# Fairchild Semiconductor Product Package Material Disclosure

| Package Type | TO-251-3 (IPAK) | | | | | |
|---|---|---|---|---|---|---|
| Weight of Package (grams) | **Maximum**<br>**Minimum** | **3.95E-01**<br>**3.72E-01** | | | | |
| **Component** | Material | Weight in grams | Substance in material | Wt% in finished product min | Wt% in finished product max | CAS # |
| **Lead Frame** | Copper alloy | 2.36E-01 | | 59.78 | 63.47 | |
| | | | Copper | 59.70 | 63.35 | 7440-50-8 |
| | | | Iron | 0.06 | 0.06 | 7439-89-6 |
| | | | Phosphorus | 0.02 | 0.02 | 7723-14-0 |
| | | | Silver (internal plating) | 0.00 | 0.04 | 7440-22-4 |
| **Encapsulation** | Epoxy | 1.29E-01 | | 32.62 | 34.64 | |
| | | | Silica | 20.18 | 26.90 | |
| | | | Carbon Black | 0.00 | 0.50 | |
| | | | Resin | 5.04 | 11.60 | |
| | | | Antimony Compound | 0.17 | 1.01 | 1309-64-4 |
| | | | Brominated Compound | 0.50 | 1.35 | 40039-93-8<br>68541-56-0<br>68928-70-1 |
| **Plating** | Solder | 8.53E-03 | | 0.74 | 3.71 | |
| | | | Tin | 0.63 | 3.16 | 7440-31-5 |
| | | | Lead | 0.11 | 0.56 | 7439-92-1 |
| | **or**<br>Lead-free Solder | 8.53E-03 | | 0.74 | 3.71 | |
| | | | Tin | 0.74 | 3.71 | 7440-31-5 |
| **Chip** | Silicon and inorganic compounds | 5.93E-03 | | 1.47 | 1.62 | |
| | | | Silicon and trace metals | 1.47 | 1.62 | 7440-21-3 |
| **Die Attach** | Soft solder | 2.35E-03 | | 0.58 | 0.64 | |
| | | | Lead | 0.51 | 0.57 | 7439-92-1 |
| | | | Tin | 0.06 | 0.06 | 7440-31-5 |
| | | | Silver | 0.01 | 0.01 | 7440-22-4 |
| **Wire Bond** | Gold wire | 3.71E-04 | | 0.09 | 0.10 | |
| | | | Gold | 0.09 | 0.10 | 7440-57-5 |
| | **or**<br>Aluminum wire | 2.32E-03 | | 0.60 | 0.67 | |
| | | | Aluminum | 0.60 | 0.67 | 7429-90-5 |

## Materials Disclosure Disclaimer

The information provided in this Materials Disclosure is, to our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company. Also, there may not be information included in this statement regarding the minute amounts of dopant and metal materials contained within the electrically active or passive devices contained within the finished product.