Product / Package Information

Package	CSP BGA
Body Size (mm)	6 X 6
Ball Count	112
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	2.85 E-02	86.20	862000	34.90	349002
Thermosets	Epoxy resin	Proprietary	1.98 E-03	6.00	60000	2.43	24292
Thermosets	Phenol Resin	Proprietary	1.98 E-03	6.00	60000	2.43	24292
Other inorganic materials	Metal Hydroxide	Proprietary	4.95 E-04	1.50	15000	0.61	6073
Other inorganic materials	Carbon Black	1333-86-4	9.90 E-05	0.30	3000	0.12	1215
Subtotal	Subtotal		3.30 E-02	100.0	1000000	40.49	404875

Laminate

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper Foil	7440-50-8	3.86 E-03	15.37	153700	4.74	47360
Composite	Glass Cloth	65997-17-3	3.88 E-03	15.45	154500	4.76	47606
Thermoset	Epoxy resin	7238-97-4	7.71 E-04	3.07	30700	0.95	9460
Thermoset	Bismaleimide	13676-54-5	7.71 E-04	3.07	30700	0.95	9460
Thermoset	Triazine	25722-66-1	7.71 E-04	3.07	30700	0.95	9460
Other inorganic materials	Inorganic filler	Proprietary	1.55 E-03	6.18	61800	1.90	19043
	Laminate Core Subtotal		1.16 E-02	46.21	462100	14.24	142388
Other inorganic materials	Barium Sulfate	7727-43-7	3.62 E-04	1.44	14400	0.44	4437
Other organic materials	Modified resin	Proprietary	3.06 E-04	1.22	12200	0.38	3759
Other organic materials	Aromatic hydrocarbon	Proprietary	1.98 E-04	0.79	7900	0.24	2434
Thermoset	Epoxy resin	85954-11-6	1.86 E-04	0.74	7400	0.23	2280
Other organic materials	Diethylene Glycol Monomethyl Ether Acetate	112-15-2	1.31 E-04	0.52	5200	0.16	1602
Other organic materials	Aromatic Carbonyl Compound	Proprietary	8.04 E-05	0.32	3200	0.10	986
Other organic materials	Acrylic ester monomer	Proprietary	5.28 E-05	0.21	2100	0.06	647
Other inorganic materials	Dipropylene gylcol monomethyl ether	34590-94-8	3.52 E-05	0.14	1400	0.04	431
Other organic materials	Amine Compound	Proprietary	2.76 E-05	0.11	1100	0.03	339
Other inorganic materials	Levelling Agents & Others	Proprietary	2.51 E-05	0.10	1000	0.03	308
Other organic materials	Organic Filler	Proprietary	1.26 E-05	0.05	500	0.02	154
Other organic materials	Phthalocyanine Green	Proprietary	5.02 E-06	0.02	200	0.01	62
	Soldermask Subtotal		1.06 E-03	5.66	56600	1.74	17440
Copper & its alloys	Copper	7440-50-8	1.17 E-02	46.61	466100	14.36	143620
Nickel & its alloys	Nickel	7440-02-0	6.03 E-05	0.24	2400	0.07	740
Precious metals	Gold	7440-57-5	3.22 E-04	1.28	12800	0.39	3944
Subtotal			2.51 E-02	100.00	1000000	30.81	308132

Solder Ball

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-31-5	1.13 E-02	96.50	965000	13.87	138693
Tin & its alloys	Silver	7440-22-4	3.52 E-04	3.00	30000	0.43	4312
Tin & its alloys	Copper	7440-50-8	5.86 E-05	0.50	5000	0.07	719
Subtotal			1.17 E-02	100	1000000	14.37	143724

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	1.16 E-03	99	990000	1.42	14207
Precious metals	Palladium	7440-05-3	1.17 E-05	1	10000	0.014	144
Subtotal			1.17 E-03	100	1000000	1.44	14351

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Doped Silicon	7440-21-3	9.42 E-03	100	1000000	11.55	115502

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other organic materials	Acrylic copolymer	Proprietary	7.26 E-04	66.35	663500	0.89	8902
Other organic materials	Epoxy Resin	Proprietary	1.56 E-04	14.22	142200	0.19	1908
Other organic materials	Phenol Resin	Proprietary	1.56 E-04	14.22	142200	0.19	1908
Other inorganic materials	Silicon Dioxide	Proprietary	5.70 E-05	5.21	52100	0.07	699
Subtotal			1.09 E-03	100.00	1000000	1.34	13417

	Weight (g)	Percentage (%)	PPM
Package Totals	**8.15 E-02**	**100.00**	**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