Materials Declaration

Package	LGA
Body Size	3 X 3
Ball Count	16
Option	e4 with exemption

Molding Compound

Substance	% of Compound	Weight (g)	PPM
Silica	86.2	1.23 E-02	500333
Epoxy resin	6.0	8.58 E-04	34826
Phenol resin	6.0	8.58 E-04	34826
Metal Hydroxide	1.5	2.15 E-04	8706
Carbon black	0.3	4.29 E-05	1741
Subtotal	100.0	1.43 E-02	580432

Laminate

Substance	% of Laminate	Weight (g)	PPM
Continuous filament Fiber Glass			
Copper			
Bismaleimide/Triazine			
Epoxy Resin			
Epoxy Resin (may contain Chlorine)		2.66 E-07	11
Epoxy Resin (may contain Bromine)		5.70 E-08	2
Laminate Core Subtotal	38.8	1.90 E-03	77120
Inorganic Filler			
Diethylene Glycol Ethyl Ether Acetate			
Dipropylene Glycol Methyl Ether			
Heavy Aromatic Naphtha (petroleum)			
May contain Chlorine		3.60 E-07	15
May contain Bromine		2.52 E-07	10
Soldermask Subtotal	18.4	9.00 E-04	36531
Copper	22.4	1.10 E-03	44649
Nickel	18.4	9.00 E-04	36531
Gold	2.0	1.00 E-04	4059
Subtotal	100.0	4.90 E-03	198889

Bond Wires

Substance	% of Wire	Weight (g)	PPM
Gold	99.0	6.43 E-05	2611
Palladium	1.0	6.50 E-07	26
Subtotal	100.0	6.50 E-05	2637

Chip

Substance	% of Chip	Weight (g)	PPM
Doped Silicon	100	2.24 E-03	91056

Die Attach

Substance	% of Die Attach	Weight (g)	PPM
Silver	51	9.69 E-04	39331
Resin	49	9.31 E-04	37789
Subtotal	100	1.90 E-03	77120

Seal Glass

Substance	% of Seal Glass	Weight (g)	PPM
Lead borosilicate glass	63.0	7.74 E-04	31415
Trimethyl pentanediol monoisobutyrate	25.0	3.07 E-04	12466
Aluminosilicate glass	9.0	1.11 E-04	4488
Terpineol	3.0	3.69 E-05	1496
Subtotal	100.0	1.23 E-03	49864

Molding Compound

Substance	PPM	Method
Lead	Not Detected	Draft IEC 62321. ICP-OES.
Cadmium	Not Detected	Draft IEC 62321. ICP-OES.
Mercury	Not Detected	Draft IEC 62321. ICP-OES.
Chromium+6	Not Detected	Draft IEC 62321. UV-VIS.
Polybrominated biphenyls (PBB)	Not Detected	Draft IEC 62321. GC-MSD.
Polybrominated Diphenyl Ethers (PBDE)	Not Detected	Draft IEC 62321. GC-MSD.

Die Attach Paste

Substance	PPM	Method
Lead	Not Detected	Draft IEC 62321. ICP-OES.
Cadmium	Not Detected	Draft IEC 62321. ICP-OES.
Mercury	Not Detected	Draft IEC 62321. ICP-OES.
Chromium+6	Not Detected	Draft IEC 62321. UV-VIS.
Polybrominated biphenyls (PBB)	Not Detected	Draft IEC 62321. GC-MSD.
Polybrominated Diphenyl Ethers (PBDE)	Not Detected	Draft IEC 62321. GC-MSD.

Package Totals

Weight (g)	PPM
2.46 E-02	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.

ANALOG DEVICES

ADI Proprietary