



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 *	2016-08-26
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	<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
STF13N60DM2	TSFP*FQ63B62	A	SHENZHEN B/E	2016-08-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	mg	Each	ECOPACK2

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

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-16.15-4.5	3	THROUGH HOLE	
Comment	TO 220 ISO FULL PACK IN LINE			

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	TSFP*FQ63B62					
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	5.691	mg	supplier	die	Silicon (Si)	7440-21-3		5.379	mg	945177	2831
				supplier	metallization	Aluminium (Al)	7429-90-5		0.150	mg	26357	79
				supplier	Passivation	Silicon Nitride	12033-89-5		0.036	mg	6326	19
				supplier	Passivation	Silicon Oxide	7631-86-9		0.053	mg	9313	28
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	702	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.051	mg	8962	27
Leadframe	Copper & its alloys	614.127	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.018	mg	3163	9
				supplier	alloy	Copper (Cu)	7440-50-8		604.469	mg	984274	318142
				supplier	alloy	Iron (Fe)	7439-89-6		0.605	mg	985	318
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.182	mg	296	96
				supplier	metallization	Nickel (Ni)	7440-02-0		8.816	mg	14355	4640
				supplier	metallization	Phosphorus (P)	12185-10-3		0.055	mg	90	29
Soft solder	Solder	7.042	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	6.725	mg	954984	3539
				supplier	solder	Silver (Ag)	7440-22-4		0.176	mg	24993	93
				supplier	solder	Tin (Sn)	7440-31-5		0.141	mg	20023	74
Bonding wires	Other inorganic materials	0.780	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.776	mg	994999	408
				supplier	wire	Magnesium (Mg)	7439-95-4		0.004	mg	5001	2
Encapsulation	Other Organic Materials	1265.715	mg	supplier	mold compound	Quartz	14808-60-7		886.000	mg	700000	466316
				supplier	mold compound	Silica, vitreous	60676-86-0		94.929	mg	75000	49963
				supplier	mold compound	Epoxy resin	25068-38-6		177.200	mg	140000	93263
				supplier	mold compound	phenol resin	29690-82-2		88.600	mg	70000	46632
					#N/A	mold compound	metal hydroxide	Proprietary		12.657	mg	10000
Connections coating	Solder	5.866	mg	supplier	mold compound	carbon black	1333-86-4		6.329	mg	5000	3331
				supplier	solder alloy	Tin (Sn)	7440-31-5		5.866	mg	1000000	3087