Materials Declaration

Package	Mini BGA
Body Size	9 X 9
Ball Count	148
Option	Pb-Free

Molding Compound

Item	% of Compound	Weight (g)	PPM
Epoxy resin	7	6.59 E-03	32249
SiO2 Filler	85	8.00 E-02	391597
Phenol Resin	6.5	6.12 E-03	29946
Carbon Black	0.5	4.70 E-04	2304
Metal Hydroxide	1	9.41 E-04	4607

Laminate

Item	% of Laminate	Weight (g)	PPM
BT-Epoxy	28	1.73 E-02	84632
Glass Fiber	25	1.54 E-02	75564
Copper	19	1.17 E-02	57429
Gold	11	6.79 E-03	33248
Nickel	7.8	4.82 E-03	23576
Solder Mask	9.35	5.77 E-03	28261
Brominated Compound	Confidential	Not Determined	

Solder Ball

	% of Plating	Weight (g)	PPM
Sn	96.5	1.70 E-02	83076
Ag	3	5.27 E-04	2583
Cu	0.5	8.79 E-05	430

Bond Wires

	% of Wire	Weight (g)	PPM
Au	99.99	1.74 E-03	8504

Chip

	% of Chip	Weight (g)	PPM
Si	**100**	1.41 E-02	68941

Die Attach

Item	% of Die Attach	Weight (g)	PPM
Resin	24	3.58 E-03	17533
Ag Filler	76	1.13 E-02	55521

Molding Compound

Item	PPM	Method
Pb	<2.0	EPA method #3052 (ICPAES)
Cd	<2.0	BS EN 1122:2001B (ICPaes)
Hg	<2.0	Mercury Analyser
Cr+6	<2.0	EPA method #3060A(UV)

Die Attach Paste

Item	PPM	Method
Pb	<5.0	ICP-AES
Cd	<5.0	ICP-AES
Hg	<5.0	ICP-AES
Cr+6	<5.0	ICP-AES

Package Totals

Weight (g)	PPM
2.04 E-01	1000000

STS-BC-I

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

6/10/04

Materials Declaration

Package	Mini BGA
Body Size	9 X 9
Ball Count	148
Option	SnPbAg

Molding Compound

Item	% of Compound	Weight (g)	PPM
Silica	90	8.29 E-02	459218
Epoxy resin	4.8	4.42 E-03	24492
Phenol resin	3.91	3.60 E-03	19950
Antimony trioxide	0.69	6.36 E-04	3521
Bromine	0.6	5.53 E-04	3061

Laminate

Item	% of Laminate	Weight (g)	PPM
BT-Epoxy	28	1.73 E-02	95748
Glass Fiber	25	1.54 E-02	85489
Copper	19	1.17 E-02	64972
Gold	11	6.79 E-03	37615
Nickel	7.8	4.82 E-03	26673
Solder Mask	9.35	5.77 E-03	31973
Brominated Compound	Confidential	Not Determined	

Solder Ball

	% of Plating	Weight (g)	PPM
Sn	62	1.09 E-02	60386
Pb	36	6.33 E-03	35063
Ag	2	3.52 E-04	1948

Bond Wires

	% of Wire	Weight (g)	PPM
Au	99.99	1.74 E-03	9621

Chip

	% of Chip	Weight (g)	PPM
Si	**100**	6.34 E-03	35098

Die Attach

Item	% of Die Attach	Weight (g)	PPM
Resin	23	2.15 E-04	1189
Ag Filler	77	7.19 E-04	3981

Molding Compound

Item	PPM	Method
Cd	<5	BS EN 1122:2001B (ICPaes)

Die Attach Paste

Item	PPM	Method
Pb	<5.0	ICP-AES
Cd	<5.0	ICP-AES
Hg	<5.0	ICP-AES
Cr+6	<5.0	ICP-AES

Package Totals

Weight (g)	PPM
1.81 E-01	1000000

STS-BC-D

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6/10/04