



Materials Declaration

Package	CSP BGA
Body Size	17 X 17
Ball Count	256
Option	Pb-Free
Ball Size	0.60 mm

Molding Compound

Item	% of Compound	Weight (g)	PPM
SiO2 Filler	85.0	2.90 E-01	303818
Epoxy resin	7.0	2.39 E-02	25020
Phenol Resin	6.5	2.22 E-02	23233
Metal Hydroxide	1.0	3.41 E-03	3574
Carbon Black	0.5	1.70 E-03	1787
Subtotal		3.41 E-01	357433

Molding Compound

Item	PPM	Method
Pb	Not Detected	EPA 3051/3052, ICP-OES
Cd	Not Detected	EPA 3051/3052, ICP-OES
Hg	Not Detected	EPA 3051/3052, ICP-OES
Cr+6	Not Detected	EPA 3060A & EPA 7196A, UV-VIS.
PBB	Not Detected	EPA 3540C/3550C, GC/MS
PBDE	Not Detected	EPA 3540C/3550C, GC/MS

Laminate

Item	% of Laminate	Weight (g)	PPM
BT-Epoxy	28	9.59 E-02	100571
Glass Fiber	25	8.57 E-02	89796
Copper	19	6.51 E-02	68249
Gold	11	3.77 E-02	39510
Solder Mask	9.35	3.20 E-02	33584
Nickel	7.8	2.67 E-02	28016
Subtotal		3.43 E-01	359721

Die Attach Paste

Item	PPM	Method
Pb	Not Detected	EPA 3051/3052, ICP-OES
Cd	Not Detected	EPA 3051/3052, ICP-OES
Hg	Not Detected	EPA 3051/3052, ICP-OES
Cr+6	Not Detected	EPA 3060A & EPA 7196A, UV-VIS.
PBB	Not Detected	EPA 3540C/3550C, GC/MS
PBDE	Not Detected	EPA 3540C/3550C, GC/MS

Solder Ball

	% of Solder Ball	Weight (g)	PPM
Sn	96.5	2.35 E-01	246036
Ag	3	7.30 E-03	7649
Cu	0.5	1.22 E-03	1275
Subtotal		2.43 E-01	254960

Bond Wires

	% of Wire	Weight (g)	PPM
Au	99.99	7.38 E-03	7733

Chip

	% of Chip	Weight (g)	PPM
Si	100	1.68 E-02	17569

Die Attach

Item	% of Die Attach	Weight (g)	PPM
Ag Filler	76	1.88 E-03	1967
Resin	24	5.92 E-04	621
Subtotal			

Package Totals

Weight (g)	PPM
9.54 E-01	1000000

Note: The information provided in this declaration are true to the best of ADI's knowledge. ADI derived most of the information listed in this declaration from documents provided by third parties, and assumes no liability to any inaccuracy of such information.



ADI Proprietary





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Package	CSP BGA
Body Size	17 X 17
Ball Count	256
Option	SnPbAg
Ball Size	0.60 mm

Molding Compound			
Item	% of Compound	Weight (g)	PPM
Silica	90	3.00 E-01	317305
Epoxy resin	4.8	1.60 E-02	16923
Phenol resin	3.9	1.31 E-02	13785
Antimony trioxide	0.7	2.30 E-03	2433
Bromine	0.6	2.00 E-03	2115
Subtotal		3.34 E-01	352561

Molding Compound		
Item	PPM	Method
Pb	Not Detected	EPA 3051/3052, ICP-OES
Cd	Not Detected	EPA 3051/3052, ICP-OES
Hg	Not Detected	EPA 3051/3052, ICP-OES
Cr+6	Not Detected	EPA 3060A & EPA 7196A, UV-VIS.
PBB	Not Detected	EPA 3540C/3550C, GC/MS
PBDE	Not Detected	EPA 3540C/3550C, GC/MS

Laminate			
Item	% of Laminate	Weight (g)	PPM
BT-Epoxy	28	9.59 E-02	101333
Glass Fiber	25	8.57 E-02	90476
Copper	19	6.51 E-02	68762
Gold	11	3.77 E-02	39810
Nickel	7.8	2.67 E-02	28229
Solder Mask	9.35	3.20 E-02	33838
Subtotal		3.43 E-01	362448

Die Attach Paste		
Item	PPM	Method
Pb	Not Detected	EPA 3051/3052, ICP-OES
Cd	Not Detected	EPA 3051/3052, ICP-OES
Hg	Not Detected	EPA 3051/3052, ICP-OES
Cr+6	Not Detected	EPA 3060A & EPA 7196A, UV-VIS.
PBB	Not Detected	EPA 3540C/3550C, GC/MS
PBDE	Not Detected	EPA 3540C/3550C, GC/MS

Solder Ball			
	% of Solder ball	Weight (g)	PPM
Sn	62	1.51 E-01	159273
Pb	36	8.76 E-02	92481
Ag	2	4.86 E-03	5138
Subtotal		2.43 E-01	256893

Bond Wires			
	% of Wire	Weight (g)	PPM
Au	99.99	7.38 E-03	7792

Chip			
	% of Chip	Weight (g)	PPM
Si	100	1.68 E-02	17698

Die Attach			
Item	% of Die Attach	Weight (g)	PPM
Ag Filler	77	1.90 E-03	2008
Resin	23	5.68 E-04	600
Subtotal		2.47 E-03	2607

Package Totals		
Weight (g)	PPM	
9.47 E-01	1000000	

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