



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 *	2017-04-26
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Patrick PERILLAT	Representative Title	Group 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
STV6110A/BMN	MNFR*6110B1C	A	9998	2017-04-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	59	mg	Each	ECOPACK® 2
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	5x5x1.0	32	flat	
Comment	Package: FR VFQFPN2 5x5x1.0 32 PITCH 0.5 7753797A			

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
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

ELV directive : 2000/53/EC amended 2016/774 _May 2016	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	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	TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen	FALSE

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	MnFR*6110B1C				6000000	1000000
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	7.441	mg	supplier	die	Silicon (Si)	7440-21-3		3.300	mg	443489	55932
				supplier	metallization	Aluminium (Al)	7429-90-5		0.012	mg	1613	203
				supplier	metallization	Copper (Cu)	7440-50-8		0.041	mg	5510	695
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.005	mg	672	85
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	806	102
				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	1478	186
				supplier	Passivation	Silicon Oxide	7631-86-9		0.066	mg	8870	1119
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		4.000	mg	537562	67797
Leadframe	Copper and its alloy	37.506	mg	supplier	alloy	Copper (Cu)	7440-50-8		35.770	mg	953715	606272
				supplier	alloy	Iron (Fe)	7439-89-6		0.881	mg	23490	14932
				supplier	alloy	Zinc (Zn)	7440-66-6		0.044	mg	1173	746
				supplier	alloy	Metallic Phosphorous (P)	7723-14-0		0.011	mg	293	186
				supplier	metallisation	Silver(Ag)	7440-22-4		0.800	mg	21330	13559
				supplier	glue	Silver(Ag)	7440-22-4		0.897	mg	850237	15203
DIE ATTACH	Other organic materials	1.055	mg	supplier	glue	Bisphenol F type epoxy resin	9003-36-5		0.063	mg	59716	1068
				supplier	glue	Epoxy resin	Proprietary		0.059	mg	55924	1000
				supplier	glue	P-Tertbutylphenyl glycidyl ether	3101-60-8		0.032	mg	30332	542
				supplier	glue	dicyandiamide	461-58-5		0.004	mg	3791	68
				supplier	wire	Copper (Cu)	7440-50-8		0.246	mg	976190	4169
Bonding wire	Copper & its alloys	0.252	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.005	mg	19841	85
				supplier	wire	Gold (Au)	7440-57-5		0.001	mg	3968	17
Encapsulation	Other inorganic materials	12.500	mg	supplier	molding compound	Epoxy Resin A	Proprietary		0.375	mg	30000	6356
				supplier	molding compound	Epoxy Resin B	85954-11-6		0.500	mg	40000	8475
				supplier	molding compound	Phenol Resin	Proprietary		0.687	mg	54960	11644
				supplier	molding compound	Silica Amorphous A	60676-86-0		9.375	mg	750000	158898
				supplier	molding compound	Silica Amorphous B	7631-86-9		1.125	mg	90000	19068
				supplier	molding compound	Aluminium and its compounds	21645-51-2		0.375	mg	30000	6356
				supplier	molding compound	Carbon Black	1333-86-4		0.063	mg	5040	1068
FINISHING (Sytron - S238)	Solder	0.246	mg	supplier	COATING	Tin (Sn)	7440-31-5		0.246	mg	1000000	4169