

Product / Package Information

Package	CSP BGA
Body Size (mm)	15 X 15
Ball Count	260
Terminal Finish	SnAgCu
Ball Size	0.45 mm

Environmental Information

RoHS Compliant	Yes
High Temperature Compliant	Yes
Halogen Free Compliant	No
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	60876-86-0	3.88 E-01	86.2	862000	53.41	534069
Thermosets	Epoxy resin	Proprietary	2.70 E-02	6.0	60000	3.72	37174
Thermosets	Phenol Resin	Proprietary	2.70 E-02	6.0	60000	3.72	37174
Other inorganic materials	Metal Hydroxide	Proprietary	6.76 E-03	1.5	15000	0.93	9294
Other inorganic materials	Carbon Black	1333-86-4	1.35 E-03	0.3	3000	0.19	1859
Subtotal	Subtotal		4.50 E-01	100.0	1000000	61.96	619570

Laminate

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper Foil	7440-50-8	3.49 E-02	21.52	215238	4.80	47957
Other inorganic materials	Glass Cloth	Proprietary	3.49 E-02	21.52	215238	4.80	47957
Thermoset	Core Resin	Proprietary	2.18 E-02	13.45	134524	3.00	29973
	Laminate Core Subtotal		9.15 E-02	56.50	565000	12.59	125887
Thermoset	Soldermask Acrylate Resin	Proprietary	1.20 E-02	7.43	74304	1.66	16556
Other inorganic materials	Barium Sulfate	7727-43-7	1.06 E-02	6.57	65664	1.46	14631
Thermoset	Epoxy Resin	Proprietary	6.11 E-03	3.77	37728	0.84	8405
Other organic materials	Dipropylene glycol monomethyl ethe	34590-94-8	4.48 E-03	2.76	27648	0.62	6160
Other organic materials	Solvent naphtha (petroleum), Heavy arorr	64742-94-5	4.29 E-03	2.65	26496	0.59	5904
Other organic materials	Diethylene glycol monoethyl ether acetate	112-15-2	3.50 E-03	2.16	21600	0.48	4813
Other organic materials	Acrylic Ester Monomer	Proprietary	1.77 E-03	1.09	10944	0.24	2438
Other inorganic materials	Talc	14807-96-6	1.21 E-03	0.75	7488	0.17	1686
Other organic materials	Morpholine Derivatives	Proprietary	1.17 E-03	0.72	7200	0.16	1604
Other organic materials	Urethane Resin	Proprietary	6.07 E-04	0.37	3744	0.08	834
Other inorganic materials	Silane Compounds	Proprietary	4.29 E-04	0.26	2650	0.06	590
Other organic materials	Triazine derivatives	Proprietary	1.59 E-04	0.10	979	0.022	218
Other inorganic materials	Pigment Green	328-53-6	1.17 E-04	0.072	720	0.016	160
Other inorganic materials	Silica	7631-86-9	1.21 E-04	0.075	749	0.017	167
Other inorganic materials	Pigment Yellow	5468-75-7	1.40 E-05	0.009	86	0.002	19
	Soldermask Subtotal		4.67 E-02	28.80	288000	6.42	64169
Copper & its alloys	Copper	7440-50-8	2.17 E-02	13.4	134000	2.99	29856
Nickel & its alloys	Nickel	7440-02-0	1.94 E-03	1.2	12000	0.27	2674
Precious metals	Gold	7440-57-5	1.62 E-04	0.1	1000	0.02	223
Subtotal	Subtotal		1.62 E-01	100.0	1000000	22	222809

Solder Ball

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-31-5	8.86 E-02	96.50	965000	12.19	121888
Tin & its alloys	Silver	7440-22-4	2.76 E-03	3.00	30000	0.38	3789
Tin & its alloys	Copper	7440-50-8	4.59 E-04	0.50	5000	0.06	632
Subtotal	Subtotal		9.18 E-02	100	1000000	12.63	126309

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	2.08 E-03	99.0	990000	0.29	2867
Precious metals	Palladium	7440-05-3	2.11 E-05	1.0	10000	0.003	29
Subtotal	Subtotal		2.11 E-03	100	1000000	0.29	2896

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Doped Silicon	7440-21-3	1.85 E-02	100	1000000	2.54	25445

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other organic materials	Diester resin	Proprietary	1.05 E-03	48.7	486600	0.14	1446
Thermoset	Epoxy resin	Proprietary	4.67 E-04	21.6	216200	0.06	642
Other organic materials	Functionalized ester	Proprietary	4.67 E-04	21.6	216200	0.06	642
Other organic materials	Polymeric material	Proprietary	1.75 E-04	8.1	81000	0.02	241
Subtotal	Subtotal		2.16 E-03	100.00	1000000	0.30	2971

Package Totals	Weight (g)	7.27 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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