Product / Package Information

Package	MSOP E (GaAs)
Body Size	
Lead Count	10
Terminal Finish	100Sn
MS Number	

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	1.04 E-02	87.70	877000	43.59	435890
Thermosets	Epoxy Resin	Proprietary	5.93 E-04	5.00	50000	2.49	24851
Thermosets	Phenol Resin	Proprietary	5.93 E-04	5.00	50000	2.49	24851
Thermosets	Epoxy Cresol Novolac	29690-82-2	2.37 E-04	2.00	20000	0.99	9940
Other inorganic materials	Carbon Black	1333-86-4	3.56 E-05	0.30	3000	0.15	1491
Subtotal			1.19 E-02	100.00	1000000	49.70	497024

Leadframe

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper	7440-50-8	9.06 E-03	97.50	975000	37.99	379880
Copper & its alloys	Iron	7439-89-6	2.18 E-04	2.35	23500	0.92	9156
Copper & its alloys	Zinc	7440-66-6	1.12 E-05	0.12	1200	0.05	468
Copper & its alloys	Phosphorus	7723-14-0	2.79 E-06	0.03	300	0.01	117
Subtotal			9.29 E-03	100.00	1000000	38.96	389621

External Leadframe Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-31-5	7.81 E-04	100.00	1000000	3.27	32734

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	1.95 E-04	99.99	1000000	0.82	8183

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Gallium Arsenide	1303-00-0	7.94 E-04	100.0	1000000	3.33	33284

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	6.54 E-04	70.00	700000	2.74	27408
Other organic materials	Epoxy resin	Proprietary	1.87 E-04	20.00	200000	0.78	7831
Other organic materials	1,4 Bis(2,3-epoxypropoxy)butane	2425-79-8	4.67 E-05	5.00	50000	0.20	1958
Other organic materials	Aromatic Amine	Proprietary	4.67 E-05	5.00	50000	0.20	1958
Subtotal			9.34 E-04	100.00	1000000	3.92	39155

			Weight (g)			Percentage (%)	PPM
Package Totals			**2.39 E-02**			**100.00**	**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	MSOP
Body Size	
Lead Count	10
Terminal Finish	SnPb
MS Number	MS012606C

Environmental Information

RoHS Compliant	No
High Temperature Compliant	No
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 / 7631-86-9 / 14808-60-7	1.12 E-02	88.20	882000	44.55	445469
Thermosets	Epoxy Resin	Proprietary	6.34 E-04	5.00	50000	2.53	25253
Thermosets	Phenol Resin	Proprietary	6.34 E-04	5.00	50000	2.53	25253
Thermosets	Epoxy Cresol Novolac	29690-82-2	1.90 E-04	1.50	15000	0.76	7576
Other inorganic materials	Carbon Black	1333-86-4	3.80 E-05	0.30	3000	0.15	1515
Subtotal			1.27 E-02	100.00	1000000	50.51	505067

Leadframe

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper	7440-50-8	9.60 E-03	96.20	962000	38.25	382540
Copper & its alloys	Nickel	7440-02-0	2.99 E-04	3.00	30000	1.19	11930
Copper & its alloys	Silicon	7440-21-3	6.49 E-05	0.65	6500	0.26	2585
Copper & its alloys	Magnesium	7439-95-4	1.50 E-05	0.15	1500	0.06	596
Subtotal			9.98 E-03	100.00	1000000	39.77	397650

Internal Leadframe Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	1.01 E-04	100.00	1000000	0.40	4017

External Leadframe Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-31-5	5.56 E-04	85.00	850000	2.21	22148
Tin & its alloys	Lead	7439-92-1	9.81 E-05	15.00	150000	0.39	3908
Subtotal			6.54 E-04	100.00	1000000	2.61	26057

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	3.09 E-04	99.99	1000000	1.23	12328

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Gallium Arsenide	1303-00-0	9.98 E-04	100.0	1000000	3.98	39769

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	3.53 E-04	93.00	930000	1.41	14054
Other organic materials	Gamma Butyrolactone	96-48-0	2.66 E-05	7.00	70000	0.11	1058
Subtotal			3.79 E-04	100.00	1000000	1.51	15112

	Weight (g)	Percentage (%)	PPM
Package Totals	**2.51 E-02**	**100.00**	**1000000**

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