zn                                      | 7440-66-6   | 0.00055              | 0.03828                          | 0.12                             |
|  |                     |                  |                          | P                                       | 7723-14-0   | 0.00014              | 0.00957                          | 0.03                             |
|  |                     |                  |                          | Ag                                      | 7440-22-4   | 0.00091              | 0.06381                          | 0.2                              |
| 2  | Die                 | Silicon Chip     | 0.00735                  | Si                                      | 7440-21-3   | 0.00731              | 0.51289                          | 99.5                             |
| 3  | Die Attach Material | Conductive Epoxy | 0.00206                  | Epoxy Resin                             | Proprietary | 0.00031              | 0.02169                          | 15                               |
|  |                     |                  |                          | Silver                                  | 7440-22-4   | 0.00164              | 0.11494                          | 79.5                             |
|  |                     |                  |                          | Aromatic Amine                          | Proprietary | 0.00011              | 0.00795                          | 5.5                              |
| 4  | Wire                | Gold             | 0.00575                  | Au                                      | 7440-57-5   | 0.00575              | 0.40349                          | 99.99                            |
| 5  | Lead Finish         | Tin              | 0.01264                  | Sn                                      | 7440-31-5   | 0.01264              | 0.88684                          | 100                              |
| 6  | Encapsulation       | Epoxy Resin      | 0.94252                  | Fused Silica                            | 7631-86-9   | 0.63337              | 44.44993                         | 67.2                             |
|  |                     |                  |                          | Epoxy Resin                             | 29690-82-2  | 0.18850              | 13.22915                         | 20                               |
|  |                     |                  |                          | Phenol Resin                            | 9003-35-4   | 0.07069              | 4.96093                          | 7.5                              |
|  |                     |                  |                          | Antimony Trioxide                       | 1309-64-4   | 0.02828              | 1.98437                          | 3                                |
|  |                     |                  |                          | Brominated Epoxy Resin                  | 40039-93-8  | 0.01885              | 1.32291                          | 2                                |
|  |                     |                  |                          | Carbon Black                            | 1333-86-4   | 0.00283              | 0.19844                          | 0.3                              |
| Total Package weight                                   |                     |                  | 1.42491                  |   |             |                      |                                  |                                  |

**Note:** Component Weight based on assembly of generic parts.

**Conclusion:**

The analysis table above shows that this package meets the following RoHS requirements for EACH PACKAGE COMPONENT (mold compound, lead frame, etc.)

|                                      | Maximum Allowable Limit (ppm) | Maximum Allowable Limit (wt %) |
|--------------------------------------|-------------------------------|--------------------------------|
| Lead                                 | 1000 ppm                      | 0.10%                          |
| Mercury                              | 1000 ppm                      | 0.10%                          |
| Cadmium                              | 100 ppm                       | 0.01%                          |
| Hexavalent Chromium                  | 1000 ppm                      | 0.10%                          |
| Polybrominated Biphenyls (PBB)       | 1000 ppm                      | 0.10%                          |
| Polybrominated Biphenylethers (PBDE) | 1000 ppm                      | 0.10%                          |