MICROCHIP

Semiconductor Device Type: H7A 006 VDFN 3.2x5.0x0.9mm NiPdAu

Termination Base Alloy: Copper Alloy (Cu)

Basic Substance	CAS Number	"Contained In" Sub-Component	% Total Weight	mg/part	ppm
Silica, vitreous (or fused)	60676-86-0	Mold Compound	39.585	16.032	395,845
Epoxy Resin	Trade Secret	Mold Compound	3.958	1.603	39,585
Phenolic Resin	Trade Secret	Mold Compound	1.630	0.660	16,300
Silica, vitreous (or fused)	7631-86-9	Mold Compound	1.257	0.509	12,574
Carbon Black	1333-86-4	Mold Compound	0.140	0.057	1,397
Copper	7440-50-8	Lead Frame	45.079	18.257	450,791
Iron	7439-89-6	Lead Frame	1.066	0.432	10,656
Zinc (Metal)	7440-66-0	Lead Frame	0.116	0.047	1,158
Phosphorous	7723-14-0	Lead Frame	0.069	0.028	695
Silica Fused	60676-86-0	Die Attach 1	0.388	0.157	3,879
Epoxy Resin	120206-26-0	Die Attach 1	0.115	0.046	1,148
Poly(Bisphenol A-co-epichlorohydrin)	25068-38-6	Die Attach 1	0.087	0.035	874
Silver	7440-22-4	Die Attach 2	0.367	0.148	3,666
Acrylic Resin	Trade secret	Die Attach 2	0.103	0.042	1,034
Doped Silicon	7440-21-3	Chip (Die) 1	2.590	1.049	25,900
Doped Silicon	7440-21-3	Chip (Die) 2	1.580	0.640	15,800
Doped Gold	7440-57-5	Wire Bond 1	0.360	0.146	3,600
Doped Gold	7440-57-5	Wire Bond 2	0.150	0.061	1,500
Nickel	7440-02-0	Plating on external leads (pins)	1.281	0.519	12,814
Palladium	7440-05-3	Plating on external leads (pins)	0.049	0.020	491
Gold	7440-57-5	Plating on external leads (pins)	0.030	0.012	295
		TOTALS:	**100.000**	**40.500**	**1,000,000**

0.0405 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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Package Homogeneous Materials

J-STD-609A Product Marking and/or Pkg. Labeling e3

18.86	**(mg) Total**	**Mold Compound**	**% ot Total Weight**	**46.57**
	Silica, vitreous (or fused)	60676-86-0	85.00	
	Epoxy Resin	Trade Secret	8.50	
	Phenolic Resin	Trade Secret	3.50	
	Silica, vitreous (or fused)	7631-86-9	2.70	
	Carbon Black	1333-86-4	0.30	
		Total	**100.00**	
18.76	**(mg) Total**	**Lead Frame**	**% of Total Weight**	**46.33**
	Copper	7440-50-8	97.30	
	Iron	7439-89-6	2.30	
	Zinc (Metal)	7440-66-0	0.25	
	Phosphorous	7723-14-0	0.15	
		Total	**100.00**	
0.24	**(mg) Total**	**Die Attach 1**	**% of Total Weight**	**0.59**
	Silica Fused	60676-86-0	65.74	
	Epoxy Resin	120206-26-0	19.45	
	Poly(Bisphenol A-co-epichlorohydrin)	25068-38-6	14.81	
		Total	**100.00**	
0.19	**(mg) Total**	**Die Attach 2**	**% of Total Weight**	**0.47**
	Silver	7440-22-4	78.00	
	Acrylic Resin	Trade secret	22.00	
		Total	**100.00**	
1.05	**Total (mg)**	**Chip (Die) 1**	**% of Total Weight**	**2.59**
	Doped Silicon	7440-21-3	100	
		Total	**100.00**	
0.64	**Total (mg)**	**Chip (Die) 2**	**% of Total Weight**	**1.58**
	Doped Silicon	7440-21-3	100	
		Total	**100.00**	
0.15	**(mg) Total**	**Wire Bond 1**	**% of Total Weight**	**0.36**
	Doped Gold	7440-57-5	100.00	
		Total	**100.00**	
0.06	**(mg) Total**	**Wire Bond 2**	**% of Total Weight**	**0.15**
	Doped Gold	7440-57-5	100	
		Total	**100.00**	
0.55	**(mg) Total**	**Plating on external leads (pins)**	**% of Total Weight**	**1.36**
	Nickel	7440-02-0	94.22	
	Palladium	7440-05-3	3.61	
	Gold	7440-57-5	2.17	
		Total	**100.00**	
40.500				**100.00**