

4 Leads - DMPS
Package Material Declaration



Date	09-Apr-19	Product name	Integrated Circuit
Package Code	VS	RoHS Compliant	Y
Package Name	Dual Mold package with straight leads	Halogen Free	Y
Product Total Mass (g)	0.2457	Plating	Pure Matte Sn

Product Number	MLX90373
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Material Declaration

Part Name	Material Name	Component Weight (g)	Material Component (Element)	CAS #	Element ratio (%)	Material Weight (g)	Ratio total Wt (ppm)		
Leadframe	Copper Alloy K75 (C18070)	0.11096	Copper (Cu)	7440-50-8	99.75	0.11069	450556		
			Chromium (Cr)	7440-47-3	0.20	0.00022	903		
			Silicon (Si)	7440-21-3	0.03	0.00003	136		
			Titanium (Ti)	7440-32-6	0.02	0.00002	90		
Frame plating	Silver	0.00120	Silver (Ag)	7440-22-4	100	0.00120	4885		
Die	Silicon IC	0.00351	Silicon (Si)	7440-21-3	99.99	0.00351	14286		
			Misc.	-	0.01	0.0000004	1		
IMC	S-FeNi-8	0.000006	Iron (Fe)	7439-89-6	19.75	0.0000012	5		
			Nickel (Ni) (0.0 ~ 80%)	7440-02-0	40	0.0000024	10		
			Molybdenum (Mo) (0.0 ~ 80%)	7439-98-7	40	0.0000024	10		
			others (max. 0.5%)	-	0.25	0.00000002	0.1		
Die attach materials	Silver / Epoxy Adhesive CRM1076WB	0.00095	Silver (Ag)	7440-22-4	80	0.00076	3081		
			Epoxy Resin A	9003-36-5	15	0.00014	578		
			Misc.	-	5	0.00005	193		
Capacitor (2x)	Ceramic element (ZB)	Ceramics	0.00872	Barium oxide, obtained by calcining witherite	1304-28-5	60	0.00523	21292	
				Titanium dioxide	13463-67-7	30	0.00262	10646	
				Misc.	-	10	0.00087	3549	
	Inner electrode	Nickel/Other Nickel alloy	0.00137	Nickel (Ni)	7440-02-0	100	0.00137	5585	
				Outer electrode (ZF)	Silver/Silver alloy	0.00126	Silver (Ag)	7440-22-4	70
	Outer electrode (ZG)	Glass	0.00014	Palladium (Pd)			7440-05-3	30	0.00038
				Glass w/o declarable substances	7631-86-9	99	0.00014	564	
				Misc.	-	1	0.00000	6	
	Outer electrode (ZG)	Copper	0.00100	Copper (Cu)	7440-50-8	100	0.00100	4054	
				Glass	0.00011	Glass w/o declarable substances	7631-86-9	99	0.00011
Misc.						-	1	0.000001	4
Capacitor attach materials	Silver / Epoxy Adhesive 84-1LMI	0.00031	Silver (Ag)	7440-22-4	80	0.00025	1006		
			Epoxy Resin	Trade Secret	15	0.00005	189		
			Misc.	-	5	0.00002	63		
Wire	Pd doped Gold	0.00028	Gold (Au)	7440-57-5	99	0.00028	1144		
			Palladium (Pd)	7440-05-3	1	0.000003	12		
Lead Finish	Tin	0.01266	Tin (Sn)	7440-31-5	99.99	0.01266	51528		
			Misc.	-	0.01	0.000001	5		
Encapsulation	G600	0.10319	Silica Fused	60676-86-0	87.7	0.09049	368366		
			Phenol Resin	Trade Secret	5	0.00516	21001		
			Epoxy Resin	Trade Secret	5	0.00516	21001		
			Epoxy, Cresol Novolac	29690-82-2	2	0.00206	8401		
			Carbon Black	1333-86-4	0.3	0.00031	1260		

Total package weight (g) 0.2457

Comments

- Composition derived from MSDS and material CoC from vendors
- Component weight based on assembly of generic parts
- Reliability qualification reports are available upon request through the appropriate sales or marketing contact
- Third party testing for RoHS substances are available upon request to environment@melexis.com

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