



Materials Declaration Form

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|---------------------|---|---------------------|------------|
| IPC | 1752 | Version | 2 |
| Form Type * | Distribute | | |
| Sectionals * | Material Info Manufacturing Info | Sectionals * | A-D |

* : Required Field

| Supplier Information | | | |
|------------------------------------|--|-------------------------------|--|
| Company Name * | STMicroelectronics | Response Date * | 2020-06-09 |
| Contact Name * | Refer to Supplier comment section | Contact Title | Refer to Supplier comment section |
| Contact Phone * | Refer to Supplier comment section | Contact Email * | Refer to Supplier comment section |
| Authorized Representative * | Antonella Lanzafame | Representative Title | AMS Material Declaration Champion |
| Representative Phone * | Refer to Supplier Comment section | Representative Email * | Refer to Supplier Comment section |
| Supplier Comment | Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html | | |

Uncertainty Statement

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Legal Statement

| | | | |
|------------------------------|-------------|----------------------------|-----------------|
| Supplier Acceptance * | true | Legal Declaration * | Standard |
|------------------------------|-------------|----------------------------|-----------------|

Legal Statement

Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

| Product | | | | |
|-----------------|---------------|-----------|------------------|------------|
| Mfr Item Number | Mfr Item Name | Version | Mfr Site | Date |
| LIS3MDLTR | 21UA*MT761A3 | B | MA1A | 2020-06-09 |
| Amount | UoM | Unit type | ST ECOPACK Grade | |
| 8.0 | mg | Each | ECOPACK® 2 | |

| Manufacturing information | | | | |
|---------------------------|----------------------------------|----------------------|---------|--|
| J-STD-020 MSL Rating | Classification Temp | Nbr of Reflow Cycles | | |
| 3 | 260 | 3 | | |
| bulk Solder Termination | Terminal Plating | Terminal Base Alloy | Comment | |
| NAC | Nickel/Palladium/Gold (Ni/Pd/Au) | Copper Alloy | 0 | |



| Package Designator | Size | Nbr of instances | Shape | |
|--------------------|-----------------------------|------------------|-------|--|
| LGA | 212 | 12 | Flat | |
| Comment | VFLGA 2X2X1 12LD PITCH 0.5M | | | |

| QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Directive 2015/863-March 2015 | |
|--|---|
| Query | Response |
| 1 - Product(s) meets EU RoHS requirement without any exemptions | false |
| 2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply) | true |
| 3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s) | true |
| 4 - Product(s) does not meet EU RoHS requirements and is not under exemptions | false |
| Exemption Id. | Description |
| 7c-I | 7c-I-Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound |

| QueryList : ELV directive : 2000/53/EC amended 2020/363_ March 2020 | |
|--|---|
| Query | Response |
| 1 - Product(s) meets EU ELV requirement without any exemptions | false |
| 2 - Product(s) meets EU ELV requirements by application of the selected exemption(s) | true |
| Exemption Id. | Description |
| 10a | Electrical and electronic components which contain lead in a glass or ceramic, in a glass or ceramic matrix compound, in a glass-ceramic material, or in a glass-ceramic matrix compound. This exemption does not cover the use of lead in: — glass in bulbs and glaze of spark plugs, — dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d) |

| QueryList : California Prop65 list, dated 3rd January 2020 | | | |
|--|------------------------|-------------|----------------|
| Query | | | Response |
| 1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen | | | false |
| 2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen | | | false |
| Substance | amount in product (mg) | Application | ppm in product |
| Nickel | 0.074 | alloy | 9250 |
| Lead-Borate Glass | 0.031 | passivation | 3875 |

| QueryList : REACH-16th January 2020 | | | | |
|--|-------------------------|-------------------------------------|------------------------------------|-----------------------------|
| Query | | | | Response |
| 1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH | | | | true |
| CategoryLevel_Name | CategoryLevel_Threshold | amount in product (mg) | Application | ppm in product |
| | | | | |
| 2 - Product(s) does not contain REACH Substances Of Very High Concern in any Homogeneous Material above the limits per the definition within REACH | | | | true |
| CategoryLevel_Name | CategoryLevel_Threshold | Amount in Homogeneous Material (mg) | Application - Homogeneous Material | ppm in Homogeneous Material |

| QueryList : Korea Chemical Control Act_ 27 Dec 2017 update | | | | |
|--|-------------------------------|----------------------------------|---------------------|----------|
| Query | | | | Response |
| The Product does contain at least one of the substances listed in Chemical Control Act | | | | false |
| Substance present in device Homogeneous Material | | | | |
| Substance | Homogeneous Material impacted | Concentration in the material(%) | Application Purpose | |

| Material Composition Declaration | | | | | | Mfr Item Name | 21UA*MT761A3 | | 8.0000 | | 5000004.0 | 1000000.0 | | | | |
|----------------------------------|---------------------------------|---------------------------------------|------------|-----------------------|-------------------------------|------------------------------|--------------|---------------------------|----------|----------------------|---|--------------------------------|-------|----|--------|-------|
| Homogeneous Material | Material Group | Mass | UoM | Level | Substance Category | Substance | CAS | Exempt | Mass | UoM | Concentration in homogeneous material (ppm) | Concentration in product (ppm) | | | | |
| Dies | M-011 Other inorganic materials | 0.732 | mg | supplier | die | Silicon(Si) | 7440-21-3 | | 0.621 | mg | 848361 | 77625 | | | | |
| | | | | supplier | metallisation | Aluminium(Al) | 7429-90-5 | | 0.006 | mg | 8197 | 750 | | | | |
| | | | | supplier | metallisation | Copper(Cu) | 7440-50-8 | | 0.018 | mg | 24590 | 2250 | | | | |
| | | | | supplier | metallisation | Tantalum(Ta) | 7440-25-7 | | 0.004 | mg | 5464 | 500 | | | | |
| | | | | supplier | metallisation | Titanium(Ti) | 7440-32-6 | | 0.002 | mg | 2732 | 250 | | | | |
| | | | | supplier | Passivation | Silicon Nitride (SiN) | 12033-89-5 | | 0.006 | mg | 8197 | 750 | | | | |
| | | | | supplier | passivation | Silicon Oxide | 7631-86-9 | | 0.044 | mg | 60109 | 5500 | | | | |
| | | | | JIG-R & California 65 | glass | Lead-Borate Glass | 65997-18-4 | 7c-I-Electrical and elect | 0.031 | mg | 42350 | 3875 | | | | |
| | | | | Substrate | M-015 Other organic materials | 1.878 | mg | supplier | laminate | Fiber glass | 65997-17-3 | | 0.333 | mg | 177316 | 41625 |
| | | | | | | | | supplier | laminate | Bismaleimide polymer | 105391-33-1 | | 0.112 | mg | 59638 | 14000 |
| supplier | laminate | Triazine (T) | 25722-66-1 | | | | | | 0.112 | mg | 59638 | 14000 | | | | |
| supplier | laminate | Thermosetting resin | 54208-63-8 | | | | | | 0.187 | mg | 99574 | 23375 | | | | |
| supplier | laminate | Aluminium hydroxide | 21645-51-2 | | | | | | 0.008 | mg | 4260 | 1000 | | | | |
| supplier | laminate | Calcium sulfate | 7778-18-9 | | | | | | 0.004 | mg | 2130 | 500 | | | | |
| supplier | laminate | Zinc hydroxide | 20427-58-1 | | | | | | 0.002 | mg | 1065 | 250 | | | | |
| supplier | laminate | Barium sulfate | 7727-43-7 | | | | | | 0.109 | mg | 58040 | 13625 | | | | |
| supplier | laminate | Bisphenol F type epoxy resin | 9003-36-5 | | | | | | 0.105 | mg | 55911 | 13125 | | | | |
| supplier | laminate | polymerized Biphenyl resin | 85954-11-6 | | | | | | 0.043 | mg | 22897 | 5375 | | | | |
| supplier | laminate | Talc containing no asbestiform fibers | 14807-96-6 | | | | | | 0.026 | mg | 13845 | 3250 | | | | |
| supplier | laminate | Methoxymethylethoxy propanol | 34590-94-8 | | | | | | 0.026 | mg | 13845 | 3250 | | | | |
| supplier | laminate | Amorphous silica | 7631-86-9 | | | | | | 0.020 | mg | 10650 | 2500 | | | | |
| supplier | metallisation | Copper(Cu) | 7440-50-8 | | | | | | 0.713 | mg | 379659 | 89125 | | | | |
| supplier | metallisation | Nickel(Ni) | 7440-02-0 | | | | | | 0.074 | mg | 39404 | 9250 | | | | |
| supplier | metallisation | Gold(Au) | 7440-57-5 | | | | | | 0.004 | mg | 2130 | 500 | | | | |
| Die attach | M-015 Other organic materials | 0.081 | mg | | | | | supplier | tape | Epoxy resin | 25068-38-6 | | 0.051 | mg | 629630 | 6375 |
| | | | | | | | | supplier | tape | Polypropylene | 9003-07-0 | | 0.002 | mg | 24691 | 250 |
| | | | | | | | | supplier | tape | epoxy resin | 29690-82-2 | | 0.008 | mg | 98765 | 1000 |
| | | | | | | | | supplier | tape | Propenoate polymer | 538311-13-6 | | 0.016 | mg | 197531 | 2000 |
| | | | | supplier | tape | Bisphenol A diglycidyl ether | 1675-54-3 | | 0.004 | mg | 49383 | 500 | | | | |
| Bonding wire | M-004 Copper and its alloys | 0.125 | mg | supplier | wire | Copper(Cu) | 7440-50-8 | | 0.121 | mg | 968000 | 15125 | | | | |
| | | | | supplier | wire | Palladium(Pd) | 7440-05-3 | | 0.004 | mg | 32000 | 500 | | | | |
| Encapsulation | M-015 Other organic materials | 5.184 | mg | supplier | mold compound | Silica vitreous | 60676-86-0 | | 4.487 | mg | 865548 | 560875 | | | | |
| | | | | supplier | mold compound | Biphenyl epoxy resin | 85954-11-6 | | 0.207 | mg | 39931 | 25875 | | | | |
| | | | | supplier | mold compound | Phenol resin | 26834-02-6 | | 0.207 | mg | 39931 | 25875 | | | | |
| | | | | supplier | mold compound | Epoxyde bisphenol A resin | 25068-38-6 | | 0.156 | mg | 30093 | 19500 | | | | |
| | | | | supplier | mold compound | Aluminium hydroxide | 21645-51-2 | | 0.104 | mg | 20062 | 13000 | | | | |
| supplier | mold compound | Carbon black | 1333-86-4 | | 0.023 | mg | 4437 | 2875 | | | | | | | | |
| | | | | | | | | | mg | | | | | | | |