Compliant with IEC 62474/ D9.00 Compliant to IEC 61249-2-21:2003

MICROCHIP  Semiconductor Device Type: SL / F / TF (D7X) 016 SOIC .150in Matte Tin				Termination Base Alloy: Copper Alloy (Cu)			Package Homogeneous Materials: 8.1 Electronics (e.g. pc boards, displays)			
		"Contained In"	% Total	I		60.00	(mg) Total	Mold Compound	% ot Total Weight	e3 38.12
Basic Substance	CAS Number	Sub-Component	Weight	mg/part	ppm			•	·	1
Silica, vitreous	60676-86-0	Mold Compound	32.402	51.001	324,020		Silica, vitreous	60676-86-0	85.00	
Epoxy Resin (No bromine, No diantimony trioxide)  Phenolic Resin (No Br / CL SbO3, No diantimony trioxide)	Trade Secret Trade Secret	Mold Compound  Mold Compound	2.335 2.335	3.675 3.675	23,349 23,349		Epoxy Resin Phenolic Resin	Trade Secret Trade Secret	6.13 6.13	
Epoxy, Cresol Novolac	29690-82-2	Mold Compound	0.934	1.470	9,339		Epoxy, Cresol Novolac	29690-82-2	6.13 2.45	
Carbon Black	1333-86-4	Mold Compound	0.934	0.180	1.144		Carbon Black	1333-86-4	0.30	
Copper	7440-50-8	Lead Frame	24.276	38.211	242,761		Calboll black	Total	100.00	<u>J</u>
Iron	7439-89-6	Lead Frame	0.597	0.940	5.971	40.00	(mg) Total	Lead Frame	% of Total Weight	25.41
	7440-22-4		0.397	0.762	- 1 -	40.00		7440-50-8		23.41
Silver Zinc	7440-22-4	Lead Frame Lead Frame	0.464	0.762	4,841 318		Copper	7440-50-8 7439-89-6	95.54 2.35	
Zinc Phosphorous	7723-14-0	Lead Frame	0.032	0.050	210		Silver	7439-89-6 7440-22-4	2.35 1.91	
Silver	7440-22-4	Die Attach	2.618	4.120	26.175		Zinc	7440-22-4	0.13	
Diester Resin	94-80-4	Die Attach	0.524	0.824	5,235		Phosphorous	7723-14-0	0.13	
Functionalized Urethane Resin	72869-86-4	Die Attach	0.324	0.824	1.745		Priospriorous	7723-14-0 Total		l
					.,					
Epoxy Resin	9003-36-5	Die Attach	0.087	0.137	873	5.49	(mg) Total	Die Attach	% of Total Weight	3.49
Epoxy Resin	13561-08-5	Die Attach	0.087	0.137	873		Silver	7440-22-4	75.00	
Silicon	7440-21-3	Chip (Die)	3.180	5.005	31,800	_	Diester Resin	94-80-4	15.00	
Gold	7440-57-5	Wire Bond	1.210	1.905	12,100	Fun	ctionalized Urethane Resin	72869-86-4	5.00	
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	28.590	45.001	285,900		Epoxy Resin	9003-36-5	2.50	
		TOTALS:	100.000	157.400	1,000,000		Epoxy Resin	13561-08-5	2.50	
	0 157 <i>1</i>	w Tatal Mass						Total	100.00	
	with EU Directives:	g Total Mass: 2002/95/EC (27 January 2003) & Directive 2011/65/EU (0	3 June 2011) ar	nd 2015/863/EU	J (31 March	5.01	Total (mg)	1		3 18
and 2002/53/EC (End-of-Life Vehicles (ELV) without exempti pliance with the above EU Directives has been verified via int	y with EU Directives: on (zero) ernal design contro	2002/95/EC (27 January 2003) & Directive 2011/65/EU (0) Is, supplier declarations, and /or analytical test data.				5.01	Total (mg)  Doped Silicon	Chip (Die) 7440-21-3	% of Total Weight	
and 2002/53/EC (End-of-Life Vehicles (ELV) without exempti- oliance with the above EU Directives has been verified via int nemical substance is absent from the list above, the chemica porated's knowledge and belief as of the date of this docume is not below the threshold of regulatory concern for any regu- ing compounds used by Microchip meet the UL94 V0 flamma	with EU Directives: on (zero)  ernal design control al substance is NOT ent, there is no credi alatory scheme work ability standard for p	2002/95/EC (27 January 2003) & Directive 2011/65/EU (0) Is, supplier declarations, and /or analytical test data. an intentional ingredient in the semiconductor device and ble reason to believe that the unavoidable impurity conceld-wide.	, to the best of ntration of the	Microchip Teo	chnology	1.90		Chip (Die)	% of Total Weight	
and 2002/53/EC (End-of-Life Vehicles (ELV) without exempti- oliance with the above EU Directives has been verified via intendical substance is absent from the list above, the chemical porated's knowledge and belief as of the date of this docume is not below the threshold of regulatory concern for any regulatory conce	with EU Directives: on (zero) ernal design contro al substance is NOT ent, there is no credi latory scheme work bility standard for p	2002/95/EC (27 January 2003) & Directive 2011/65/EU (0) Is, supplier declarations, and /or analytical test data. an intentional ingredient in the semiconductor device and ble reason to believe that the unavoidable impurity conced-wide.  lastics. You can access the UL iQTM family of databases the semiconductor device and	, to the best of ntration of the o obtain a test	Microchip Tec chemical subs report at	chnology stance, if		Doped Silicon	Chip (Die) 7440-21-3 Total Wire Bond 7440-57-5	% of Total Weight 100.00 100.00 % of Total Weight	
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5) and 2002/53/EC (End-of-Life Vehicles (ELV) without exempting pliance with the above EU Directives has been verified via into chemical substance is absent from the list above, the chemical substance is absent from the list above, the chemical reporated's knowledge and belief as of the date of this docume is not below the threshold of regulatory concern for any regulating compounds used by Microchip meet the UL94 V0 flamma://ul.com/global/eng/pages/offerings/industries/chemicals/plasprotective "tubes" in which the specific product is shipped are ain "reels" may be made from PVC plastic.  Tochip Technology Incorporated believes the information in the roriginal packing materials is true and correct to the best of it ipleteness and accuracy of data in this form because it has be rmation is often protected from disclosure as trade secrets an rided only as estimates of the average weight of these parts a	with EU Directives: on (zero) sernal design control substance is NOT ent, there is no credical actory scheme work shilling standard for patics/ se made from polyving is form concerning; is knowledge and be en compiled based of some information and the average weight on devices (silicon y, express or implies a subsidiaries are consistent on the content of the substandard in the substandard i	2002/95/EC (27 January 2003) & Directive 2011/65/EU (0) ls, supplier declarations, and /or analytical test data. an intentional ingredient in the semiconductor device and ble reason to believe that the unavoidable impurity conceit-wide.  lastics. You can access the UL iQTM family of databases to lastics. You can access the UL iQTM family of databases to lastics. You can access the UL iQTM family of databases to lastics. You can access the UL iQTM family of databases to lastic some seminary of the lastic substances restricted by RoHS in Microchip Technology In lifer, as of the date listed in this form. Microchip Technologon the ranges provided in Material Safety Data Sheets promay not have been provided by subcontract assemblers that of anticipated significant toxic metals components. The IC) in the finished parts.  d, with respect to the information provided in this declaration and in Microchip's standard terms and conditions of the Declarations and shall not be liable for any damages, dinteresting the provided in Microchip's standard terms and conditions of the Declarations and shall not be liable for any damages, dinteresting the seminary to the liable for any damages, dinteresting the seminary to the liable for any damages, dinteresting the seminary to the lastic seminary to the lastic seminary to the	to the best of ntration of the o obtain a test old the packing ncorporated's by Incorporated by raw materise estimates defined. The exclusiale. These are rect or indirect	Microchip Tec chemical subs report at slip on the ou semiconducto d cannot guara aterial supplie lo not include sive, limited pi provided in N	chnology stance, if uter box and or devices in antee the ers. Supplier formation is trace levels roduct ficrochip's	1.90	Doped Silicon  (mg) Total  Doped Gold	Chip (Die) 7440-21-3 Total Wire Bond 7440-57-5 Total  Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1	% of Total Weight 100.00 100.00 % of Total Weight 100.00	28.59

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