Product / Package Information

Package	MSOP
Body Size/Pitch	
Lead Count	10
Terminal Finish	100 Sn

Environmental Compliance 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	1.12 E-02	87.3	873000	44.44	444385
Thermosets	Phenol Resin	Proprietary	5.79 E-04	4.5	45000	2.29	22906
Thermosets	Epoxy Resin 1	Proprietary	3.86 E-04	3.0	30000	1.53	15271
Thermosets	Epoxy Resin 2	Proprietary	3.86 E-04	3.0	30000	1.53	15271
Others	Others	Proprietary	2.57 E-04	2.0	20000	1.02	10181
Other inorganic materials	Carbon Black	1333-86-4	2.57 E-05	0.2	2000	0.10	1018
Subtotal			1.29 E-02	100.0	1000000	51	509032

Leadframe

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper	7440-50-8	9.56 E-03	97.5	975000	37.80	377956
Copper & its alloys	Iron	7439-89-6	2.30 E-04	2.35	23500	0.91	9110
Copper & its alloys	Zinc	7440-66-6	1.18 E-05	0.12	1200	0.05	465
Copper & its alloys	Phosphorus	7723-14-0	2.94 E-06	0.03	300	0.01	116
Subtotal			9.80 E-03	100	1000000	39	387647

Internal Leadframe Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	9.90 E-05	100	1000000	0.39	3916

External Leadframe Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-31-5	6.83 E-04	100	1000000	2.70	27025

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	3.10 E-04	99.99	1000000	1.23	12261

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Doped Silicon	7440-21-3	1.00 E-03	100	1000000	3.96	39552

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	4.19 E-04	80.50	805000	1.66	16556
Other organic materials	Carbocyclic Acrylates	Proprietary	5.20 E-05	10.00	100000	0.21	2057
Other organic materials	Bismaleimide resin	Proprietary	1.56 E-05	3.00	30000	0.06	617
Other organic materials	2-preponoic acid, 2-methyl	68586-19-6	1.56 E-05	3.0	30000	0.06	617
Others	Additive	Proprietary	1.56 E-05	3.0	30000	0.06	617
Other organic materials	Dicumyl peroxide	80-43-3	2.60 E-06	0.5	5000	0.010	103
Subtotal			5.20 E-04	100.00	1000000	2.06	20567

	Weight (g)	Percentage (%)	PPM
Package Totals	**2.53 E-02**	**100**	**1000000**

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ANALOG DEVICES

ADI Proprietary

Product / Package Information

Package	MSOP
Body Size	
Lead Count	10
Terminal Finish	NiPdAu

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	1.12 E-02	87.3	873000	45.67	456728
Thermosets	Phenol Resin	Proprietary	5.79 E-04	4.5	45000	2.35	23543
Thermosets	Epoxy Resin 1	Proprietary	3.86 E-04	3.0	30000	1.57	15695
Thermosets	Epoxy Resin 2	Proprietary	3.86 E-04	3.0	30000	1.57	15695
Others	Others	Proprietary	2.57 E-04	2.0	20000	1.05	10463
Other inorganic materials	Carbon Black	1333-86-4	2.57 E-05	0.2	2000	0.10	1046
Subtotal			1.29 E-02	100.0	1000000	52	523171

Leadframe

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper	7440-50-8	9.53 E-03	97.5	975000	38.74	387414
Copper & its alloys	Iron	7439-89-6	2.30 E-04	2.35	23500	0.93	9338
Copper & its alloys	Zinc	7440-66-6	1.17 E-05	0.12	1200	0.05	477
Copper & its alloys	Phosphorus	7723-14-0	2.93 E-06	0.03	300	0.01	119
Subtotal			9.77 E-03	100	1000000	40	397348

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	1.16 E-04	90.91	927456	0.47	4722
Precious metals	Palladium	7440-05-3	1.01 E-05	7.91	80648	0.04	411
Precious metals	Gold	7440-57-5	1.52 E-06	1.19	12097	0.01	62
Subtotal			1.25 E-04	100.00	1020202	0.52	5194

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	3.10 E-04	99.99	1000000	1.26	12602

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Doped Silicon	7440-21-3	1.00 E-03	100	1000000	4.07	40650

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	4.19 E-04	80.50	805000	1.70	17016
Other organic materials	Carbocyclic Acrylates	Proprietary	5.20 E-05	10.00	100000	0.21	2114
Other organic materials	Bismaleimide resir	Proprietary	1.56 E-05	3.00	30000	0.06	634
Other organic materials	2-preponoic acid, 2-methyl	68586-19-6	1.56 E-05	3.0	30000	0.06	634
Others	Additive	Proprietary	1.56 E-05	3.0	30000	0.06	634
Other organic materials	Dicumyl peroxide	80-43-3	2.60 E-06	0.5	5000	0.01	106
Subtotal			5.20 E-04	100.00	1000000	2.11	21138

	Weight (g)	Percentage (%)	PPM
Package Totals	**2.46 E-02**	**100**	**1000103**

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ANALOG DEVICES

ADI Proprietary

Product / Package Information

Package	MSOP
Body Size	
Lead Count	10
Terminal Finish	SnPb

Environmental Compliance 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	1.12 E-02	87.3	873000	44.44	444385
Thermosets	Phenol Resin	Proprietary	5.79 E-04	4.5	45000	2.29	22906
Thermosets	Epoxy Resin 1	Proprietary	3.86 E-04	3.0	30000	1.53	15271
Thermosets	Epoxy Resin 2	Proprietary	3.86 E-04	3.0	30000	1.53	15271
Others	Others	Proprietary	2.57 E-04	2.0	20000	1.02	10181
Other inorganic materials	Carbon Black	1333-86-4	2.57 E-05	0.2	2000	0.10	1018
Subtotal			1.29 E-02	100.0	1000000	51	509032

Leadframe

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Copper & its alloys	Copper	7440-50-8	9.56 E-03	97.5	975000	37.80	377956
Copper & its alloys	Iron	7439-89-6	2.30 E-04	2.35	23500	0.91	9110
Copper & its alloys	Zinc	7440-66-6	1.18 E-05	0.12	1200	0.05	465
Copper & its alloys	Phosphorus	7723-14-0	2.94 E-06	0.03	300	0.01	116
Subtotal			9.80 E-03	100	1000000	39	387647

Internal Leadframe Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	9.90 E-05	100	1000000	0.39	3916

External Leadframe Plating

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Tin & its alloys	Tin	7440-31-5	5.81 E-04	85	850000	2.30	22971
Tin & its alloys	Lead	7439-92-1	1.02 E-04	15	150000	0.41	4054
Subtotal			6.83 E-04	100	1000000	2.70	27025

Bond Wires

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Gold	7440-57-5	3.10 E-04	99.99	1000000	1.23	12261

Chip

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Other inorganic materials	Doped Silicon	7440-21-3	1.00 E-03	100	1000000	3.96	39552

Die Attach

Description	Substance	CAS#	Weight (g)	Homogeneous Material Level		Component Level	
				Percentage (%)	PPM	Percentage (%)	PPM
Precious metals	Silver	7440-22-4	4.19 E-04	80.50	805000	1.66	16556
Other organic materials	Carbocyclic Acrylates	Proprietary	5.20 E-05	10.00	100000	0.21	2057
Other organic materials	Bismaleimide resin	Proprietary	1.56 E-05	3.00	30000	0.06	617
Other organic materials	2-preponoic acid, 2-methyl	68586-19-6	1.56 E-05	3.0	30000	0.06	617
Others	Additive	Proprietary	1.56 E-05	3.0	30000	0.06	617
Other organic materials	Dicumyl peroxide	80-43-3	2.60 E-06	0.5	5000	0.010	103
Subtotal			5.20 E-04	100.00	1000000	2.06	20567

	Weight (g)	Percentage (%)	PPM
Package Totals	**2.53 E-02**	**100**	**1000000**

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