MICROCHIP

Semiconductor Device Type: (Q2A) 064_VQFN 8x8x0.9mm MatteTin

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	44.896	79.690	448,961
Epoxy Resin 1	Trade Secret	Mold Compound	3.297	5.853	32,975
Phenol Resin	Trade Secret	Mold Compound	2.410	4.277	24,097
Carbon Black	1333-86-4	Mold Compound	0.127	0.225	1,268
Copper	7440-50-8	Lead Frame	42.849	76.056	428,486
Iron	7439-89-6	Lead Frame	1.054	1.871	10,540
Silver	7440-22-4	Lead Frame	0.854	1.517	8,544
Zinc	7440-66-6	Lead Frame	0.056	0.100	561
Phosphorous	7723-14-0	Lead Frame	0.037	0.066	370
Silver	7440-22-4	Die Attach	0.200	0.355	2,002
Acrylic Resin	Trade secret	Die Attach	0.036	0.065	364
Epoxy Resin	Trade secret	Die Attach	0.023	0.042	234
Silicon	7440-21-3	Chip (Die)	1.810	3.213	18,100
Copper	7440-50-8	Wire Bond Copper palladium coated (CuPd)	0.501	0.889	5,011
Palladium	7440-05-3	Wire Bond Copper palladium coated (CuPd)	0.009	0.016	89
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	1.840	3.266	18,400
		TOTALS:	**100.000**	**177.500**	**1,000,000**

0.1775 g Total Mass

Package Homogeneous Materials

90.05	(mg) Total	Mold Compound	% ot Total Weight	50.73
	Fused Silica	60676-86-0	88.50	
	Epoxy Resin 1	Trade Secret	6.50	
	Phenol Resin	Trade Secret	4.75	
	Carbon Black	1333-86-4	0.25	
		Total	**100.00**	
79.61	**(mg) Total**	**Lead Frame**	**% of Total Weight**	**44.85**
	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**	
0.46	**(mg) Total**	**Die Attach**	**% of Total Weight**	**0.26**
	Silver	7440-22-4	77.00	
	Acrylic Resin	Trade secret	14.00	
	Epoxy Resin	Trade secret	9.00	
		Total	**100.00**	
3.21	**Total (mg)**	**Chip (Die)**	**% of Total Weight**	**1.81**
	Doped Silicon	7440-21-3	100.00	
		Total	**100.00**	
0.91	**(mg) Total**	**Wire Bond Copper palladium coated (CuPd)**	**% of Total Weight**	**0.51**
	Copper	7440-50-8	98.25	
	Palladium	7440-05-3	1.75	
		Total	**100.00**	
3.27	**(mg) Total**	**Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour**	**% of Total Weight**	**1.84**
	Tin	7440-31-5	100.00	
		Total	**100.00**	
177.500				**100.00**

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

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.

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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