



## Materials Declaration Form


<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D

\*: Required Field

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-03-05
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	MDG MD CHAMPION	<b>Representative Title</b>	MDG MD CHAMPION
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

<b>Uncertainty Statement</b>	
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<b>Legal Statement</b>	
<b>Supplier Acceptance *</b>	true
	<b>Legal Declaration *</b>
	Standard
<b>Legal Statement</b>	<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
STM32L052K8T7	S45V*417XXXX	A	998Z	2018-03-05
Amount	UoM	Unit type	ST ECOPACK Grade	
183.56	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	
able; if coating is used or other bulk	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	7X7X1.4	32	L Bend	
Comment	Package : 5V LQFP 32 7x7x1.4 1 0060661			

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

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	S45V*417XXX				6000001.0	1000002.8
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	M-011 Other inorganic materials	6.674	mg	supplier	die	Silicon (Si)	7440-21-3		6.462	mg	968235	35203
				supplier	metallization	Aluminium (Al)	7429-90-5		0.019	mg	2847	104
				supplier	metallization	Copper (Cu)	7440-50-8		0.062	mg	9290	338
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.007	mg	1049	38
				supplier	metallization	Titanium (Ti)	7440-32-6		0.009	mg	1349	49
				supplier	Passivation	Silicon Nitride	12033-89-5		0.016	mg	2397	87
				supplier	Passivation	Silicon Oxide	7631-86-9		0.099	mg	14834	539
Die Attach Epoxy_ABLEBOND 3230_H	M-011 Other inorganic materials	0.908	mg	Supplier	Metals	Silver	7440-22-4		0.643	mg	707965	3502
				Supplier	Plastics/polymers	2,2'-(Methylenebis(phenyleneoxymethylene))	39817-09-9		0.044	mg	48673	241
				Supplier	Organic Compounds	Dihydro-3-(tetrapropenyl)furan-2,5-dione	26544-38-7		0.044	mg	48673	241
				Supplier	Organic Compounds	Epoxy resin Proprietary	Proprietary		0.044	mg	48673	241
				Supplier	Organic Compounds	Dodecylloxirane	3234-28-4		0.044	mg	48673	241
				Supplier	Organic Compounds	1,3-Isobenzofurandione, hexahydro-5-methyl	19438-60-9		0.044	mg	48673	241
				Supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8		0.044	mg	48673	241
EMC_G631SHQ_Sumitomo	M-011 Other inorganic materials	118.466	mg	Supplier	Organic Compounds	Epoxy Resin A	Proprietary		2.488	mg	21000	13553
				Supplier	Organic Compounds	Epoxy Resin B	Proprietary		2.488	mg	21000	13553
				Supplier	Organic Compounds	Phenol Resin	Proprietary		6.634	mg	56000	36140
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		92.457	mg	780450	503676
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		13.662	mg	115320	74424
				Supplier	Additives	Carbon Black	1333-86-4		0.738	mg	6230	4021
BondingWire_Ag_MKE	Bonding Wire	0.301	mg	Supplier	Metals	Silver	7440-22-4		0.289	mg	960000	1573
				Supplier	Metals	Others	Proprietary		0.012	mg	40000	66
Anode Ball_Tin_Asahi	Metals	1.209	mg	Supplier	Metals	Tin	7440-31-5		1.209	mg	1000000	6587
Leadframe_C9+Ag_HDS	Metals	56.007	mg	Supplier	Metals	Iron	7439-89-6		1.225	mg	21865	6671
				Supplier	Non-metals	Phosphorus	7723-14-0		0.041	mg	730	223
				Supplier	Metals	Zinc	7440-66-6		0.063	mg	1125	343
				Supplier	Metals	Copper	7440-50-8		51.148	mg	913235	278635
				Supplier	Metals	Silver	7440-22-4		3.528	mg	63000	19222
				JIG-R	Metals	Lead	7439-92-1		0.003	mg	45	14