

 <b>Package Material Content Declaration</b>							
<b>Package Description</b>	32-Lead, 8 x 20 mm, Plastic Thin Small Outline Package, Type I (TSOP)						
<b>Lead Finish</b>	Matte Tin (Sn)	<b>Package Code / GPC</b>		NLB / TCS			
<b>J-STD-609 Category</b>	e3	<b>Termination Base Alloy:</b>		Copper			
Package Material Declaration							
Material	Substance	CAS #	Weight (mg)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	81.857	96.2	962000	21.95	219489
	Nickel (Ni)	7440-02-0	2.553	3.0	30000	0.68	6845
	Silicon (Si)	7440-21-3	0.511	0.6	6000	0.14	1369
	Magnesium (Mg)	7439-95-4	0.170	0.2	2000	0.05	456
<b>Sub-Total</b>			<b>85.090</b>	<b>100.0</b>	<b>1000000</b>	<b>22.82</b>	<b>228159</b>
Integrated Circuit	Silicon (Si)	7440-21-3	37.147	100.0	1000000	9.96	99605
<b>Sub-Total</b>			<b>37.147</b>	<b>100.0</b>	<b>1000000</b>	<b>9.96</b>	<b>99605</b>
Die Attach	Silver (Ag)	7440-22-4	1.829	72.1	721000	0.49	4903
	Epoxy Resin	9003-36-5	0.495	19.5	195000	0.13	1326
	t-Butyl Phenyl Glycidyl Ether	3101-60-8	0.165	6.5	65000	0.04	442
	Butyl Cellosolve Acetate	112-07-2	0.020	0.8	8000	0.01	54
	Phenolic Resin	92-88-6	0.020	0.8	8000	0.01	54
	Dicyandiamide	461-58-5	0.008	0.3	3000	0.00	20
<b>Sub-Total</b>			<b>2.536</b>	<b>100.0</b>	<b>1000000</b>	<b>0.68</b>	<b>6801</b>
Die Pad Plating	Silver (Ag)	7440-22-4	1.586	100.0	1000000	0.43	4252
<b>Sub-Total</b>			<b>1.586</b>	<b>100.0</b>	<b>1000000</b>	<b>0.43</b>	<b>4252</b>
Bond Wire	Gold (Au)	7440-57-5	0.356	100.0	1000000	0.10	954
<b>Sub-Total</b>			<b>0.356</b>	<b>100.0</b>	<b>1000000</b>	<b>0.10</b>	<b>954</b>
Encapsulation	Silica (Amorphous) A	60676-86-0	168.682	69.2	692000	45.23	452301
	Silica (Amorphous) B	7631-86-9	34.370	14.1	141000	9.22	92160
	Epoxy Resin	Proprietary	22.182	9.1	91000	5.95	59479
	Phenol Resin	Proprietary	17.307	7.1	71000	4.64	46407
	Carbon Black	1333-86-4	1.219	0.5	5000	0.33	3268
<b>Sub-Total</b>			<b>243.761</b>	<b>100.0</b>	<b>1000000</b>	<b>65.36</b>	<b>653614</b>
Terminal Plating	Tin (Sn)	7440-31-5	2.467	100.0	1000000	0.66	6615
<b>Sub-Total</b>			<b>2.467</b>	<b>100.0</b>	<b>1000000</b>	<b>0.66</b>	<b>6615</b>
<b>Total</b>			<b>372.943</b>			<b>100.00</b>	<b>1000000</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 <http://ul.com/global/eng/pages/offering/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.

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>.