



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D
<i>* : Required Field</i>			

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2017-02-27
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 *	Rossana Bonaccorso	Representative Title	ADG MD 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
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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
L9788	99OS*UR66BC1	A	MU1A	2017-02-27
Amount		UoM	Unit type	ST ECOPACK Grade
650.00		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		



Package Designator	Size	Nbr of instances	Shape	
QFP	14x14x1.4	100	flat	
Comment	Package: LQFP-EP 100 14x14x1.4 ExpadDown			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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)	false
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-12th January 2017				
Query				Response
The product 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

Material Composition Declaration						Mfr Item Name	990S*UR66BC1					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	34.397	mg	supplier	die	Silicon (Si)	7440-21-3		30.590	mg	889322	47062
				supplier	metallization	Copper (Cu)	7440-50-8		2.083	mg	60558	3205
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.748	mg	21746	1151
				supplier	metallization	Cobalt (Co)	7440-48-4		0.003	mg	87	5
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	59	3
				supplier	metallization	Tungsten (W)	7440-33-7		0.097	mg	2820	149
				supplier	metallization	Platinum (Pt)	7440-06-4		0.130	mg	3779	200
				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.059	mg	1715	91
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.333	mg	9681	512
				supplier	polymer die coating	Polyimide AH 1200	Proprietary		0.352	mg	10233	542
Leadframe	Copper & its alloys	219.488	mg	supplier	alloy	Copper (Cu)	7440-50-8		210.540	mg	959232	323908
				supplier	alloy	Nickel (Ni)	7440-02-0		6.566	mg	29915	10102
				supplier	alloy	Magnesium (Mg)	7439-95-4		0.328	mg	1494	505
				supplier	alloy	Silicon (Si)	7440-21-3		1.423	mg	6483	2189
				supplier	metallization	Nickel (Ni)	7440-02-0		0.587	mg	2674	903
				supplier	metallization	Palladium (Pd)	7440-05-3		0.024	mg	109	37
				supplier	metallization	Gold (Au)	7440-57-5		0.020	mg	93	31
Die attach	Other Organic Materials	6.290	mg	supplier	glue or tape	Bismaleimide resin	35325-39-4		0.189	mg	30047	291
				supplier	glue or tape	Isobornyl Methacrylate	7534-94-3		0.472	mg	75040	724
				supplier	glue or tape	Silver (Ag)	7440-22-4		5.629	mg	894913	8660
Bonding wire	Other inorganic materials	4.738	mg	supplier	wire	Copper (Cu)	7440-50-8		4.738	mg	1000000	7289
Encapsulation	Other Organic Materials	385.087	mg	supplier	mold compound	Epoxy Resin	25068-38-6		28.177	mg	73170	43349
				supplier	mold compound	Phenol Resin	2969082-2		28.177	mg	73170	43349
				supplier	mold compound	Silica, vitreous	60676-86-0		324.601	mg	842929	499386
				supplier	mold compound	Quartz	14808-60-7		1.127	mg	2927	1734
				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		1.878	mg	4877	2889
				supplier	mold compound	Carbon black	1333-86-4		1.127	mg	2927	1734