Compliant with IEC 62474/ D9.00

MICROCHIP  Semiconductor Device Type: PH (R9X) 144 TQFP 16x16x1mm Matte Tin			Termination Base Alloy: Copper Alloy (Cu)			Package Homogeneous Materials: 8.1 Electronics (e.g. pc boards, displays)				JEDEC 97 Product Marking and/or Pkg. Labeling e3
		"Contained In"	% I otal			467.72	(mg) Total	Mold Compound	% ot Total Weight	68.23
Basic Substance	CAS Number	Sub-Component	Weight	mg/part	ppm	407.72	,	·		00.23
Silica, vitreous (or fused)	60676-86-0	Mold Compound	57.996	397.559	579,955		Silica, vitreous (or fused)	60676-86-0	85.00	
Epoxy Resin Phenolic Resin	Trade Secret Trade Secret	Mold Compound  Mold Compound	5.936 4.094	40.691 28.063	59,360 40.938	l	Epoxy Resin Phenolic Resin	Trade Secret Trade Secret	8.70 6.00	
Carbon Black	1333-86-4	Mold Compound	0.205	1.403	2,047	ł	Carbon Black	1333-86-4	0.30	
Copper	7440-50-8	Lead Frame	26,955	184,775	269.547		Odrbori Black	Total	100.00	
Tin	7440-31-5	Lead Frame	0.069	0.474	692	189.68	(mg) Total	Lead Frame	% of Total Weight	27.67
Silver	7440-22-4	Lead Frame	0.527	3.613	5,271		Copper	7440-50-8	97.42	
Zinc	7440-66-6	Lead Frame	0.050	0.341	498		Tin	7440-31-5	0.25	
Chromium	7440-47-3	Lead Frame	0.069	0.474	692	1	Silver	7440-22-4	1.91	
Silver (Ag)	7440-22-4	Die Attach	0.423	2.902	4,233	1	Zinc	7440-66-6	0.18	
ANHYDRIDE	Trade Secret	Die Attach	0.046	0.315	459	]	Chromium	7440-47-3	0.25	
EPOXY RESIN	Trade Secret	Die Attach	0.041	0.280	408			Total	100.00	
Silicon	7440-21-3	Chip (Die)	2.090	14.327	20,900	3.50	(mg) Total	Die Attach	% of Total Weight	0.51
Doped Gold	7440-57-5	Wire Bond	0.280	1.919	2,800	1	Silver (Ag)	7440-22-4	83.00	
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	1.220	8.363	12,200		ANHYDRIDE	Trade Secret	9.00	
		TOTALS:	100.000	685.500	1,000,000		EPOXY RESIN	Trade Secret	8.00	
		g Total Mass						Total	100.00	
<ol> <li>and 2002/53/EC (End-of-Life Vehicles (ELV) without exemption ( mpliance with the above EU Directives has been verified via interna-</li> </ol>	zero) al design control:	s, supplier declarations, and /or analytical test data.	ŕ		•	14.33	(mg) Total  Doped Silicon	Chip (Die) 7440-21-3 Total	% of Total Weight 100 100.00	2.09
s semiconductor device and its homogenous materials comply wit 5) and 2002/53/EC (End-of-Life Vehicles (ELV) without exemption ( mpliance with the above EU Directives has been verified via internation of the complete of the chemical substance is absent from the list above, the chemical superporated's knowledge and belief as of the date of this document, to below the threshold of regulatory concern for any regulatory services.	zero) al design control: bstance is NOT a there is no credil	s, supplier declarations, and /or analytical test data.  In intentional ingredient in the semiconductor device and, ble reason to believe that the unavoidable impurity concen	to the best o	f Microchip Te	chnology	14.33	1	7440-21-3	100	2.09
5) and 2002/53/EC (End-of-Life Vehicles (ELV) without exemption (npliance with the above EU Directives has been verified via international substance is absent from the list above, the chemical subprorated's knowledge and belief as of the date of this document, of below the threshold of regulatory concern for any regulatory soding compounds used by Microchip meet the UL94 V0 flammabilit	zero) al design control bstance is NOT a there is no credit heme world-wide y standard for pl	s, supplier declarations, and /or analytical test data. In intentional ingredient in the semiconductor device and, ole reason to believe that the unavoidable impurity concents.	to the best o	f Microchip Te	chnology	1.92	1	7440-21-3	100	0.28
5) and 2002/53/EC (End-of-Life Vehicles (ELV) without exemption (mpliance with the above EU Directives has been verified via international substance is absent from the list above, the chemical supprorated's knowledge and belief as of the date of this document,	zero) al design control: bstance is NOT a there is no credit heme world-wide y standard for pl /	s, supplier declarations, and /or analytical test data.  In intentional ingredient in the semiconductor device and, ole reason to believe that the unavoidable impurity concens.  astics. You can access the UL iQTM family of databases to	to the best ontration of the	f Microchip Te chemical sub t report at	echnology stance, if any,		Doped Silicon	7440-21-3  Total  Wire Bond  7440-57-5	100 100.00 % of Total Weight	
5) and 2002/53/EC (End-of-Life Vehicles (ELV) without exemption ( mpliance with the above EU Directives has been verified via interna- chemical substance is absent from the list above, the chemical su orporated's knowledge and belief as of the date of this document, toot below the threshold of regulatory concern for any regulatory so diding compounds used by Microchip meet the UL94 V0 flammabilit s://ul.com/global/eng/pages/offerings/industries/chemicals/plastics protective "tubes" in which the specific product is shipped are m	zero) al design control bstance is NOT a there is no credit heme world-wid y standard for pl / ade from polyvin  brum concerning s towledge and bel compiled based o ome information ne average weigt	s, supplier declarations, and /or analytical test data. In intentional ingredient in the semiconductor device and, ble reason to believe that the unavoidable impurity concents.  astics. You can access the UL iQTM family of databases to apply chloride (PVC) plastic. "Window envelopes" used to how the substances restricted by RoHS in Microchip Technology In itef, as of the date listed in this form. Microchip Technolog in the ranges provided in Material Safety Data Sheets provided in the total substances assemblers as to of anticipated significant toxic metals components. The	to the best on tration of the operation of the operation of the packin accorporated's ylincorporated inded by raw rund raw mater	f Microchip Te chemical sub t report at g slip on the c semiconducted d cannot gual naterial suppli ial suppliers.	echnology stance, if any, outer box and or devices in rantee the iers. Supplier information is		Doped Silicon  (mg) Total	7440-21-3 Total	100 100.00 % of Total Weight	
5) and 2002/53/EC (End-of-Life Vehicles (ELV) without exemption ( mpliance with the above EU Directives has been verified via interna- chemical substance is absent from the list above, the chemical su orporated's knowledge and belief as of the date of this document, tot below the threshold of regulatory concern for any regulatory so diding compounds used by Microchip meet the UL94 V0 flammabilit o://ul.com/global/eng/pages/offerings/industries/chemicals/plastics or protective "tubes" in which the specific product is shipped are m tain "reels" may be made from PVC plastic.  crochip Technology Incorporated believes the information in this foir original packing materials is true and correct to the best of its kn mpleteness and accuracy of data in this form because it has been corraction is often protected from disclosure as trade secrets and so vided only as estimates of the average weight of these parts and it	zero) al design control bstance is NOT a there is no credit heme world-wide y standard for pl / ade from polyvin prm concerning s owledge and bel compeled based to ome information ne average weigh devices (silicon I	s, supplier declarations, and /or analytical test data.  In intentional ingredient in the semiconductor device and, ble reason to believe that the unavoidable impurity concents.  astics. You can access the UL iQTM family of databases to astics. You can access the UL iQTM family of databases to astics. You can access the UL iQTM family of databases to astics. You can access the UL iQTM family of databases to astic elements of the intensity of the same access the UL iQTM family of databases to astic as of the date listed in this form. Microchip Technology In the ranges provided in Material Safety Data Sheets provided you not have been provided by subcontract assemblers and of anticipated significant toxic metals components. The C) in the finished parts.	to the best of the contraction o	f Microchip Te chemical sub t report at g slip on the c semiconduct d cannot gual naterial suppli ial suppliers. do not include usive, limited p	echnology stance, if any, outer box and or devices in antee the iers. Supplier information is a trace levels		Doped Silicon  (mg) Total  Doped Gold	7440-21-3  Total  Wire Bond  7440-57-5	100 100.00 % of Total Weight	
5) and 2002/53/EC (End-of-Life Vehicles (ELV) without exemption ( mpliance with the above EU Directives has been verified via internation of the provided of the provided of the composition of the composi	zero) al design control bstance is NOT a there is no credit heme world-wid y standard for pl d ade from polyvin prom concerning s prowledge and bel compiled based c ome information he average weigh devices (silicon l express or implied bsidiaries are co	s, supplier declarations, and /or analytical test data.  In intentional ingredient in the semiconductor device and, ole reason to believe that the unavoidable impurity concents.  astics. You can access the UL iQTM family of databases to astics. You can access the UL iQTM family of databases to apply chloride (PVC) plastic. "Window envelopes" used to how the substances restricted by RoHS in Microchip Technology in the ranges provided in Material Safety Data Sheets provided in Material Safety Data Sheets provided by subcontract assemblers and of anticipated significant toxic metals components. The C) in the finished parts.  In with respect to the information provided in this declarationtained in Microchip's standard terms and conditions of set the Declarations and shall not be liable for any damages, direct the provide and the same and conditions of set the Declarations and shall not be liable for any damages, direct the conditions and shall not be liable for any damages, direct the conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the provided in the same and conditions of set the same and cond	to the best of the book of the	f Microchip Te chemical sub t report at g slip on the c semiconduct d cannot guar naterial suppli ial suppliers. do not include usive, limited p e provided in	echnology stance, if any, nuter box and or devices in rantee the ers. Supplier Information is trace levels product Microchip's	1.92	Doped Silicon  (mg) Total  Doped Gold	7440-21-3  Total  Wire Bond  7440-57-5  Total  Plating on external leads (pins) - Matter Tin / annealed at 150°C for 1	100 100.00 % of Total Weight 100.00	0.28
5) and 2002/53/EC (End-of-Life Vehicles (ELV) without exemption ( npliance with the above EU Directives has been verified via internation of the properties of the date of this document, or otherwise knowledge and belief as of the date of this document, or below the threshold of regulatory concern for any regulatory so to below the threshold of regulatory concern for any regulatory so ding compounds used by Microchip meet the UL94 V0 flammability. I/ul.com/global/eng/pages/offerings/industries/chemicals/plastics protective "tubes" in which the specific product is shipped are main "reels" may be made from PVC plastic.  Trochip Technology Incorporated believes the information in this for original packing materials is true and correct to the best of its kn pleteness and accuracy of data in this form because it has been or mation is often protected from disclosure as trade secrets and so vided only as estimates of the average weight of these parts and thopants, metals, and non-metal materials contained within silicon crochip Technology Incorporated does not provide any warranty, erranties provided by Microchip Technology Incorporated and its sutations, sales order acknowledgement, and invoices.	zero) al design control bstance is NOT a there is no credit heme world-wid y standard for pl d ade from polyvin brum concerning s owne information ne average weigl devices (silicon l suppress or implied bsidiaries are co	s, supplier declarations, and /or analytical test data. In intentional ingredient in the semiconductor device and, ble reason to believe that the unavoidable impurity concents.  astics. You can access the UL iQTM family of databases to astics. You can access the UL iQTM family of databases to apply chloride (PVC) plastic. "Window envelopes" used to host substances restricted by RoHS in Microchip Technology In lief, as of the date listed in this form. Microchip Technology in the ranges provided in Material Safety Data Sheets proving and the value of the provided by subcontract assemblers a lat of anticipated significant toxic metals components. The components of the finished parts.  It with respect to the information provided in this declarational in Microchip's standard terms and conditions of soft Declarations and shall not be liable for any damages, directormation in Material Content Declarations (MCD) or indepressions.	to the best of the book of the	f Microchip Te chemical sub t report at g slip on the c semiconduct d cannot guar naterial suppli ial suppliers. do not include usive, limited p e provided in	echnology stance, if any, nuter box and or devices in rantee the ers. Supplier Information is trace levels product Microchip's	1.92	Doped Silicon  (mg) Total  Doped Gold  (mg) Total	7440-21-3  Total  Wire Bond  7440-57-5  Total  Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	100 100.00 % of Total Weight 100.00 100.00 % of Total Weight	0.28

Au 2:25 PM : 8/17/2015