



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 *	2016-10-06
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


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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
STFH10N60M2	TS8U*MQ61B8F	A	Z8GA	2016-10-06
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2X9.2X4.5	3	Through-hole	
Comment	Package: TO-220FP WIDE CREEPPAGE			

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	TSU*MQ6188F					
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	4.640	mg	supplier	die	Silicon (Si)	7440-21-3		4.453	mg	959698	2344
				supplier	metallization	Aluminium (Al)	7429-90-5		0.090	mg	19397	47
				supplier	Passivation	Silicon Nitride	12033-89-5		0.021	mg	4526	11
				supplier	Passivation	Silicon Oxide	7631-86-9		0.032	mg	6897	17
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	430	1
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.031	mg	6681	16
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.011	mg	2371	6
Leadframe	Copper & its alloys	784.277	mg	supplier	alloy	Copper (Cu)	7440-50-8		779.439	mg	993831	410231
				supplier	alloy	Iron (Fe)	7439-89-6		0.784	mg	1000	413
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.235	mg	300	124
				supplier	metallization	Nickel (Ni)	7440-02-0		3.795	mg	4839	1997
				supplier	metallization	Phosphorus (P)	12185-10-3		0.024	mg	30	13
Soft solder	Solder	5.020	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	4.795	mg	955179	2524
				supplier	solder	Silver (Ag)	7440-22-4		0.125	mg	24901	63
				supplier	solder	Tin (Sn)	7440-31-5		0.100	mg	19920	53
Bonding wire	Other inorganic materials	1.048	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.048	mg	1000000	552
Encapsulation	Other inorganic materials	1098.844	mg	supplier	mold compound	Silica, vitreous	60676-86-0		82.414	mg	75000	43376
				supplier	mold compound	Quartz	14808-60-7		769.190	mg	699999	404837
				supplier	mold compound	Epoxy resin	25068-38-6		153.839	mg	140001	80968
				supplier	mold compound	phenol resin	29690-82-2		76.919	mg	70000	40484
				supplier	mold compound	carbon black	1333-86-4		5.494	mg	5000	2892
				supplier	mold compound	metal hydroxide	21465-51-2		10.988	mg	10000	5783
Connections coating	Solder	6.171	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.171	mg	1000000	3248