Semiconductor Device Type: P (D6X) 016 PDIP (Small Outline - .300in) Matte Tin

Termination Base Alloy: Copper Alloy (Cu)

Basic Substance	CAS Number	"Contained In" Sub-Component	% Total Weight	mg/part	ppm
Fused Silica	60676-86-0	Mold Compound	57.456	639.313	574,560
Metal Hydro Oxide	Trade Secret	Mold Compound	8.778	97.673	87,780
Epoxy Resin	Trade Secret	Mold Compound	5.586	62.155	55,860
Phenol Resin	Trade Secret	Mold Compound	5.586	62.155	55,860
SiO2	14808-60-7	Mold Compound	1.995	22.198	19,950
Carbon Black	1333-86-4	Mold Compound	0.399	4.440	3,990
Copper	7440-50-8	Lead Frame	10.031	111.620	100,314
Iron	7439-89-6	Lead Frame	0.247	2.746	2,468
Silver	7440-22-4	Lead Frame	0.200	2.226	2,000
Zinc	7440-66-6	Lead Frame	0.013	0.146	131
Phosphorous	7723-14-0	Lead Frame	0.009	0.096	87
Silver	7440-22-4	Die Attach	0.563	6.259	5,625
Diester Resin	94-80-4	Die Attach	0.113	1.252	1,125
Functionalized Urethane Resin	72869-86-4	Die Attach	0.038	0.417	375
Epoxy Resin	9003-36-5	Die Attach	0.019	0.209	188
Epoxy Resin	13561-08-5	Die Attach	0.019	0.209	188
Silicon	7440-21-3	Chip (Die)	7.500	83.453	75,000
Copper	7440-50-8	Wire Bond Copper palladium coated (CuPd)	0.197	2.186	1,965
Palladium	7440-05-3	Wire Bond Copper palladium coated (CuPd)	0.004	0.039	35
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	1.250	13.909	12,500
		TOTALS:	100.000	1,112.700	1,000,000

1.1127 g Total Mass

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)

Compliance with the above EU Directives has been verified via internal design controls, supplier declarations, and /or analytical test data.

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.

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/

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.

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.

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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

Package Homogeneous Materials				JEDEC 97 Product Marking and/or Pkg. Labeling e3
887.93	(mg) Total	Mold Compound	% ot Total Weight	79.8
	Fused Silica	60676-86-0	72.00	
	Metal Hydro Oxide	Trade Secret	11.00	
	Epoxy Resin	Trade Secret	7.00	
	Phenol Resin	Trade Secret	7.00	
	SiO2	14808-60-7	2.50	
	Carbon Black	1333-86-4	0.50	
		Total	100.00	
116.83	(mg) Total	Lead Frame	% of Total Weight	10.5
	Copper	7440-50-8	95.54	
	Iron	7439-89-6	2.35	
	Silver	7440-22-4	1.91	
	Zinc	7440-66-6	0.13	
	Phosphorous	7723-14-0	0.08	
		Total	100.00	
8.35	(mg) Total	Die Attach	% of Total Weight	0.75
	Silver	7440-22-4	75.00	
	Diester Resin	94-80-4	15.00	
	Functionalized Urethane Resin	72869-86-4	5.00	
	Epoxy Resin	9003-36-5	2.50	
	Epoxy Resin	13561-08-5	2.50	
		Total	100.00	
83.45	Total (mg)	Chip (Die)	% of Total Weight	7.5
	Doped Silicon	7440-21-3	100	
		Total	100.00	
2.23	(mg) Total	Wire Bond Copper palladium coated (CuPd)	% of Total Weight	0.2
	Copper	7440-50-8	98	
	Palladium	7440-05-3	2	
		Total	100.00	
13.91	(mg) Total	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	% of Total Weight	1.25
	Tin	7440-31-5	100.00	
		Total	100.00	
1,112.700				100.000