Materials Declaration

Package	CSP_BGA
Body Size	15 X 15
Ball Count	124
Option	Sn/Ag/Cu
Ball Size	0.45mm

Molding Compound

Item	% of Compound	Weight (g)	PPM
SiO2 Filler	87.0	2.37 E-01	486689
Biphenyl resin	12.2	3.32 E-02	68235
Sb2O3	0.5	1.40 E-03	2877
Br	0.3	8.00E-04	1644

Laminate

Item	% of Laminate	Weight (g)	PPM
Laminate	43.2	4.63E-02	95159
Copper	24.2	2.60E-02	53437
Solder Mask	21.0	2.25E-02	46244
Nickel	7.4	7.90E-03	16237
Brominated Compound	3.0	3.20E-03	6577
Gold	1.3	1.40E-03	2877

Solder Ball

	% of Solder Ball	Weight (g)	PPM
Sn	96.5	4.79 E-02	98448
Ag	3.0	1.50 E-03	3083
Cu	0.5	2.00 E-04	411

Bond Wires

	% of Wire	Weight (g)	PPM
Au	99.99	1.89 E-03	3887

Chip

	% of Chip	Weight (g)	PPM
Si	100.0	5.30 E-02	108851

Die Attach

Item	% of Die Attach	Weight (g)	PPM
Epoxy/Acrylic	54.0	1.40E-03	2877
SiO2 Filler	48.0	1.20E-03	2466

Molding Compound

Item	PPM	Method
Pb	None Detected	EPA3052. ICP-AES
Cd	None Detected	EPA3052. ICP-AES
Hg	None Detected	EPA3052. ICP-AES
Cr+6	None Detected	USEPA 3060A. UV-VIS.
PBB	None Detected	Analysis was performed by GC/MS
PBDE	None Detected	Analysis was performed by GC/MS

Die Attach Paste

Item	PPM	Method
Pb	None Detected	US EPA Method 3050B. ICP-AES
Cd	None Detected	US EPA Method 3050B. ICP-AES
Hg	None Detected	US EPA Method 3052. ICP-AES
Cr+6	None Detected	US EPA Method 3060A. UV-VIS
PBB	None Detected	Analysis was performed by GC/MS
PBDE	None Detected	Analysis was performed by GC/MS

Package Totals

Weight (g)	PPM
4.87 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.

ANALOG DEVICES

ADI Proprietary

10/11/06

Materials Declaration

Package	CSP_BGA
Body Size	15 X 15
Ball Count	124
Option	Sn/Pb
Ball Size	0.45mm

Molding Compound

Item	% of Compound	Weight (g)	PPM
SiO2 Filler	87.0	2.37 E-01	477464
Biphenyl resin	12.2	3.32 E-02	66942
Sb2O3	0.5	1.40 E-03	2823
Br	0.3	8.00E-04	1613

Laminate

Item	% of Laminate	Weight (g)	PPM
Laminate	43.2	4.63E-02	93356
Copper	24.2	2.60E-02	52424
Solder Mask	21.0	2.25E-02	45367
Nickel	7.4	7.90E-03	15929
Brominated Compound	3.0	3.20E-03	6452
Gold	1.3	1.40E-03	2823
		1.07 E-01	

Solder Ball

	% of Solder Ball	Weight (g)	PPM
Sn	63.0	3.72 E-02	75007
Pb	37.0	2.18 E-02	43956

Bond Wires

	% of Wire	Weight (g)	PPM
Au	99.99	1.89 E-03	3814

Chip

	% of Chip	Weight (g)	PPM
Si	100.0	5.30 E-02	106788

Die Attach

Item	% of Die Attach	Weight (g)	PPM
Epoxy/Acrylic	54.0	1.40E-03	2823
SiO2 Filler	48.0	1.20E-03	2420

Molding Compound

Item	PPM	Method
Pb	None Detected	EPA3052. ICP-AES
Cd	None Detected	EPA3052. ICP-AES
Hg	None Detected	EPA3052. ICP-AES
Cr+6	None Detected	USEPA 3060A. UV-VIS.
PBB	None Detected	Analysis was performed by GC/MS
PBDE	None Detected	Analysis was performed by GC/MS

Die Attach Paste

Item	PPM	Method
Pb	None Detected	US EPA Method 3050B. ICP-AES
Cd	None Detected	US EPA Method 3050B. ICP-AES
Hg	None Detected	US EPA Method 3052. ICP-AES
Cr+6	None Detected	US EPA Method 3060A. UV-VIS
PBB	None Detected	Analysis was performed by GC/MS
PBDE	None Detected	Analysis was performed by GC/MS

Package Totals

Weight (g)	PPM
4.96 E-01	1000000

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