Material Declaration Table

Package Type: **LQFP 80**
Package Code: **LQH080**
Dimension: **12 x 12 x 1.7 mm**
IC Weight (mg): **470.0000**
Assembly Location: **J-devices/Usuki**
Product is RoHS Compliant

部位名 Part Name	部位重量(mg) Part Weight	CAS No.	含有物質名 Contained material Name	使用目的 Purpose of use	含有量(mg) Contained material Weight	製品重量に対する含有率 Weight percent and ppm values per IC weight		部位重量に対する含有率 Weight percent and ppm values per part weight	
						ｗｔ％	ｐｐｍ	ｗｔ％	ｐｐｍ
チップ:Chip	10.4010	7440-21-3	シリコン Silicon(Si)	チップ材料 Chip Material	10.4010	2.2100%	22100	100.0000%	1000000
リードフレーム Lead frame	100.7000	7440-50-8	銅 Copper (Cu)	リードフレーム材料 Lead frame material	99.8600	21.2500%	212500	99.1658%	991658
		7440-22-4	銀 Silver (Ag)	Agﾒｯｷ Ag Plating	0.8400	0.1800%	1800	0.8342%	8342
ダイ付け剤 Die attach	1.6740	7440-22-4	銀 Silver (Ag)	ダイ付け剤 Die attach	1.1720	0.2500%	2500	70.0000%	700000
		Trade Secret	エポキシ樹脂 Epoxy Resin (EP)	ダイ付け剤 Die attach	0.2680	0.0600%	600	16.0000%	160000
		Trade Secret	フェーノール樹脂 Phenolic Resin	ダイ付け剤 Die attach	0.2340	0.0500%	500	14.0000%	140000
ボンディングワイヤー Bonding Wire	1.4100	7440-57-5	金 Gold (Au)	ワイヤー材料 Wire material	1.4100	0.3000%	3000	100.0000%	1000000
封止樹脂 Encapsulation resin	349.8950	Trade Secret	有機リン化合物 Organic phosphorus compounds (P)	硬化促進剤 Hardening accelerator	13.9960	2.9800%	29800	4.0000%	40000
		60676-86-0	シリカ Silica (SiO2)	添加剤 Additive	317.7040	67.6000%	676000	90.8000%	908000
		1333-86-4	カーボンブラック Carbon black (C)	着色顔料 Coloring pigment	0.7000	0.1500%	1500	0.2000%	2000
		Trade Secret	エポキシ樹脂 Epoxy Resin (EP)	樹脂材料 Resin Material	17.4950	3.7200%	37200	5.0000%	50000
リードフレーム 半田メッキ Solder plating of Lead frame	5.9200	7440-31-5	錫 Tin (Sn)	半田メッキ Solder plating	5.9200	1.2600%	12600	100.0000%	1000000
合　計 Total	470.0000				470.0000	100.0100%	1000100		

Disclaimer

In general, four decimal values are shown. However, some varience remains from package to package. The mass values presented are thought to be accurate to within 20 percent. The report does not include materials not intentionally added to our products (impurities), or material concentrations less than 1 ppm.

注）ヒ素はチップ中にイオン化し打ち込み、素子材料として含有していますが、微量のため表からは除外しています。チップ全面に打ち込む（現実には有り得ませんが、理論上の最大値）と仮定して、チップ重量に対し１１ｐｐｍの含有となります。

Note) This product contains Arsenic(As) as a device material through ion implantation, however, it is not listed in the table due to the minuscule quantities.Given that Arsenic is implanted into entire surface of the chip (That situation is improbable in reality and the theoretical maximum value is calculated) , it would be 11ppm per a chip weight.

Document History Page

Document Title: Material Declaration Datasheet (MDDS) - LQFP 80 (LQH080) (E2) - J-devices/Usuki - Au Wire
Document Number: 002-13704

Rev.	ECN No.	Orig. of Change	Description of Change
**	5307511	AAC	Initial Release.
*A	5348784	AAC	Updated Specs Title. Updated Package Type. Added Package Code. Added Package Dimension. Added (mg) on IC Weight. Added Assembly Location. Updated Document Title on Document History Page. Added Assembly Location on Document Title on History Page.