



MICROCHIP						Package Homogeneous Materials				
Semiconductor Device Type: QZC PBGA-484-23x23x2.44mm-SAC305										
Basic Substance	CAS Number	"Contained In" Sub-Component	% Total Weight	mg/part	ppm	1087.47	(mg) Total	Mold Compound	% of Total Weight	45.33
Epoxy Resin A	Trade Secret	Mold Compound	1.36	32.62	13601		Epoxy Resin A	Trade Secret	3.00	
Epoxy Resin B	Trade Secret	Mold Compound	1.36	32.62	13601		Epoxy Resin B	Trade Secret	3.00	
Phenol Resin	Trade Secret	Mold Compound	1.36	32.62	13601		Phenol Resin	Trade Secret	3.00	
Silica, vitreous	60676-86-0	Mold Compound	32.87	788.41	328677		Silica, vitreous	60676-86-0	72.50	
Silicon dioxide	7631-86-9	Mold Compound	6.80	163.12	68003		Silicon dioxide	7631-86-9	15.00	
Aluminium	7429-90-5	Mold Compound	1.36	32.62	13601		Aluminium	7429-90-5	3.00	
Carbon Black	1333-86-4	Mold Compound	0.23	5.44	2267		Carbon Black	1333-86-4	0.50	
Glass, oxide	65997-17-3	Laminate	5.94	142.53	59419		Total 100.00			
Aluminium hydroxide oxide	24623-77-6	Laminate	2.87	68.88	28717					
Bismaleimide-Triazine Resin	Trade Secret	Laminate	2.01	48.25	20115	783.80	(mg) Total	Laminate	% of Total Weight	32.68
Epoxy Resin	Trade Secret	Laminate	1.35	32.38	13498		Glass, oxide	65997-17-3	18.18	
Other	Trade Secret	Laminate	1.03	24.76	10322		Aluminium hydroxide oxide	24623-77-6	8.79	
Bisphenol A	80-05-7	Laminate	0.03	0.63	265		Bismaleimide-Triazine Resin	Trade Secret	6.16	
Glass, oxide	65997-17-3	Laminate	2.38	57.01	23768		Epoxy Resin	Trade Secret	4.13	
Aluminium hydroxide oxide	24623-77-6	Laminate	1.15	27.55	11487		Other	Trade Secret	3.16	
Bismaleimide-Triazine Resin	Trade Secret	Laminate	0.80	19.30	8046		Bisphenol A	80-05-7	0.08	
Epoxy Resin	Trade Secret	Laminate	0.54	12.95	5399		Glass, oxide	65997-17-3	7.27	
Other	Trade Secret	Laminate	0.41	9.90	4129		Aluminium hydroxide oxide	24623-77-6	3.52	
Bisphenol A	80-05-7	Laminate	0.01	0.25	106		Bismaleimide-Triazine Resin	Trade Secret	2.46	
Cured Resin	Trade Secret	Laminate	0.92	21.95	9153		Epoxy Resin	Trade Secret	1.65	
Phthalocyanine blue	147-14-8	Laminate	0.00	0.06	24		Other	Trade Secret	1.26	
Other	Trade Secret	Laminate	0.00	0.06	24		Bisphenol A	80-05-7	0.03	
Silica	Trade Secret	Laminate	0.01	0.15	61		Cured Resin	Trade Secret	2.80	
Barium sulfate	7727-43-7	Laminate	0.25	6.05	2522		Phthalocyanine blue	147-14-8	0.01	
Talc	14807-96-6	Laminate	0.03	0.61	255		Other	Trade Secret	0.01	
Other	Trade Secret	Laminate	0.01	0.20	85		Silica	Trade Secret	0.02	
Nickel	7440-02-0	Laminate	0.41	9.79	4082		Barium sulfate	7727-43-7	0.77	
Gold	7440-57-5	Laminate	0.09	2.12	885		Talc	14807-96-6	0.08	
Copper	7440-50-8	Laminate	12.44	298.39	124396		Other	Trade Secret	0.03	
Tin	7440-31-5	Solder Ball	20.25	485.86	202548		Nickel	7440-02-0	1.25	
Silver	7440-22-4	Solder Ball	0.63	15.10	6295		Gold	7440-57-5	0.27	
Copper	7440-50-8	Solder Ball	0.11	2.52	1051		Copper	7440-50-8	38.07	
Silver	7440-22-4	Die Attach	0.04	0.84	351		Total 100.00			
Tetramethylene dimethacrylate	2082-81-7	Die Attach	0.00	0.06	25					
Acrylic Esters	Trade Secret	Die Attach	0.00	0.00	2	503.48	(mg) Total	Solder Ball	% of Total Weight	20.99
Silicon	Trade Secret	Die	0.84	20.10	8379		Tin	7440-31-5	96.50	
Copper	7440-50-8	Wire Bonding	0.12	2.93	1220		Silver	7440-22-4	3.00	
Palladium	7440-05-3	Wire Bonding	0.00	0.06	26		Copper	7440-50-8	0.50	
TOTALS:			100.00	2398.74	1,000,000	Total 100.00				
2398.74 mg Total Mass										
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0.90	(mg) Total	Die Attach	% of Total Weight	0.04						
	Silver	7440-22-4	93.00							
	Tetramethylene dimethacrylate	2082-81-7	6.50							
	Acrylic Esters	Trade Secret	0.50							
					Total 100.00					
20.10	(mg) Total	Die	% of Total Weight	0.84						
	Silicon	Trade Secret	100.00							
					Total 100.00					
2.99	(mg) Total	Wire Bonding	% of Total Weight	0.12						
	Copper	7440-50-8	97.90							
	Palladium	7440-05-3	2.10							
2398.74					Total 100.00					
					100.00					

