

**4 Leads - DMPS**  
**Package Material Declaration**



Date	9-Feb-21	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)	0.25827	Plating	Pure Matte Sn

<b>Product Number</b>	MLX90371
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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	428575	
			Chromium (Cr)	7440-47-3	0.20	0.00022	859	
			Silicon (Si)	7440-21-3	0.03	0.00003	129	
			Titanium (Ti)	7440-32-6	0.02	0.00002	86	
Frame plating	Silver	0.00120	Silver (Ag)	7440-22-4	100	0.00120	4646	
Die	Silicon	0.00351	Silicon (Si)	7440-21-3	99.99	0.00351	13589	
			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	9	
			Molybdenum (Mo) (0.0 ~ 80%)	7439-98-7	40	0.0000024	9	
			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	2931	
			Epoxy Resin A	9003-36-5	15	0.00014	550	
			Misc.	-	5	0.00005	183	
Multilayer Ceramic Capacitor (4x)	Ceramic element (ZB)	Ceramics	0.01744	Barium oxide, obtained by calcining witherite	1304-28-5	60	0.01046	40507
				Titanium dioxide	13463-67-7	30	0.00523	20254
				Misc.	-	10	0.00174	6751
	Inner electrode	Nickel/Other Nickel alloy	0.002744	Nickel (Ni)	7440-02-0	100	0.00274	10625
				Silver (Ag)	7440-22-4	70	0.00177	6852
	Outer electrode (ZF)	Silver/Silver alloy	0.002528	Palladium (Pd)	7440-05-3	30	0.00076	2937
				Glass w/o declarable substances	7631-86-9	99	0.00028	1073
				Misc.	-	1	0.00000	11
	Outer electrode (ZG)	Copper	0.001992	Copper (Cu)	7440-50-8	100	0.00199	7713
				Glass w/o declarable substances	7631-86-9	99	0.00022	843
Misc.				-	1	0.000002	9	
Capacitor attach materials	Silver / Epoxy Adhesive 84-1LMI	0.00031	Silver (Ag)	7440-22-4	80	0.00025	957	
			Epoxy Resin	Trade Secret	15	0.00005	179	
			Misc.	-	5	0.00002	60	
Wire	Pd doped Gold	0.00028	Gold (Au)	7440-57-5	99	0.00028	1089	
			Palladium (Pd)	7440-05-3	1	0.000003	11	
Lead Finish	Tin	0.01266	Tin (Sn)	7440-31-5	99.99	0.01266	49014	
			Misc.	-	0.01	0.000001	5	
Encapsulation	Silica EP G600	0.10319	Silica fused	60676-86-0	86.5	0.08926	345600	
			Epoxy Resin	-	7	0.00722	27968	
			Phenol Resin	-	6	0.00619	23972	
			Carbon Black	1333-86-4	0.5	0.00052	1998	

**Total package weight (g)** 0.25827

**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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