



**Product / Package Information**

Package	CSP BGA
Body Size (mm)	7 X 7 X 1.0
Ball Count	108
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	3.97 E-02	85.60	856000	31.75		317477
Thermosets	Epoxy Resin	Proprietary	2.33 E-03	5.04	50400	1.87		18693
Thermosets	Phenol Resin	Proprietary	9.31 E-04	2.01	20100	0.75		7455
Other organic materials	Phenol Novolac	9003-35-4	9.31 E-04	2.01	20100	0.75		7455
Other inorganic materials	Metal Hydroxide	Proprietary	2.33 E-03	5.04	50400	1.87		18693
Other inorganic materials	Carbon Black	1333-86-4	1.39 E-04	0.3	3000	0.11		1113
Subtotal			4.63 E-02	100.0	1000000	37.09		370885

**Laminate**

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level		
				Percentage (%)	PPM	Percentage (%)	PPM	
Copper & its alloys	Copper Foil	7440-50-8	2.60 E-03	9.11	91100	2.08		20799
Thermoset	Epoxy resin	26265-08-7	4.64 E-03	16.27	162700	3.71		37146
Other inorganic materials	Silica	14808-60-7	3.96 E-03	13.87	138700	3.17		31667
Other inorganic materials	Calcium oxide	1305-78-8	9.33 E-04	3.27	32700	0.75		7466
Other inorganic materials	Magnesium oxide	1309-48-8	9.33 E-04	3.27	32700	0.75		7466
Other inorganic materials	Aluminum oxide	1344-28-1	9.18 E-04	3.22	32200	0.74		7352
Thermoset	Novolac	9039-25-2	7.30 E-04	2.56	25600	0.58		5845
Other inorganic materials	Boron oxide	Proprietary	4.62 E-04	1.62	16200	0.37		3699
Other inorganic materials	Zinc	7440-66-6	1.14 E-05	0.04	400	0.01		91
Other inorganic materials	Chromium	7440-47-3	1.43 E-06	0.01	50	0.00		11
	Laminate Core Subtotal		1.52 E-02	53.24	366800	12.15		83745
Other inorganic materials	Barium Sulfate	7727-43-7	8.93 E-04	3.13	31300	0.71		7146
Other inorganic materials	Dipropylene glycol monomethyl ether	34590-94-8	4.65 E-04	1.63	16300	0.37		3721
Thermoset	Epoxy resin	Proprietary	4.48 E-04	1.57	15700	0.36		3584
Other inorganic materials	Talc containing no asbestiform fibers	14807-96-6	7.70 E-05	0.27	2700	0.06		616
Other organic materials	Morpholine derivative	Proprietary	7.70 E-05	0.27	2700	0.06		616
Other inorganic materials	Silica	7631-86-9	2.00 E-05	0.07	700	0.02		160
	Soldermask Subtotal		1.98 E-03	6.94	69400	1.58		15845
Copper & its alloys	Copper	7440-50-8	1.06 E-02	37.04	370400	8.46		84567
Nickel & its alloys	Nickel	7440-02-0	6.59 E-04	2.31	23100	0.53		5274
Precious metals	Gold	7440-57-5	1.31 E-04	0.46	4600	0.11		1050
Subtotal			2.85 E-02	100.0	834300	23		228312

**Solder Ball**

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level		
				Percentage (%)	PPM	Percentage (%)	PPM	
Tin & its alloys	Tin	7440-31-5	3.89 E-02	96.50	965000	31.10		311023
Tin & its alloys	Silver	7440-22-4	1.21 E-03	3.00	30000	0.97		9669
Tin & its alloys	Copper	7440-50-8	2.01 E-04	0.50	5000	0.16		1612
Subtotal			4.03 E-02	100	1000000	32.23		322303

**Bond Wires**

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level		
				Percentage (%)	PPM	Percentage (%)	PPM	
Precious metals	Gold	7440-57-5	1.06 E-03	99	990000	0.85		8468
Precious metals	Palladium	7440-05-3	1.07 E-05	1	10000	0.01		86
Subtotal			1.07 E-03	100	1000000	0.86		8554

**Chip**

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level		
				Percentage (%)	PPM	Percentage (%)	PPM	
Other inorganic materials	Doped Silicon	7440-21-3	7.55 E-03	100	1000000	6.04		60436

**Die Attach**

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level		
				Percentage (%)	PPM	Percentage (%)	PPM	
Other organic materials	Acrylic copolymer	Proprietary	7.88 E-04	66.35	663500	0.63		6310
Thermoset	Epoxy resin	Proprietary	1.69 E-04	14.22	142200	0.14		1352
Thermoset	Phenol resin	Proprietary	1.69 E-04	14.22	142200	0.14		1352
Other inorganic materials	Silica	Proprietary	6.19 E-05	5.21	52100	0.05		496
Subtotal			1.19 E-03	100.00	1000000	0.95		9511

<b>Package Totals</b>			<b>Weight (g)</b>	<b>1.25 E-01</b>		<b>Percentage (%)</b>	<b>100.00</b>	<b>PPM</b>	<b>1000000</b>
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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.



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