



Semiconductor Device Type: NHE (P3X) 032 PLCC 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	
Basic Substance	CAS Number	"Contained In" Sub-Component	% Total Weight	mg/part	ppm	677.40	(mg) Total	Mold Compound	% of Total Weight	60
Silica, vitreous	60676-86-0	Mold Compound	51.000	575.790	510,000		Silica, vitreous	60676-86-0	85.00	
Epoxy Resin (No bromine, No diantimony trioxide)	Trade Secret	Mold Compound	3.675	41.491	36,750		Epoxy Resin	Trade Secret	6.13	
Phenolic Resin (No Br / CL SbO3, No diantimony trioxide)	Trade Secret	Mold Compound	3.675	41.491	36,750		Phenolic Resin	Trade Secret	6.13	
Epoxy, Cresol Novolac	29690-82-2	Mold Compound	1.470	16.596	14,700		Epoxy, Cresol Novolac	29690-82-2	2.45	
Carbon Black	1333-86-4	Mold Compound	0.180	2.032	1,800		Carbon Black	1333-86-4	0.30	
Copper ( Cu )	7440-50-8	Lead Frame	29.760	335.990	297,600		<b>Total</b>			<b>100.00</b>
Nickle ( Ni )	7440-02-0	Lead Frame	1.280	14.451	12,800	<b>361.28</b>	<b>(mg) Total</b>	<b>Lead Frame</b>	<b>% of Total Weight</b>	<b>32</b>
Silicon ( Si )	7440-21-3	Lead Frame	0.320	3.613	3,200		Copper ( Cu )	7440-50-8	93.00	
Magnesium ( Mg )	7439-95-4	Lead Frame	0.064	0.723	640		Nickle ( Ni )	7440-02-0	4.00	
Silver (Ag)	7440-22-4	Lead Frame	0.576	6.503	5,760		Silicon ( Si )	7440-21-3	1.00	
Silver (Ag)	7440-22-4	Die Attach	0.064	0.723	640		Magnesium ( Mg )	7439-95-4	0.20	
Epoxy Resin	Trade Secret	Die Attach	0.014	0.154	136		Silver (Ag)	7440-22-4	1.80	
Copper ( Cu )	7440-50-8	Die Attach	0.002	0.027	24		<b>Total</b>			<b>100.00</b>
Silicon	7440-21-3	Chip (Die)	4.820	54.418	48,200	<b>0.90</b>	<b>(mg) Total</b>	<b>Die Attach</b>	<b>% of Total Weight</b>	<b>0.08</b>
Gold	7440-57-5	Wire Bond	0.100	1.129	1,000		Silver (Ag)	7440-22-4	80.00	
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	3.000	33.870	30,000		Epoxy Resin	Trade Secret	17.00	
<b>TOTALS:</b>			<b>100.000</b>	<b>1,129.000</b>	<b>1,000,000</b>		Copper ( Cu )	7440-50-8	3.00	
<b>1.1290 g Total Mass</b>							<b>Total</b>			<b>100.00</b>
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 <a href="http://ul.com/global/eng/pages/offers/industries/chemicals/plastics/">http://ul.com/global/eng/pages/offers/industries/chemicals/plastics/</a>										
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 <a href="http://echa.europa.eu/web/guest/candidate-list-table">http://echa.europa.eu/web/guest/candidate-list-table</a>										
						<b>54.42</b>	<b>Total (mg)</b>	<b>Chip (Die)</b>	<b>% of Total Weight</b>	<b>4.82</b>
							Doped Silicon	7440-21-3	100.00	
						<b>Total</b>			<b>100.00</b>	
						<b>1.13</b>	<b>(mg) Total</b>	<b>Wire Bond</b>	<b>% of Total Weight</b>	<b>0.1</b>
							Doped Gold	7440-57-5	100.00	
						<b>Total</b>			<b>100.00</b>	
						<b>33.87</b>	<b>(mg) Total</b>	<b>Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour</b>	<b>% of Total Weight</b>	<b>3</b>
							Tin	7440-31-5	100.00	
						<b>Total</b>			<b>100.00</b>	
						<b>1,129.000</b>				<b>100.000</b>