

Product / Package Information

Package	CSP BGA
Body Size (mm)	7 X 7 X 1.2
Ball Count	72
Terminal Finish	SnAgCu
Ball Size (mm)	0.40

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 material:	Silica	60676-86-0	3.63 E-02	86.20	862000	35.06	350586
Thermosets	Epoxy resin	Proprietary	2.53 E-03	6.00	60000	2.44	24403
Thermosets	Phenol Resin	Proprietary	2.53 E-03	6.00	60000	2.44	24403
Other inorganic material:	Metal Hydroxide	Proprietary	6.32 E-04	1.50	15000	0.61	6101
Other inorganic material:	Carbon Black	1333-86-4	1.26 E-04	0.30	3000	0.12	1220
Subtotal	Subtotal		4.21 E-02	100.0	1000000	40.67	406724

Laminate

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper Foil	7440-50-8	2.87 E-03	9.56	95600	2.77	27682
Thermoset	Epoxy resin	Proprietary	5.12 E-03	17.08	170800	4.95	49457
Other inorganic materials	Silica	Proprietary	4.36 E-03	14.56	145600	4.22	42160
Other inorganic material:	Calcium oxide	Proprietary	1.03 E-03	3.44	34400	1.00	9961
Other inorganic material:	Magnesium oxide	Proprietary	1.03 E-03	3.44	34400	1.00	9961
Other inorganic material:	Aluminum oxide	Proprietary	1.01 E-03	3.38	33800	0.98	9787
Thermoset	Novolac	Proprietary	8.03 E-04	2.68	26800	0.78	7760
Other inorganic material:	Boron oxide	Proprietary	5.10 E-04	1.70	17000	0.49	4923
Other inorganic material:	Zinc	7440-86-6	1.20 E-05	0.04	400	0.01	116
Other inorganic material:	Chromium	7440-47-3	3.00 E-06	0.010	100	0.00	29
	Laminate Core Subtotal		1.68 E-02	55.89	558900	16.18	161836
Other inorganic material:	Barium Sulfate	7727-43-7	1.26 E-03	4.20	42000	1.22	12162
Other inorganic material:	Dipropylene glycol monomethyl ethe	34590-94-8	6.56 E-04	2.19	21900	0.63	6341
Thermoset	Epoxy resin	85954-11-6	6.29 E-04	2.10	21000	0.61	6081
Other organic material:	Talc containing no asbestosiform fiber	14807-96-6	1.11 E-04	0.37	3700	0.11	1071
Other organic material:	Morpholine derivativ	Proprietary	1.11 E-04	0.37	3700	0.11	1071
Others	Silica	7631-86-9	2.70 E-05	0.09	900	0.03	261
	Soldermask Subtotal		2.79 E-03	9.32	93200	2.70	26987
Copper & its alloys	Copper	7440-50-8	9.31 E-03	31.06	310600	8.99	89938
Nickel & its alloys	Nickel	7440-02-0	9.32 E-04	3.11	31100	0.90	9005
Precious metals	Gold	7440-57-5	1.86 E-04	0.62	6200	0.18	1795
Subtotal			3.00 E-02	100.0	1000000	29	289562

Solder Rail

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-51-5	1.82 E-02	96.50	965000	17.57	175735
Tin & its alloys	Silver	7440-22-4	1.82 E-02	3.00	30000	0.55	5463
Tin & its alloys	Copper	7440-50-8	9.43 E-05	0.50	5000	0.09	911
Subtotal			1.89 E-02	100	1000000	18.21	182109

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	6.10 E-04	99	990000	0.59	5891
Precious metals	Palladium	7440-05-3	6.16 E-06	1	10000	0.01	60
Subtotal			6.16 E-04	100	1000000	0.60	5951

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic material:	Doped Silicon	7440-21-3	1.11 E-02	100	1000000	10.76	107579

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic material:	Silicon dioxide	Proprietary	3.50 E-04	41.88	418800	0.34	3381
Other organic material:	Diester resin	Proprietary	2.14 E-04	25.58	255800	0.21	2066
Other organic material:	Functionalized este	Proprietary	1.55 E-04	18.60	186000	0.15	1502
Thermoset	Epoxy resin	Proprietary	5.84 E-05	6.98	69800	0.06	564
Other organic material:	Polymeric materia	Proprietary	5.84 E-05	6.98	69800	0.06	564
Subtotal			8.36 E-04	100.00	1000000	0.81	8076

Package Totals			Weight (g)	1.04 E-01		Percentage (%)	100.00	PPM	1000000
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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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