




<div>MICROCHIP</div>											Package Homogeneous Materials					
Semiconductor Device Type:		RJC	TFBGA-196-8x8x1.2mm-SnPb													
Basic Substance	CAS Number	"Contained In" Sub-Component	% Total Weight	mg/part	ppm	11.35	(mg) Total	Die	% of Total Weight	5.62						
Silicon	7440-21-3	Die	5.62	11.35	56166		Silicon	7440-21-3	100.00							
Glass, oxide	65997-17-3	Substrate	2.61	5.28	26107		Total				100.00					
Aluminium hydroxide oxide	24623-77-6	Substrate	1.26	2.55	12618											
Bismaleimide-Triazine Resin	Trade Secret	Substrate	0.88	1.79	8838	45.90	(mg) Total	Substrate	% of Total Weight	22.71						
Epoxy Resin	Trade Secret	Substrate	0.59	1.20	5931		Glass, oxide	65997-17-3	11.49							
Other	Trade Secret	Substrate	0.45	0.92	4535		Aluminium hydroxide oxide	24623-77-6	5.56							
Bisphenol A	80-05-7	Substrate	0.01	0.02	116		Bismaleimide-Triazine Resin	Trade Secret	3.89							
Glass, oxide	65997-17-3	Substrate	3.48	7.03	34795		Epoxy Resin	Trade Secret	2.61							
Aluminium hydroxide oxide	24623-77-6	Substrate	1.68	3.40	16816		Other	Trade Secret	2.00							
Bismaleimide-Triazine Resin	Trade Secret	Substrate	1.18	2.38	11779		Bisphenol A	80-05-7	0.05							
Epoxy Resin	Trade Secret	Substrate	0.79	1.60	7904		Glass, oxide	65997-17-3	15.32							
Other	Trade Secret	Substrate	0.60	1.22	6045		Aluminium hydroxide oxide	24623-77-6	7.40							
Bisphenol A	80-05-7	Substrate	0.02	0.03	155		Bismaleimide-Triazine Resin	Trade Secret	5.19							
Copper	7440-50-8	Substrate	2.33	4.70	23258		Epoxy Resin	Trade Secret	3.48							
Other Organic Compounds	Trade Secret	Substrate	0.06	0.12	581		Other	Trade Secret	2.66							
Other Epoxy Resins	Trade Secret	Substrate	2.98	6.03	29843		Bisphenol A	80-05-7	0.07							
Other Organic Compounds	Trade Secret	Substrate	0.00	0.01	48		Copper	7440-50-8	10.24							
Phthalocyanine Blue	147-14-8	Substrate	0.01	0.02	97		Other Organic Compounds	Trade Secret	0.26							
Talc	14807-96-6	Substrate	0.17	0.35	1744		Other Epoxy Resins	Trade Secret	13.14							
Silicon dioxide	7631-86-9	Substrate	0.04	0.09	436		Other Organic Compounds	Trade Secret	0.02							
Barium sulfate	7727-43-7	Substrate	1.51	3.04	15067		Phthalocyanine Blue	147-14-8	0.04							
Other	Trade Secret	Substrate	0.06	0.13	630		Talc	14807-96-6	0.77							
Nickel	7440-02-0	Substrate	1.63	3.29	16267		Silicon dioxide	7631-86-9	0.19							
Gold	7440-57-5	Substrate	0.35	0.71	3527		Barium sulfate	7727-43-7	6.63							
Silver	7440-22-4	Die Attach	0.25	0.51	2510		Other	Trade Secret	0.28							
Tetramethylene dimethacrylate	2082-81-7	Die Attach	0.03	0.06	282		Nickel	7440-02-0	7.16							
Difunctional Acrylic Esters	Trade Secret	Die Attach	0.00	0.01	28		Gold	7440-57-5	1.55							
Gold	7440-57-5	Bonding Wire	1.24	2.51	12444		Total				100.00					
Palladium	7440-05-3	Bonding Wire	0.01	0.03	126											
Tin	7440-31-5	Solder Paste	7.60	15.35	75975	0.57	(mg) Total	Die Attach	% of Total Weight	0.28						
Lead	7439-92-1	Solder Paste	4.46	9.02	44620		Silver	7440-22-4	89.00							
Silica, vitreous	60676-86-0	Molding Compound (Encapsulation)	51.39	103.85	513929		Tetramethylene dimethacrylate	2082-81-7	10.00							
Epoxy Resin	Trade Secret	Molding Compound (Encapsulation)	2.32	4.69	23228		Difunctional Acrylic Esters	Trade Secret	1.00							
Phenol Resins	Trade Secret	Molding Compound (Encapsulation)	1.74	3.52	17421		Total				100.00					
Carbon Black	1333-86-4	Molding Compound (Encapsulation)	0.29	0.59	2904											
Metal Hydroxide	Trade Secret	Molding Compound (Encapsulation)	1.74	3.52	17421	2.54	(mg) Total	Bonding Wire	% of Total Weight	1.26						
Crystalline silica	14808-60-7	Molding Compound (Encapsulation)	0.58	1.17	5807		Gold	7440-57-5	99.00							
TOTALS:			100.00	202.08	1,000,000		Palladium	7440-05-3	1.00							
202.08 mg Total Mass						Total						100.00				
The information contained in this Material Content Declaration (MCD) consists of package-level information and is not part number specific. This information is considered to be sufficiently representative of all part numbers for the package type.																
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						24.37	(mg) Total	Solder Paste	% of Total Weight	12.06						
							Tin	7440-31-5	63.00							
							Lead	7439-92-1	37.00							
						Total								100.00		
						117.35	(mg) Total	Molding Compound (Encapsulation)	% of Total Weight	58.07						
							Silica, vitreous	60676-86-0	88.50							
							Epoxy Resin	Trade Secret	4.00							
							Phenol Resins	Trade Secret	3.00							
							Carbon Black	1333-86-4	0.50							
							Metal Hydroxide	Trade Secret	3.00							
							Crystalline silica	14808-60-7	1.00							
						202.08	Total	100.00		100.00						