Product / Package Information

Package	TSSOP_4.4_EP
Body Size	4.4 mm
Lead Count	16
Terminal Finish	100 Sn
MS Number	MS010727B

Environmental Information

RoHS Compliant	Yes
High Temperature Compliant	Yes
Halogen Free Compliant	Yes
REACH SVHC Compliant	Yes

Materials Declaration

Molding Compound

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Silica	60676-86-0	2.92E-02	86.91	869100	49.52	495230
Thermosets	Epoxy & Phenol Resin	Proprietary	4.29E-03	12.78	127800	7.28	72823
Other inorganic materials	Carbon black	1333-86-4	1.04E-04	0.31	3100	0.18	1766
Subtotal			3.36 E-02	100.00	1000000	56.98	569819

Leadframe

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper	7440-50-8	1.83 E-02	96.20	962000	30.99	309883
Copper & its alloys	Nickel	7440-02-0	5.69 E-04	3.00	30000	0.97	9664
Copper & its alloys	Silicon	7440-21-3	1.23 E-04	0.65	6500	0.21	2094
Copper & its alloys	Magnesium	7439-95-4	2.85 E-05	0.15	1500	0.05	483
Subtotal			1.90 E-02	100.00	1000000	32.21	322123

Internal Leadframe Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	1.90 E-04	100.0	1000000	0.32	3221

External Leadframe Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-31-5	1.26 E-03	100.0	1000000	2.14	21423

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	5.59 E-04	100.0	1000000	0.95	9494

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Doped Silicon	7440-21-3	3.00 E-03	100.0	1000000	5.09	50862

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	1.06 E-03	77.71	777100	1.79	17918
Thermoset	Epichlorohydrin-formaldehyde-phenol copolymer	9003-36-5	4.22 E-05	3.11	31100	0.07	717
Other organic materials	Epoxy resin, epichlorohydrin-dimer fatty acid	68475-94-5	4.22 E-05	3.11	31100	0.07	717
Other organic materials	Butyrolactone, gamma-	96-48-0	4.22 E-05	3.11	31100	0.07	717
Other organic materials	Poly(oxypropylene)diamine	9046-10-0	4.22 E-05	3.11	31100	0.07	717
Other organic materials	2,6-Diglycidyl phenyl allyl ether oligomer	Unassigned	4.22 E-05	3.11	31100	0.07	717
Other organic materials	Organosilane	TS ref# 10001	4.22 E-05	3.11	31100	0.07	717
Other inorganic materials	Copper(II) oxide	1317-38-0	4.22 E-05	3.11	31100	0.07	717
Other organic materials	Epoxy resin modifier	TS ref# 10038	7.06 E-06	0.52	5200	0.012	120
Subtotal			1.36 E-03	100.0	1000000	2.31	23057

	Weight (g)	Percentage (%)	PPM
Package Totals	**5.89 E-02**	**100**	**1000000**

Note: The information provided in this declaration are true to the best of ADI's knowledge.
ADI derived most of the information listed in this declaration from documents provided by third parties, and assumes no liability to any inaccuracy of such information.

ANALOG DEVICES

Product / Package Information

Package	TSSOP_4.4_EP
Body Size	4.4 mm
Lead Count	16
Terminal Finish	NiPdAu
MS Number	MS011094B

Environmental Information

RoHS Compliant	Yes
High Temperature Compliant	Yes
Halogen Free Compliant	Yes
REACH SVHC Compliant	Yes

Materials Declaration

Molding Compound

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Silica	60676-86-0	2.95 E-02	88.00	880000	50.14	501441
Thermosets	Epoxy & Phenol resin	Proprietary	3.86 E-03	11.50	115000	6.55	65529
Other inorganic materials	Carbon black	1333-86-4	1.68 E-04	0.50	5000	0.28	2849
Subtotal			3.36 E-02	100.00	1000000	57	569819

Leadframe

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper	7440-50-8	1.83 E-02	96.20	962000	30.99	309883
Copper & its alloys	Nickel	7440-02-0	5.69 E-04	3.00	30000	0.97	9664
Copper & its alloys	Silicon	7440-21-3	1.23 E-04	0.65	6500	0.21	2094
Copper & its alloys	Magnesium	7439-95-4	2.85 E-05	0.15	1500	0.05	483
Subtotal			1.90 E-02	100.00	1000000	32	322123

Internal/External Leadframe Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Nickel & its alloys	Nickel	7440-02-0	1.32 E-03	90.91	909091	2.24	22404
Precious metals	Palladium	7440-05-3	1.15 E-04	7.91	79051	0.19	1948
Precious metals	Gold	7440-57-5	1.72 E-05	1.19	11858	0.03	292
Subtotal			1.45 E-03	100.00	1000000	2.46	24644

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	5.59 E-04	99.99	1000000	0.95	9494

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Doped Silicon	7440-21-3	3.00 E-03	100	1000000	5.09	50862

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	1.06 E-03	77.71	777100	1.79	17918
Thermoset	Epichlorohydrin-formaldehyde-phenol copolymer	9003-36-5	4.22 E-05	3.11	31100	0.07	717
Other organic materials	Epoxy resin, epichlorohydrin-dimer fatty acid	68475-94-5	4.22 E-05	3.11	31100	0.07	717
Other organic materials	Butyrolactone, gamma-	96-48-0	4.22 E-05	3.11	31100	0.07	717
Other organic materials	Poly(oxypropylene)diamine	9046-10-0	4.22 E-05	3.11	31100	0.07	717
Other organic materials	2,6-Diglycidyl phenyl allyl ether oligomer	Unassigned	4.22 E-05	3.11	31100	0.07	717
Other organic materials	Organosilane	TS ref# 10001	4.22 E-05	3.11	31100	0.07	717
Other inorganic materials	Copper(II) oxide	1317-38-0	4.22 E-05	3.11	31100	0.07	717
Other organic materials	Epoxy resin modifier	TS ref# 10038	7.06 E-06	0.52	5200	0.01	120
Subtotal			1.36 E-03	100.00	1000000	2.31	23057

	Weight (g)	Percentage (%)	PPM
Package Totals	**5.89 E-02**	**100**	**1000000**

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