## 4 Leads - DMPS
## Package Material Declaration

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|---|---|---|---|
| Date | 11-Jul-17 | 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 |

**Product Number** MLX90374

### Material Declaration

| Part Name | | Material Name | Component Weight (g) | Material Component (Element) | CAS # | Element ratio (%) | Material Weight (g) | Ratio total Wt (ppm) |
|---|---|---|---|---|---|---|---|---|
| Leadframe | | 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 | | Ag plating | 0.00120 | Silver (Ag) | 7440-22-4 | 100 | 0.00120 | 4646 |
| Die | | Silicon IC | 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 |
| 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 |
| | Outer electrode (ZF) | Silver/Silver alloy | 0.002528 | Silver (Ag) | 7440-22-4 | 70 | 0.00177 | 6852 |
| | | | | Palladium (Pd) | 7440-05-3 | 30 | 0.00076 | 2937 |
| | | Glass | 0.00028 | 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 | 0.000220 | 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 | | G600 | 0.10319 | Silica Fused | 60676-86-0 | 87.7 | 0.09049 | 350395 |
| | | | | Phenol Resin | Trade Secret | 5 | 0.00516 | 19977 |
| | | | | Epoxy Resin | Trade Secret | 5 | 0.00516 | 19977 |
| | | | | Epoxy, Cresol Novolac | 29690-82-2 | 2 | 0.00206 | 7991 |
| | | | | Carbon Black | 1333-86-4 | 0.3 | 0.00031 | 1199 |

**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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