



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 *	2017-05-04
Contact Name *	Refer to Supplier Comment section		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			
<p>While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.</p>			
Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard
Legal Statement	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
HSP051-4N10	802R*V4U6ETC	A	Z6HA	2017-05-04
Amount		UoM	Unit type	ST ECOPACK Grade
2.70		mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	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	
QFN	1.9x1x032	8	flat	
Comment	Package: DFN.19.10.032.040-8L-E			

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5 - Product(s) is obsolete, no information is available	false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

Query : California Prop65 list, dated 27th January 2017			
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			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.06	die backside metal-leadframe	22222

QueryList : REACH-12th January 2017				
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

Material Composition Declaration						Mfr Item Name	802R*V4U6ETC					
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	0.036	mg	supplier	die	Silicon (Si)	7440-21-3		0.025	mg	694444	9259
				supplier	metallization	Aluminium (Al)	7429-90-5		0.009	mg	250000	3333
				supplier	Passivation	Silicon Oxide	7631-86-9		0.001	mg	27778	370
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.001	mg	27778	370
				supplier	alloy	Manganese (Mn)	7439-96-5		0.002	mg	1310	741
Leadframe	Copper and its alloy	1.527	mg	supplier	alloy	Copper (Cu)	7440-50-8		1.455	mg	952849	538889
				supplier	alloy	Nickel (Ni)	7440-02-0		0.045	mg	29470	16667
				supplier	alloy	Silicium (Si)	7440-21-3		0.01	mg	6549	3704
				supplier	metallization	Palladium (Pd)	7440-05-3		0.001	mg	654	370
				supplier	metallization	Nickel (Ni)	7440-02-0		0.014	mg	9168	5185
Die attach	Other Organic Materials	0.009	mg	supplier	Epoxy	Silver (Ag)	7440-22-4		0.007	mg	777778	2593
				supplier	Epoxy	Butadiene,acrylonitrile,polymer,carboxy-termi	68610-41-3		0.001	mg	111111	370
				supplier	Epoxy	2-(2-ethoxyethoxy)ethyl acetate	112-15-2		0.001	mg	111111	370
Bonding wire	Other inorganic materials	0.030	mg	supplier	Bonding Wire	Gold (Au)	7440-57-5		0.030	mg	1000000	11111
Encapsulation	Other organic materials	1.098	mg	supplier	molding compound	Amorphous Silica	60676-86-0		0.966	mg	879781	357778
				supplier	molding compound	Epoxy Resin-1	25068-38-6		0.011	mg	10018	4074
				supplier	molding compound	Epoxy Resin-2	proprietary		0.055	mg	50093	20372
				supplier	molding compound	Phenol resin	29690-82-2		0.022	mg	20036	8148
				supplier	molding compound	Metal hydroxide	21645-51-2		0.011	mg	10018	4074
				supplier	molding compound	carbon black	1333-86-4		0.011	mg	10018	4074
				supplier	molding compound	Crystalline silica	14808-60-7		0.022	mg	20036	8148