| ASSOCIATION CONNECT | © Copyright 2005. II | Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions. | | | | This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with low level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility. | | | | | | | | | | |
|---|---------------------------------|---|---------------------------------------|-----------|--------------|---|---------------------|-------------------------------|----------------------------|----------------------------|---------------------------------|---------------------------------|-------------------------------|-----|-----------|--|
| 752-21.1 | | IPC Web Site for Information on IPC-1752 Standard Form Typ http://www.ipc.org/IPC-175x Distribute | | | | Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Mater | | | | | | ls and Mfg | Informati | on | | |
| upplier Infor | mation | | | | | | | | | | | | | | | |
| Company name* | | | Company unique ID | | | τ | Unique ID Authority | | | | | Response Date* | | | | |
| nsemi | | | | | | | | | | | | | 2023-06-08 | | | |
| Contact Name | | Title - Contact | | | I | Phone - Contact* | | | | | Email - Contact* | | | | | |
| Product-Env-Stev | wards | Product Enviro Compliance | | | | NA | | | | | Product-Env-Stewards@onsemi.com | | | | | |
| uthorized Repre | sentative* | Title - Representative | | | I | Phone - Representative* | | | | | Email - Representative* | | | | | |
| Product-Env-Stewards | | | Product Enviro Compliance | | | | NA | | | | | Product-Env-Stewards@onsemi.com | | | | |
| Reques | ster Item Number | | | | | | Effective Dat | e Version | Version Manufacturing Site | | g Site | We | ight* | UOM | Unit Type | |
| | | | | | | | 2023-06-08 | | F | PH4 | | 73.596 m | | mg | Each | |
| Ianufacturing | g Proccess Informat | tion | | | | | | | | | | | | | | |
| Termina | l Plating / Grid Array Material | | Terminal Base Alloy | | J-STD-020 MS | D-020 MSL Rating | | Peak Process Body Temperature | | re Max Time at Peak Temper | | Гетрегаtur | ature Number of Reflow Cycles | | eles | |
| Precious metal (e.g. Ag,Au, NiPdAu) (no Sn) | | 'dAu) (no | CU Alloy 1 | | 1 | | 260 | | C 3 | | | seconds | 3 | | | |
| Comments | | | · · · · · · · · · · · · · · · · · · · | | | | <u> </u> | | | | | | | | | |
| vel 1 - maximum | ı time at peak temperatu | re during so | oldering is 10-3 | 0 seconds | | · | | | | | | | | | | |
| or more informa | tion regarding material | composition | please refer to | page 3 | | | | | | | | | | | | |

| RoHS Material Composition Declaration | | | Declaration Type * | Detail | ed | | | | | | |
|---|---|---|---|---|---|--|--|--|--|--|--|
| Directive 2015/863/EU amending RoHS Directive 2011/65/EU RoHS Definition: Quantity limit of 0.01% by mass (100 PPM) in homogeneous material for Cadmium and quantity limit of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr6+), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE), and Bis(2-ethylhexyl) phthalate (DEHP), Benzyl-butyl phthalate (BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP). | | | | | | | | | | | |
| cadmium, hexavalentchromium, polybromin contains a RoHS restricted substance inexce encompass all such components. Supplier cet as of the date that Supplier completes this Company acknowledges that Supplier may hindependently verified information provided certification in this paragraph. If the Compan | nated biphenyls and/or polybrominated diphess of an applicable quantity limit, please indriffes that it gathered the information it provom. Supplier acknowledges that Company wave relied on informationprovided by others of the supplier agrees that, at a minimusy and the Supplier enter into a written agree yesource of the Supplier's liability and the C | enyl ethers (each a "RoHS restricted substan licate below which, if any, RoHS exemption vides in this form using appropriate methods vill rely on this certification in determining the s in completing this form, and that Supplier um, itssuppliers have provided certifications ement with respect to the identified part, the tompany's remedies for issues that arise rega | s of the European Union member states) of the ce") in excess of the applicable quantity limit is you believe may apply. If the part is an assemb to ensure its accuracy and that such informatio e compliance of its products with European Ur may not have independently verified such infor regarding their contributions to the part, and the erms and conditions of that agreement, including information the Supplier provides in this | dentified above. If a ally with lower level in is true and correct tion member state la mation. However, in ose certifications are ag any warranty righ | homogeneous material within the part components, the declaration shall to the best of its knowledge and belief, was that implement the RoHS Directive. In situations where Supplier has not the at least as comprehensive as the lats and/or remedies provided as part of | | | | | | |
| RoHS Declaration * 1 - Item | (s) does not contain RoHS restricted substar | nces per the definition above | Supplier A | cceptance * | Accepted | | | | | | |
| Exemption: If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration above and choose all applicable exemptions. | | | | | | | | | | | |
| Exemption List Version | EL-2011/534/EU | | | | | | | | | | |
| Declaration Signature | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | e "Accepted" on the Supplier Acceptance | drop-down. This will display the signature a | rea. Digitally sign t | the declaration (if required by the | | | | | | |

Homogeneous Material Composition Declaration for Electronic Products

SubItem Instructions: The presence of any JIG Level A or B substances must be declared. [1] indicate the subpart in which the substance is located, [2] provide a description of the homogeneous material [3], enter the weight of the homogeneous material.

Substance Instructions: [A] select the Level (JIG A, JIG B, Requester or Supplier) [B] select the substance category (JIG or Requester) or enter a value (Supplier). [C] select the substance (JIG) or enter the substance and CAS (Other). [D] select a RoHS exemption, if applicable [E] enter the weight of the substance or the PPM concentration [F] Optionally enter the positive (+) and negative (-) tolerance in percent (Note: percent tolerance values are expected to cover a 3 sigma range of distribution unless otherwise noted).

| Homogeneous Material | Weight | Unit of Measure | Level | Substance | CAS | Exempt | Weight | Unit of Measure |
|----------------------|--------|-----------------|----------|--|------------------|--------|---------|-----------------|
| Die | 1.25 | mg | Supplier | Silicon (Si) | 7440-21-3 | | 1.25 | mg |
| Die Attach | 0.136 | mg | Supplier | Ethylene glycol dicyclopentenyl ether methacrylate | 68586-19-6 | | 0.0048 | mg |
| | | | Supplier | Bis(a,a-dimethylbenzyl) Peroxide | 80-43-3 | | 0.0009 | mg |
| | | | Supplier | Silver (Ag) | 7440-22-4 | | 0.1304 | mg |
| Lead Frame | 30.624 | mg | Supplier | Magnesium (Mg) | 7439-95-4 | | 0.0459 | mg |
| | | | Supplier | Silicon (Si) | 7440-21-3 | | 0.1991 | mg |
| | | | В | Nickel (Ni) | 7440-02-0 | | 0.9187 | mg |
| | | | Supplier | Copper (Cu) | 7440-50-8 | | 29.4603 | mg |
| Mold Compound-Black | 40.867 | mg | | Epoxy resin | proprietary data | | 3.8824 | mg |
| | | | Supplier | Phenol Resin | Proprietary Data | | 2.0433 | mg |
| | | | Supplier | Carbon Black (C) | 1333-86-4 | | 0.2043 | mg |
| | | | Supplier | Fused Silica (SiO2) | 60676-86-0 | | 34.7369 | mg |
| Plating | 0.223 | mg | Supplier | Palladium (Pd) | 7440-05-3 | | 0.006 | mg |
| | | | В | Nickel (Ni) | 7440-02-0 | | 0.213 | mg |
| | | | Supplier | Gold (Au) | 7440-57-5 | | 0.004 | mg |
| Wire Bond - Au | 0.496 | mg | Supplier | Gold (Au) | 7440-57-5 | | 0.496 | mg |