

Product / Package Information

Package	CSP BGA
Body Size (mm)	8 X 8
Ball Count	49
Terminal Finish	SnAgCu
Ball Size	0.60 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	60676-86-0	6.79 E-02	86.2	862000	62.42	624196
Thermosets	Epoxy resin	Proprietary	4.73 E-03	6.0	60000	4.34	43447
Thermosets	Phenol Resin	Proprietary	4.73 E-03	6.0	60000	4.34	43447
Other inorganic materials	Metal Hydroxide	Proprietary	1.18 E-03	1.5	15000	1.09	10862
Other inorganic materials	Carbon Black	1333-86-4	2.36 E-04	0.3	3000	0.22	2172
Subtotal	Subtotal		7.88 E-02	100.0	1000000	72.41	724125

Laminate

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper Foil	7440-50-8	7.51 E-04	9.67	96700	0.69	6896
Other inorganic materials	Core Glass Cloth	65997-17-3	7.51 E-04	9.67	96700	0.69	6896
Thermoset	Core Resin	13676-54-5 / 25722-66-1 / 68541-56-0 / 29690-82-2 / 25068-38-6	4.70 E-04	6.05	60500	0.43	4314
Thermoset	Prepreg resin	13676-54-5 / 25722-66-1 / 68541-56-0 / 29690-82-2 / 25068-38-6	1.11 E-03	14.27	142700	1.02	10176
Other inorganic materials	Prepreg Glass Cloth	65997-17-3	7.70 E-04	9.92	99200	0.71	7074
	Laminate Core Subtotal		3.85 E-03	49.58	495800	3.54	35356
Other organic materials	Modified Epoxy Resin		1.01 E-04	1.30	13000	0.09	927
Other inorganic materials	Barium Sulfate and silica	7727-43-7 / 7631-86-9	5.98 E-05	0.77	7700	0.055	549
Other organic materials	Diethylene glycol monoethyl ether acetate	112-15-2	4.35 E-05	0.56	5600	0.04	399
Other organic materials	Aromatic Hydrocarbon	64742-94-5	3.34 E-05	0.43	4300	0.03	307
Other organic materials	Aromatic Carbonyl Compound	Proprietary	1.71 E-05	0.22	2200	0.02	157
Other organic materials	Dipropylene glycol monomethyl ether	34590-94-8	6.99 E-06	0.09	900	0.01	64
Other inorganic materials	Leveling agents and others	Proprietary	6.99 E-06	0.09	900	0.01	64
Other organic materials	Amine compound	Proprietary	3.10 E-06	0.04	400	0.003	29
Other organic materials	Phthalocyanine Green	Proprietary	1.55 E-06	0.02	200	0.001	14
	Soldermask Subtotal		2.73 E-04	3.52	35200	0.25	2510
Copper & its alloys	Copper	7440-50-8	3.54 E-03	45.60	456000	3.25	32518
Nickel & its alloys	Nickel	7440-02-0	8.54 E-05	1.10	11000	0.08	784
Precious metals	Gold	7440-57-5	1.55 E-05	0.20	2000	0.01	143
Subtotal	Subtotal		7.76 E-03	100.00	1000000	7	71311

Solder Ball

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-31-5	1.67 E-02	96.50	965000	15.35	153452
Tin & its alloys	Silver	7440-22-3	5.19 E-04	3.00	30000	0.48	4771
Tin & its alloys	Copper	7440-50-8	8.65 E-05	0.50	5000	0.08	795
Subtotal	Subtotal		1.73 E-02	100	1000000	15.90	159018

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	4.49 E-04	99.99	1000000	0.41	4128

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Doped Silicon	7440-21-3	4.04 E-03	100	1000000	3.71	37088

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	3.74 E-04	79.38	793800	0.34	3437
Other organic materials	Bismaleimide monomer	TS# 10049	3.74 E-05	7.94	79400	0.03	344
Other organic materials	Acrylate monomer	TS# 10064	1.49 E-05	3.17	31700	0.01	137
Other organic materials	Epoxy resin	TS# 10042	1.49 E-05	3.17	31700	0.01	137
Other organic materials	Carbamate resin	TS# 10063	1.49 E-05	3.17	31700	0.01	137
Thermoset	Acrylic resin	TS# 10051	1.49 E-05	3.17	31700	0.01	137
Subtotal	Subtotal		4.71 E-04	100.00	1000000	0.43	4330

Package Totals			Weight (g) 1.09 E-01			Percentage (%) 100.00	PPM 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.



ADI Proprietary