

Product / Package Information	
Package	BGA
Body Size	27 X 27
Lead Count	400
Terminal Finish	SnAgCu
Ball Size	0.76

Environmental Compliance 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	60676-88-0	1.10 E+00	86.20	862000	39.52	395240
Thermosets	Epoxy resin	Proprietary	7.67 E-02	6.00	60000	2.75	27511
Thermosets	Phenol Resin	Proprietary	7.67 E-02	6.00	60000	2.75	27511
Other inorganic materials	Metal Hydroxide	Proprietary	1.92 E-02	1.50	15000	0.69	6878
Other inorganic materials	Carbon Black	1333-86-4	3.84 E-03	0.30	3000	0.14	1376
Subtotal			1.28 E+00	100.00	1000000	45.85	458516

#### Laminate

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Thermoset	Prepreg resin	Proprietary	9.30 E-02	12.65	126500	3.33	33340
Other inorganic materials	Prepreg Glass Cloth	Proprietary	6.46 E-02	8.79	87900	2.32	23167
Copper & its alloys	Copper Foil	Proprietary	6.31 E-02	8.59	85900	2.26	22639
Other inorganic materials	Glass Cloth	Proprietary	6.31 E-02	8.59	85900	2.26	22639
Thermoset	Core Resin	Proprietary	3.95 E-02	5.37	53700	1.42	14153
	Laminate Core Subtotal		3.23 E-01	43.99	439900	11.59	115938
Thermoset	Soldermask Acrylate Resin	Proprietary	3.41 E-02	4.64	46400	1.22	12229
Other inorganic materials	Barium Sulfate	7727-43-7	3.01 E-02	4.10	41000	1.08	10806
Thermoset	Epoxy Resin	Proprietary	1.73 E-02	2.36	23600	0.62	6220
Other organic materials	Dipropylene glycol monomethyl ether	34590-94-8	1.27 E-02	1.73	17300	0.46	4560
Other organic materials	Solvent naphtha (petroleum), Heavy arom	Proprietary	1.22 E-02	1.66	16600	0.44	4375
Other organic materials	Acetate	Proprietary	9.92 E-03	1.35	13500	0.36	3558
Other organic materials	Acrylic Ester Monomer	Proprietary	5.00 E-03	0.68	6800	0.18	1792
Other inorganic materials	Talc	14807-96-6	3.45 E-03	0.47	4700	0.12	1239
Other organic materials	Morpholine Derivative	Proprietary	3.31 E-03	0.45	4500	0.12	1186
Other organic materials	Urethane Resin	Proprietary	1.69 E-03	0.23	2300	0.06	606
Other inorganic materials	Silane Compound	Proprietary	1.25 E-03	0.17	1700	0.04	448
Other organic materials	Triazine derivatives	Proprietary	4.41 E-04	0.06	600	0.02	158
Other organic materials	Proprietary Green	Proprietary	3.67 E-04	0.05	500	0.01	132
Other inorganic materials	Silica	7631-86-9	3.67 E-04	0.05	500	0.01	132
Other inorganic materials	Pigment Yellow	Proprietary	7.35 E-05	0.01	100	0.003	26
	Soldermask Subtotal		1.32 E-01	18.01	180100	4.75	47466
Copper & its alloys	Copper	7440-50-8	2.65 E-01	36.00	360000	9.49	94880
Nickel & its alloys	Nickel	7440-02-0	7.35 E-03	1.00	10000	0.26	2636
Precious metals	Gold	7440-57-5	7.35 E-03	1.00	10000	0.26	2636
Subtotal			7.35 E-01	100.00	1000000	26.36	263556

#### Solder Ball

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-31-5	6.57 E-01	96.50	965000	23.55	235474
Tin & its alloys	Silver	7440-22-4	2.04 E-02	3.00	30000	0.73	7320
Tin & its alloys	Copper	7440-50-8	3.40 E-03	0.50	5000	0.12	1220
Subtotal			6.80 E-01	100.0	1000000	24.40	244074

#### Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	1.10 E-02	99.0	990000	0.39	3944
Precious metals	Palladium	7440-05-3	1.11 E-04	1.0	10000	0.004	40
Subtotal			1.11 E-02	100.0	1000000	0.40	3983

#### Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Doped Silicon	7440-21-3	7.10 E-02	100.0	1000000	2.55	25477

#### Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	9.87 E-03	79.38	793800	0.35	3540
Other organic materials	Bismaleimide monomer	TS# 10049	9.87 E-04	7.94	79400	0.04	354
Other organic materials	Acrylate monomer	TS# 10064	3.94 E-04	3.17	31700	0.01	141
Other organic materials	Epoxy resin	TS# 10042	3.94 E-04	3.17	31700	0.01	141
Other organic materials	Carbamate resin	TS# 10063	3.94 E-04	3.17	31700	0.01	141
Thermoset	Acrylic resin	TS# 10051	3.94 E-04	3.17	31700	0.01	141
Subtotal			1.24 E-02	100.00	1000000	0.45	4460

Package Totals	Weight (g)	Percentage (%)	PPM
	2.79 E+00	100.00	1000000

Control ID:MS011779 05082020

Note: The information provided in this declaration are true to the best of ADI's knowledge.

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