

Product / Package Information			Environmental Information		
Package	LCC		RoHS Compliant	Yes, with exemption	
Body Size			High Temperature Compliant	Yes	
Lead Count	18		Halogen Free Compliant	Yes	
Terminal Finish	Au		REACH SVHC Compliant	Yes, except Bisphenol A	
MS Number	MS012935		Last Updated	April 2, 2019	

Materials Declaration

Ceramic Base							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Ceramics	Alumina	1344-28-1	4.95 E-02	91.3	913200	45.60	456027
Ceramics	Chromium oxide	1308-38-9	2.09 E-03	3.9	38500	1.92	19226
Ceramics	Silicon dioxide	7631-86-9	1.94 E-03	3.6	35800	1.79	17878
Ceramics	Titanium dioxide	13463-67-7	5.36 E-04	0.99	9900	0.49	4944
Ceramics	Molybdenum	7439-98-7	1.41 E-04	0.26	2600	0.13	1298
Subtotal			5.42 E-02	100	1000000	49.94	499373

External Plating							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	6.18 E-04	67.6	676000	0.57	5700
Nickel & its alloys	Nickel	7440-02-0	2.96 E-04	32.4	324000	0.27	2732
Subtotal			9.15 E-04	100.00	1000000	0.84	8431

Solder Pad/ Traces							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Tungsten	7440-33-7	9.15 E-04	100.0	1000000	0.84	8431

Lid Shield							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Iron & its alloys	Iron	7439-89-6	6.32 E-03	56.7	567000	5.83	58261
Iron & its alloys	Nickel	7440-02-0	4.63 E-03	41.5	415000	4.26	42643
Iron & its alloys	Manganese	7439-96-5	8.92 E-05	0.8	8000	0.08	822
Iron & its alloys	Cobalt	7440-48-4	5.57 E-05	0.5	5000	0.05	514
Iron & its alloys	Silicon	7440-21-3	3.34 E-05	0.3	3000	0.03	308
Iron & its alloys	Chromium	7440-47-3	2.23 E-05	0.2	2000	0.02	206
Subtotal			1.11 E-02	100.0	1000000	10.28	102753

Lid Shield Attach							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other Organic materials	Zinc Oxide	1314-13-2	1.99 E-02	52.50	525000	18.31	183050
Other Organic materials	Bisphenol A	25068-38-6	1.13 E-02	30.00	300000	10.46	104600
Other Organic materials	Formaldehyde, polymer with (chloromethyl)	40216-08-8	5.67 E-03	15.00	150000	5.23	52300
Other Organic materials	Other Ingredients	Proprietary	5.67 E-04	1.50	15000	0.52	5230
Nickel & its alloys	Nickel	7440-02-0	3.03 E-04	0.80	8000	0.28	2789
Precious metals	Gold	7440-57-5	7.57 E-05	0.20	2000	0.07	697
Subtotal			3.78 E-02	100.0	1000000	34.87	348667

Bond Wires							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious Metals	Gold	7440-57-5	1.53 E-05	99.0	990000	0.01	141
Precious metals	Palladium	5/3/7440	1.55 E-07	1.0	10000	0.00	1
Subtotal			1.55 E-05	100.0	1000000	0.01	142

Chip							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Gallium Arsenide	1303-00-0	3.06 E-03	100.0	1000000	2.82	28213

Die Coat							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Siloxanes and Silicones, de-Me, mono(vinyl	68952-00-1	2.59 E-04	98.75	987500	0.24	2387
Other organic materials	Organic silicon compounds	Proprietary	2.62 E-06	1.00	10000	0.00	24
Others	Miscellaneous substances	Proprietary	6.56 E-07	0.25	2500	0.00	6
Subtotal			2.62 E-04	100.0	1000000	0.24	2417

Die Attach 1							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	8.16 E-05	80.00	800000	0.08	752
Other organic materials	Cyanic acid, ethyldenedi-4,1-phenylene ester	47073-92-7	2.04 E-05	20.00	200000	0.02	188
Subtotal			1.02 E-04	100.00	1000000	0.09	940

Die Attach 2							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Siloxanes and silicones, di-Me, vinyl group-terminated	7440-22-4	2.67 E-05	45.00	450000	0.02	246
Other inorganic materials	Treated silica	Proprietary	1.19 E-05	20.00	200000	0.01	109
Other inorganic materials	Vitreous silica	60676-86-0	1.19 E-05	20.00	200000	0.01	109
Other inorganic materials	Amorphous silica	67762-90-7	4.45 E-06	7.50	75000	0.00	41
Other inorganic materials	Dimethyl,methyl hydrogen siloxane	68037-59-2	4.45 E-06	7.50	75000	0.00	41
Subtotal			5.93 E-05	100.00	1000000	0.05	547

Seal							
Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Aluminum & its alloys	Lead borosilicate glass	65997-17-3	9.14 E-06	99.53	995295	0.01	84
Other inorganic materials	Terpineol	8006-39-1	4.18 E-08	0.46	4552	0.00	0
Aluminum & its alloys	Trimethyl Pentanediol Monoisobutyrate	25265-77-4	1.39 E-09	0.02	152	0.00	0
Other inorganic materials	Aluminosilicate glass	65997-17-3	1.39 E-11	0.00	2	0.00	0
Subtotal			9.18 E-06	100.00	1000000	0.01	85

Package Totals			Weight (g) 1.08 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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