



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2016-05-02
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
STF34N65M5	TSFP*M5F6B52	A	SHENZHEN B/E	2016-05-02
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	10-9.05-4.4	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-17th December 2015				
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*MSF6852					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or Dies (choose)	Other inorganic materials	15.956	mg	supplier	die	Silicon (Si)	7440-21-3		14.815	mg	928491	7797
				supplier	metallization	Aluminium (Al)	7429-90-5		0.276	mg	17298	145
				supplier	metallization	Titanium (Ti)	7440-32-6		0.010	mg	627	5
				supplier	metallization	Nickel (Ni)	7440-02-0		0.606	mg	37979	319
				supplier	metallization	Silver (Ag)	7440-22-4		0.036	mg	2256	19
				supplier	Passivation	Silicon Nitride	12033-89-5		0.064	mg	4011	34
				supplier	Passivation	Silicon Oxide	7631-86-9		0.005	mg	313	3
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.007	mg	439	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.101	mg	6330	53
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.036	mg	2256	19
Leadframe	Copper & its alloys	1257.964	mg	supplier	alloy	Copper (Cu)	7440-50-8		1251.376	mg	994763	658619
				supplier	alloy	Iron (Fe)	7439-89-6		1.253	mg	996	659
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.376	mg	299	198
				supplier	metallization	Nickel (Ni)	7440-02-0		4.928	mg	3917	2594
				supplier	metallization	Phosphorus (P)	12185-10-3		0.031	mg	25	16
Soft solder	Solder	13.732	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	13.114	mg	954996	6902
				supplier	solder	Silver (Ag)	7440-22-4		0.343	mg	24978	181
				supplier	solder	Tin (Sn)	7440-31-5		0.275	mg	20026	145
Bonding wires	Other inorganic materials	1.410	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.409	mg	999291	742
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	709	1
Encapsulation	Other Organic Materials	604.576	mg	supplier	mold compound	Quartz	14808-60-7		423.203	mg	700000	222738
				supplier	mold compound	Silica, vitreous	60676-86-0		45.343	mg	75000	23865
				supplier	mold compound	Epoxy resin	25068-38-6		84.641	mg	140001	44548
				supplier	mold compound	phenol resin	29690-82-2		42.320	mg	69999	22274
					#N/A	mold compound	Proprietary	Proprietary	6.046	mg	10000	3182
				supplier	mold compound	carbon black	1333-86-4		3.023	mg	5000	1591
Connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348