



Semiconductor Device Type: P (D2X) 014 PDIP .300in Matte Tin				Termination Base Alloy: Copper Alloy (Cu)			Package Homogeneous Materials			JEDEC 97 Product Marking and/or Pkg. Labeling e3
Basic Substance	CAS Number	"Contained in" Sub-Component	% Total Weight	mg/part	ppm	760.73	(mg) Total	Mold Compound	% of Total Weight	79.8
Fused Silica	60676-86-0	Mold Compound	57.456	547.728	574,560		Fused Silica	60676-86-0	72.00	
Metal Hydro Oxide	Trade Secret	Mold Compound	8.778	83.681	87,780		Metal Hydro Oxide	Trade Secret	11.00	
Epoxy Resin	Trade Secret	Mold Compound	5.586	53.251	55,860		Epoxy Resin	Trade Secret	7.00	
Phenol Resin	Trade Secret	Mold Compound	5.586	53.251	55,860		Phenol Resin	Trade Secret	7.00	
SiO2	14808-60-7	Mold Compound	1.995	19.018	19,950		SiO2	14808-60-7	2.50	
Carbon Black	1333-86-4	Mold Compound	0.399	3.804	3,990		Carbon Black	1333-86-4	0.50	
Copper	7440-50-8	Lead Frame	10.031	95.630	100,314		Total 100.00			
Iron	7439-89-6	Lead Frame	0.247	2.352	2,468	100.10	(mg) Total	Lead Frame	% of Total Weight	10.5
Silver	7440-22-4	Lead Frame	0.200	1.907	2,000		Copper	7440-50-8	95.54	
Zinc	7440-66-6	Lead Frame	0.013	0.125	131		Iron	7439-89-6	2.35	
Phosphorous	7723-14-0	Lead Frame	0.009	0.083	87		Silver	7440-22-4	1.91	
Silver	7440-22-4	Die Attach	0.550	5.245	5,502		Zinc	7440-66-6	0.13	
Epoxy Resin	9003-36-5	Die Attach	0.110	1.049	1,100		Phosphorous	7723-14-0	0.08	
Diluent	3101-60-8	Die Attach	0.055	0.524	550		Total 100.00			
Phenolic hardener	Trade secret	Die Attach	0.022	0.209	220	7.15	(mg) Total	Die Attach	% of Total Weight	0.75
Amine type hardener	827-43-0	Die Attach	0.011	0.105	110		Silver	7440-22-4	73.36	
Dicyandiamide	461-58-5	Die Attach	0.002	0.017	18		Epoxy Resin	9003-36-5	14.67	
Silicon	7440-21-3	Chip (Die)	7.500	71.498	75,000		Diluent	3101-60-8	7.33	
Copper	7440-50-8	Wire Bond Copper palladium coated (CuPd)	0.197	1.873	1,965		Phenolic hardener	Trade secret	2.93	
Palladium	7440-05-3	Wire Bond Copper palladium coated (CuPd)	0.004	0.033	35		Amine type hardener	827-43-0	1.47	
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	1.250	11.916	12,500		Dicyandiamide	461-58-5	0.24	
0.9533 g Total Mass			TOTALS:	100.000	953.300	1,000,000	Total 100.00			
This semiconductor device and its homogenous materials comply with EU Directives: 2002/95/EC (27 January 2003) & Directive 2011/65/EU (08 June 2011) and 2015/863/EU (31 March 2015) and 2002/53/EC (End-of-Life Vehicles (ELV) without exemption (zero)						71.50	Total (mg)	Chip (Die)	% of Total Weight	7.5
Compliance with the above EU Directives has been verified via internal design controls, supplier declarations, and /or analytical test data.							Doped Silicon	7440-21-3	100.00	
If a chemical substance is absent from the list above, the chemical substance is NOT an intentional ingredient in the semiconductor device and, to the best of Microchip Technology Incorporated's knowledge and belief as of the date of this document, there is no credible reason to believe that the unavoidable impurity concentration of the chemical substance, if any, is not below the threshold of regulatory concern for any regulatory scheme world-wide.						Total 100.00				
Molding compounds used by Microchip meet the UL94 V0 flammability standard for plastics. You can access the UL IQTM family of databases to obtain a test report at http://ul.com/global/eng/pages/offerings/industries/chemicals/plastics/						1.91	(mg) Total	Wire Bond Copper palladium coated (CuPd)	% of Total Weight	0.2
The protective "tubes" in which the specific product is shipped are made from polyvinyl chloride (PVC) plastic. "Window envelopes" used to hold the packing slip on the outer box and certain "reels" may be made from PVC plastic.							Copper	7440-50-8	98.25	
Microchip Technology Incorporated believes the information in this form concerning substances restricted by RoHS in Microchip Technology Incorporated's semiconductor devices in their original packing materials is true and correct to the best of its knowledge and belief, as of the date listed in this form. Microchip Technology Incorporated cannot guarantee the completeness and accuracy of data in this form because it has been compiled based on the ranges provided in Material Safety Data Sheets provided by raw material suppliers. Supplier information is often protected from disclosure as trade secrets and some information may not have been provided by subcontract assemblers and raw material suppliers. Information is provided only as estimates of the average weight of these parts and the average weight of anticipated significant toxic metals components. These estimates do not include trace levels of dopants, metals, and non-metal materials contained within silicon devices (silicon IC) in the finished parts.							Palladium	7440-05-3	1.75	
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Microchip disclaims any duty to notify users of updates or changes to Material Content Declarations and shall not be liable for any damages, direct or indirect, consequential or otherwise, suffered by users or third parties as a result of the users' reliance on the information in Material Content Declarations (MCD) or independent third party test reports (SGS) or of this Certificate of Compliance for semiconductor products.						11.92	(mg) Total	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	% of Total Weight	1.25
Assembled package referenced above is EU REACH compliant based on the latest SVHC candidate list of ECHA which can be found at http://echa.europa.eu/web/guest/candidate-list-table							Tin	7440-31-5	100.00	
						Total 100.00				
						953.300				100.000