



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 *	2016-08-18
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	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

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
STH410N4F7-2AG	R2(9*OD4KQ52	A	SHENZHEN B/E	2016-08-18
	Amount	UoM	Unit type	ST ECOPACK Grade
	1380.00	mg	Each	ECOPACK1

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-7.2-4.5	3	GULL WING	
Comment	H2PAK HC 2-3 Leads			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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)	false
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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-20th June 2016				
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	R2(9*OD4KQ52					
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	5.353	mg	supplier	die	Silicon (Si)	7440-21-3		4.757	mg	888661	3447
				supplier	metallization	Aluminium (Al)	7429-90-5		0.177	mg	33066	128
				supplier	metallization	Titanium (Ti)	7440-32-6		0.034	mg	6352	25
				supplier	Passivation	Silicon Oxide	7631-86-9		0.202	mg	37736	146
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.010	mg	1867	7
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.136	mg	25406	99
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.007	mg	1308	5
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.030	mg	5604	22
Leadframe	Copper & its alloys	850.601	mg	supplier	alloy	Copper (Cu)	7440-50-8		843.710	mg	991899	611384
				supplier	alloy	CopperPhosphorus (CuP)	12517-41-8		1.696	mg	1994	1229
				supplier	alloy	Cobalt (Co)	7440-48-4		2.374	mg	2791	1720
				supplier	metallization	Nickel (Ni)	7440-02-0		2.804	mg	3296	2032
				supplier	metallization	Phosphorus (P)	12185-10-3		0.017	mg	20	12
Die attach	Other Organic Materials	16.852	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	16.094	mg	955020	11662
				supplier	solder	Silver (Ag)	7440-22-4		0.421	mg	24982	305
				supplier	solder	Tin (Sn)	7440-31-5		0.337	mg	19998	244
	Other inorganic materials	0.154	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.153	mg	994798	111
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	5202	1
Bonding Ribbons	Other Nonferrous metals & alloys	9.295	mg	supplier	Ribbon	Aluminium (Al)	7429-90-5		9.295	mg	1000000	6736
Encapsulation	Other Organic Materials	494.011	mg	supplier	mold compound	Silica, vitreous	60676-86-0		398.173	mg	806000	288531
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		34.581	mg	70000	25059
				supplier	mold compound	Phenol resin	9003-35-4		19.760	mg	39999	14319
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		29.641	mg	60001	21479
				supplier	mold compound	Antimony Trioxide	1309-64-4		5.928	mg	12000	4296
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		3.458	mg	7000	2506
				supplier	mold compound	Carbon black	1333-86-4		2.470	mg	5000	1790
Connections coating	Solder	3.734	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		3.734	mg	1000000	2706