Semiconductor Device Type: LSC 016 VQFN 3x3x1mm Matte Tin

Basic Substance	CAS Number	"Contained In" Sub-Component	% Total Weight	mg/part	ppm
			Termination Base Alloy: Copper Alloy (Cu)		
Fused Silica	60676-86-0	Mold Compound	45.569	19.777	455,687
Epoxy Resin 1	Trade Secret	Mold Compound	3.347	1.453	33,469
Phenol Resin	Trade Secret	Mold Compound	2.446	1.061	24,458
Carbon Black	1333-86-4	Mold Compound	0.129	0.056	1,287
Copper	7440-50-8	Lead Frame	41.177	17.871	411,767
Iron	7439-89-6	Lead Frame	1.013	0.440	10,129
Silver	7440-22-4	Lead Frame	0.821	0.356	8,211
Zinc	7440-66-6	Lead Frame	0.054	0.023	539
Phosphorous	7723-14-0	Lead Frame	0.036	0.015	356
SiO2	14808-60-7	Die Attach	0.104	0.045	1,042
Epoxy Resin	Basic Duromer	Die Attach	0.053	0.023	526
Acrylic copolymer resin	Basic Duromer	Die Attach	0.032	0.014	316
Phenolic Resin	Basic Duromer	Die Attach	0.032	0.014	316
Silicon	7440-21-3	Chip (Die)	3.500	1.519	35,000
Copper	7440-50-8	Wire Bond Copper palladium coated (CuPd)	0.098	0.043	983
Palladium	7440-05-3	Wire Bond Copper palladium coated (CuPd)	0.002	0.001	18
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	1.590	0.690	15,900
		TOTALS:	100.000	43.400	1,000,000

0.0434 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 2000/53/EC and 2016/774/EU (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://iq.ul.com/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

				J-STD-609A Product Marking and/or Pkg. Labeling e3
22.35	**(mg) Total**	**Mold Compound**	**% ot Total Weight**	**51.49**
	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**	
18.71	**(mg) Total**	**Lead Frame**	**% of Total Weight**	**43.1**
	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**	
0.10	**(mg) Total**	**Die Attach**	**% of Total Weight**	**0.22**
	SiO2	14808-60-7	47.38	
	Epoxy Resin	Basic Duromer	23.92	
	Acrylic copolymer resin	Basic Duromer	14.35	
	Phenolic Resin	Basic Duromer	14.35	
		Total	**100.00**	
1.52	**Total (mg)**	**Chip (Die)**	**% of Total Weight**	**3.5**
	Doped Silicon	7440-21-3	100.00	
		Total	**100.00**	
0.04	**(mg) Total**	**Wire Bond Copper palladium coated (CuPd)**	**% of Total Weight**	**0.10**
	Copper	7440-50-8	98.25	
	Palladium	7440-05-3	1.75	
		Total	**100.00**	
0.69	**(mg) Total**	**Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour**	**% of Total Weight**	**1.59**
	Tin	7440-31-5	100.00	
		Total	**100.00**	
43.400				**100.000**