




## 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
<i>* : Required Field</i>			

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2017-07-11
<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>		

Uncertainty Statement	
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Legal Statement	
<b>Supplier Acceptance *</b>	<div style="display: flex; justify-content: space-between;"> <span>true</span> <span><b>Legal Declaration *</b></span> <span>Standard</span> </div>
<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
STM32F334K8T6 STM32F334K8T6TR	Y15V*438XXXZ	A	9988	2017-07-11
	Amount	UoM	Unit type	ST ECOPACK Grade
	180.00	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	
NAC	Tin (Sn), matte	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 :						Mfr Item Name	Y15V*438XXXZ				6000001.0	999999.0
note : Substance present with less 0.001mg will not be declared in this document												
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	13.498	mg	supplier	die	Silicon (Si)	7440-21-3		12.941	mg	958735	71894
				supplier	metallization	Aluminium (Al)	7429-90-5		0.038	mg	2815	211
				supplier	metallization	Copper (Cu)	7440-50-8		0.189	mg	14002	1050
				supplier	metallization	Cobalt (Co)	7440-48-4		0.035	mg	2593	194
				supplier	metallization	Titanium (Ti)	7440-32-6		0.010	mg	741	56
				supplier	metallization	Tungsten (W)	7440-33-7		0.021	mg	1556	117
				supplier	Passivation	Silicon Nitride	12033-89-5		0.025	mg	1852	139
				supplier	Passivation	Silicon Oxide	7631-86-9		0.239	mg	17706	1328
Lead-frame	M-011 Other inorganic materials	60.140	mg	supplier	alloy	Copper (Cu)	7440-50-8		57.855	mg	962007	321416
				supplier	alloy	Nickel (Ni)	7440-02-0		1.804	mg	29995	10021
				supplier	alloy	Silicium (Si)	7440-21-3		0.391	mg	6499	2171
				supplier	alloy	Magnesium (Mg)	7439-95-4		0.090	mg	1500	501
Die Attach	M-011 Other inorganic materials	1.198	mg	supplier	glue or soft solder	Silver (Ag)	7440-22-4		0.911	mg	760000	5058
				supplier	glue or soft solder	2,2'-(methylenebis(phenyleneoxymethylene))	39817-09-9		0.090	mg	75000	499
				supplier	glue or soft solder	Dodeceny succinic anhydride	25377-73-5		0.090	mg	75000	499
				supplier	glue or soft solder	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.036	mg	30000	200
				supplier	glue or soft solder	Hexahydro-4-methylphthalic anhydride	19438-60-9		0.036	mg	30000	200
Wires	M-011 Other inorganic materials	0.780	mg	supplier	glue or soft solder	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8		0.036	mg	30000	200
				supplier	Bonding wire	Gold (Au)	7440-57-5		0.780	mg	1000000	4332
Encapsulation	M-011 Other inorganic materials	100.297	mg	supplier	Moulding Compound	Solid Epoxy Resin	Proprietary		7.660	mg	76377	42558
				supplier	Moulding Compound	Phenol Resin	Proprietary		5.472	mg	54555	30398
				supplier	Moulding Compound	Silica, vitreous	60676-86-0		86.454	mg	861976	480299
				supplier	Moulding Compound	Carbon-black	1333-86-4		0.547	mg	5455	3040
Finishing	M-011 Other inorganic materials	4.087	mg	supplier	Moulding Compound	Bismuth (Bi)	7440-69-9		0.164	mg	1637	912
				supplier	connections coating	Tin (Sn)	7440-31-5		4.087	mg	1000000	22706