



Product / Package Information	
Package	CSP BGA
Body Size (mm)	10 X 10
Ball Count	144
Terminal Finish	SnAgCu
Ball Size (mm)	0.45

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	1.83 E-02	86.20	862000	9.66		96577
Thermosets	Epoxy resin	Proprietary	1.27 E-03	6.00	60000	0.67		6722
Thermosets	Phenol Resin	Proprietary	1.27 E-03	6.00	60000	0.67		6722
Other inorganic materials	Metal Hydroxide	Proprietary	3.18 E-04	1.50	15000	0.17		1681
Other inorganic materials	Carbon Black	1333-86-4	6.37 E-05	0.30	3000	0.03		336
Subtotal			2.12 E-02	100.0	1000000	11.20		112039

#### Laminate

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level		
				Percentage (%)	PPM	Percentage (%)	PPM	
Copper & its alloys	Copper Foil	7440-50-8	1.93 E-02	26.83	268312	10.20		101993
Thermoset	Epoxy resin	26265-08-7	6.32 E-03	8.78	87824	3.34		33384
Other inorganic materials	Silica	14908-60-7	3.27 E-03	4.54	45364	1.72		17244
Other inorganic materials	Calcium oxide	1305-78-8	7.70 E-04	1.07	10692	0.41		4064
Other inorganic materials	Magnesium oxide	1309-48-8	7.70 E-04	1.07	10692	0.41		4064
Other inorganic materials	Aluminum oxide	1344-28-1	7.57 E-04	1.05	10516	0.40		3997
Other inorganic materials	Boron oxide	Proprietary	3.83 E-04	0.53	5324	0.20		2024
Other inorganic materials	Zinc	7440-66-6	7.92 E-05	0.11	1100	0.04		418
Other inorganic materials	Chromium	7440-47-3	1.27 E-05	0.02	176	0.01		67
	Laminate Core Subtotal		3.17 E-02	44.90	440000	16.73		167257
Thermoset	Acrylic resin	Proprietary	3.28 E-03	4.55	45540	1.73		17311
Other inorganic materials	Barium Sulfate, Silica, Talc	Proprietary	2.50 E-03	3.47	34740	1.32		13206
Other organic materials	3-Methoxy-3-Methyl Butyl-Acetate	Proprietary	1.84 E-03	2.56	25560	0.97		9716
Thermoset	Epoxy resin	Proprietary	1.72 E-03	2.39	23940	0.91		9100
Other organic materials	Dipropylene Glycol Monomethyl Ether	34590-94-8	1.18 E-03	1.64	16380	0.62		6227
Other inorganic materials	Barium Sulfate	7727-43-7	8.42 E-04	1.17	11700	0.44		4448
Other organic materials	Aromatic Carbonyl Compound	Proprietary	3.24 E-04	0.45	4500	0.17		1714
Other organic materials	High Boiling Point Petroleum Solvent	Proprietary	3.11 E-04	0.43	4320	0.16		1642
Other organic materials	Acrylic Monomer	Proprietary	5.05 E-04	0.70	7020	0.27		2669
Others	Levelling agent & others	Proprietary	2.07 E-04	0.29	2880	0.11		1095
Other organic materials	Organic filler	Proprietary	1.68 E-04	0.23	2340	0.09		890
Other organic materials	Amine compound	Proprietary	5.18 E-05	0.07	720	0.03		274
Other organic materials	Phthalocyanine Green, Organic Pigment	Proprietary	2.59 E-05	0.04	360	0.01		137
	Soldermask Subtotal		1.30 E-02	18.00	18000	6.84		68423
Copper & its alloys	Copper	7440-50-8	2.59 E-02	36.00	360000	13.68		136848
Nickel & its alloys	Nickel	7440-02-0	7.20 E-04	1.00	10000	0.38		3801
Precious metals	Gold	7440-57-5	7.20 E-04	1.00	10000	0.38		3801
Subtotal			7.20 E-02	100.0	1000000	38.01		380129

#### Solder Ball

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level		
				Percentage (%)	PPM	Percentage (%)	PPM	
Tin & its alloys	Tin	7440-31-5	4.91 E-02	96.50	965000	25.91		259138
Tin & its alloys	Silver	7440-22-4	1.53 E-03	3.00	30000	0.81		8056
Tin & its alloys	Copper	7440-50-8	2.54 E-04	0.50	5000	0.13		1343
Subtotal			5.09 E-02	100	1000000	26.85		268537

#### Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level		
				Percentage (%)	PPM	Percentage (%)	PPM	
Precious metals	Gold	7440-57-5	1.15 E-03	99	990000	0.61		6091
Precious metals	Palladium	7440-05-3	1.17 E-03	1	10000	0.01		62
Subtotal			1.17 E-03	100	1000000	0.62		6152

#### Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level		
				Percentage (%)	PPM	Percentage (%)	PPM	
Other inorganic materials	Doped Silicon	7440-21-3	3.95 E-02	100	1000000	20.88		208772

#### Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level		
				Percentage (%)	PPM	Percentage (%)	PPM	
Precious metals	Silver	7440-22-4	3.05 E-03	66.11	661100	1.61		16112
Other organic materials	Polymeric materia	Proprietary	7.63 E-04	16.53	165300	0.40		4029
Other organic materials	Acrylate resin	Proprietary	2.86 E-04	6.20	62000	0.15		1511
Other organic materials	Diester resin	Proprietary	2.86 E-04	6.20	62000	0.15		1511
Other organic materials	Functionalized urethane resin	Proprietary	1.14 E-04	2.48	24800	0.06		604
Thermoset	Epoxy resin	Proprietary	1.14 E-04	2.48	24800	0.06		604
Subtotal			4.62 E-03	100.00	1000000	2.44		24372

Package Totals	Weight (g)	Percentage (%)	PPM
	1.89 E-01	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.



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