



Product / Package Information

| | |
|------------------------|---------|
| Package | CSP BGA |
| Body Size (mm) | 8 X 8 |
| Ball Count | 120 |
| Terminal Finish | SnAgCu |
| Ball Size (mm) | 0.30 |

Environmental Information

| | |
|-----------------------------------|-----|
| RoHS Compliant | Yes |
| High Temperature Compliant | Yes |
| Halogen Free Compliant | Yes |
| REACH SVHC Compliant | Yes |

Materials Declaration

Molding Compound

| Description | Substance | CAS# | Weight (g) | Homogeneous Material Level | | Component Level | |
|---------------------------|-----------------|-------------|------------|----------------------------|---------|-----------------|--------|
| | | | | Percentage (%) | PPM | Percentage (%) | PPM |
| Other inorganic materials | Silica | 60676-86-0 | 6.01 E-02 | 86.20 | 862000 | 40.32 | 403180 |
| Thermosets | Epoxy resin | Proprietary | 4.18 E-03 | 6.00 | 60000 | 2.81 | 28064 |
| Thermosets | Phenol Resin | Proprietary | 4.18 E-03 | 6.00 | 60000 | 2.81 | 28064 |
| Other inorganic materials | Metal Hydroxide | Proprietary | 1.05 E-03 | 1.50 | 15000 | 0.70 | 7016 |
| Other inorganic materials | Carbon Black | 1333-86-4 | 2.09 E-04 | 0.30 | 3000 | 0.14 | 1403 |
| Subtotal | Subtotal | | 6.97 E-02 | 100.0 | 1000000 | 46.77 | 467726 |

Laminate

| Description | Substance | CAS# | Weight (g) | Homogeneous Material Level | | Component Level | |
|---------------------------|--|-------------|------------|----------------------------|---------|-----------------|--------|
| | | | | Percentage (%) | PPM | Percentage (%) | PPM |
| Copper & its alloys | Glass Cloth | 65997-17-3 | 1.60 E-02 | 31.29 | 312900 | 10.74 | 107383 |
| Copper & its alloys | Copper Foil | 7440-50-8 | 7.43 E-03 | 14.53 | 145300 | 4.99 | 49865 |
| Other inorganic materials | Inorganic Filler | Proprietary | 6.40 E-03 | 12.52 | 125200 | 4.30 | 42967 |
| Thermoset | Epoxy resin | 7328-97-4 | 3.20 E-03 | 6.26 | 62600 | 2.15 | 21483 |
| Thermoset | Bismaleimide | 13676-54-5 | 3.20 E-03 | 6.26 | 62600 | 2.15 | 21483 |
| Thermoset | Triazine | 25722-66-1 | 3.20 E-03 | 6.26 | 62600 | 2.15 | 21483 |
| Other organic materials | Organic Filler | Proprietary | 7.67 E-05 | 0.15 | 1500 | 0.05 | 515 |
| | Laminate Core Subtotal | | 3.95 E-02 | 77.27 | 772700 | 26.52 | 265179 |
| Other organic materials | Modified resin | Proprietary | 1.54 E-03 | 3.02 | 30200 | 1.04 | 10364 |
| Other inorganic materials | Barium Sulfate | 7727-43-7 | 1.57 E-03 | 3.07 | 30700 | 1.05 | 10536 |
| Other organic materials | Aromatic Hydrocarbon | Proprietary | 8.64 E-04 | 1.69 | 16900 | 0.58 | 5800 |
| Thermoset | Epoxy resin | 85954-11-6 | 8.08 E-04 | 1.58 | 15800 | 0.54 | 5422 |
| Other organic materials | Diethylene Glycol Monomethyl Ether Acetate | 112-15-2 | 5.52 E-04 | 1.08 | 10800 | 0.37 | 3706 |
| Other organic materials | Acrylic Esters Monomer | Proprietary | 2.35 E-04 | 0.46 | 4600 | 0.16 | 1579 |
| Other organic materials | Aromatic Carbonyl compound | Proprietary | 1.53 E-04 | 0.30 | 3000 | 0.10 | 1030 |
| Other organic materials | Dipropylene glycol monomethyl ether | 34590-94-8 | 1.48 E-04 | 0.29 | 2900 | 0.10 | 995 |
| Others | Levelling Agents & Others | Proprietary | 9.71 E-05 | 0.19 | 1900 | 0.07 | 652 |
| Other organic materials | Amine Compound | Proprietary | 2.56 E-05 | 0.05 | 500 | 0.02 | 172 |
| Other inorganic materials | Phthalocyanine Green | Proprietary | 1.02 E-05 | 0.02 | 200 | 0.01 | 69 |
| | Soldermask Subtotal | | 6.01 E-03 | 11.75 | 117500 | 4.03 | 40324 |
| Copper & its alloys | Copper | 7440-50-8 | 4.99 E-03 | 9.75 | 97500 | 3.35 | 33461 |
| Nickel & its alloys | Nickel | 7440-02-0 | 5.68 E-04 | 1.11 | 11100 | 0.38 | 3809 |
| Precious metals | Gold | 7440-57-5 | 6.14 E-05 | 0.12 | 1200 | 0.04 | 412 |
| Subtotal | Subtotal | | 5.11 E-02 | 100.00 | 1000000 | 34.32 | 343185 |

Solder Ball

| Description | Substance | CAS# | Weight (g) | Homogeneous Material Level | | Component Level | |
|------------------|-----------|-----------|------------|----------------------------|---------|-----------------|-------|
| | | | | Percentage (%) | PPM | Percentage (%) | PPM |
| Tin & its alloys | Tin | 7440-31-5 | 1.21 E-02 | 96.50 | 965000 | 8.13 | 81315 |
| Tin & its alloys | Silver | 7440-22-4 | 3.77 E-04 | 3.00 | 30000 | 0.25 | 2528 |
| Tin & its alloys | Copper | 7440-50-8 | 6.28 E-05 | 0.50 | 5000 | 0.04 | 421 |
| Subtotal | Subtotal | | 1.26 E-02 | 100 | 1000000 | 8.43 | 84264 |

Bond Wires

| Description | Substance | CAS# | Weight (g) | Homogeneous Material Level | | Component Level | |
|-----------------|-----------|-----------|------------|----------------------------|---------|-----------------|------|
| | | | | Percentage (%) | PPM | Percentage (%) | PPM |
| Precious metals | Gold | 7440-57-5 | 7.58 E-04 | 99 | 990000 | 0.51 | 5088 |
| Precious metals | Palladium | 7440-05-3 | 7.66 E-06 | 1 | 10000 | 0.01 | 51 |
| Subtotal | Subtotal | | 7.66 E-04 | 100 | 1000000 | 0.51 | 5140 |

Chip

| Description | Substance | CAS# | Weight (g) | Homogeneous Material Level | | Component Level | |
|---------------------------|---------------|-----------|------------|----------------------------|---------|-----------------|-------|
| | | | | Percentage (%) | PPM | Percentage (%) | PPM |
| Other inorganic materials | Doped Silicon | 7440-21-3 | 1.36 E-02 | 100 | 1000000 | 9.16 | 91563 |

Die Attach

| Description | Substance | CAS# | Weight (g) | Homogeneous Material Level | | Component Level | |
|---------------------------|-------------------------|------------|------------|----------------------------|---------|-----------------|------|
| | | | | Percentage (%) | PPM | Percentage (%) | PPM |
| Other inorganic materials | Silicon dioxide monomer | 60676-86-0 | 5.84 E-04 | 48.30 | 483000 | 0.39 | 3923 |
| Other organic materials | Bismaleimide monomer | TS #10049 | 3.78 E-04 | 31.25 | 312500 | 0.25 | 2538 |
| Other organic materials | Acrylate monomer | TS #10050 | 1.03 E-04 | 8.52 | 85200 | 0.07 | 692 |
| Thermoset | Epoxy resin | TS #10042 | 1.03 E-04 | 8.52 | 85200 | 0.07 | 692 |
| Other organic materials | Acrylic resin | TS #10051 | 4.13 E-05 | 3.41 | 34100 | 0.03 | 277 |
| Subtotal | Subtotal | | 1.21 E-03 | 100.00 | 1000000 | 0.81 | 8122 |

| | | | | | | | |
|-----------------------|--|--|--------------------------------|--|--|---------------------------------|-----------------------|
| Package Totals | | | Weight (g) 1.49 E-01 | | | Percentage (%) 100.00 | PPM 1000000 |
|-----------------------|--|--|--------------------------------|--|--|---------------------------------|-----------------------|

Note: The information provided in this declaration are true to the best of ADI's knowledge.
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ADI Proprietary

