



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 *	2018-03-01
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	MDG MD CHAMPION	Representative Title	MDG 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
STM32F103VBT7	U61L*410XXX	A	959	2018-03-01
	Amount	UoM	Unit type	ST ECOPACK Grade
	650.00	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	14x14x1.4	100	L Bend	
Comment	Package : 1L LQFP 100 14x14x1.4 1 0086901			

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	U61L*410XXX				6999997.0	1000003.0
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	8.374	mg	supplier	die	Silicon (Si)	7440-21-3		8.026	mg	958443	12348
				supplier	metallization	Aluminium (Al)	7429-90-5		0.024	mg	2866	37
				supplier	metallization	Copper (Cu)	7440-50-8		0.118	mg	14091	182
				supplier	metallization	Cobalt (Co)	7440-48-4		0.022	mg	2627	34
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	836	11
				supplier	metallization	Tungsten (W)	7440-33-7		0.013	mg	1552	20
				supplier	Passivation	Silicon Nitride	12033-89-5		0.015	mg	1791	23
Lead-frame	M-011 Other inorganic materials	135.052	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.149	mg	17793	229
				supplier	alloy	Copper (Cu)	7440-50-8		129.920	mg	962000	199877
				supplier	alloy	Nickel (Ni)	7440-02-0		4.052	mg	30000	6233.0
				supplier	alloy	Silicium (Si)	7440-21-3		0.878	mg	6500	1351
Lead-frame Coating	M-011 Other inorganic materials	0.559	mg	supplier	alloy	Magnesium (Mg)	7439-95-4		0.203	mg	1500	312
				supplier	coating	Nickel (Ni)	7440-02-0		0.520	mg	930510	800
				supplier	coating	Palladium (Pd)	7440-05-3		0.021	mg	37710	32
Die Attach	M-011 Other inorganic materials	2.338	mg	supplier	coating	Gold (Au)	7440-57-5		0.018	mg	31780	27
				supplier	glue or soft solder	Silver (Ag)	7440-22-4		1.560	mg	667368	2400
				supplier	glue or soft solder	Urethane acrylate oligomer	Proprietary		0.259	mg	110877	399
				supplier	glue or soft solder	Isobornyl Methacrylate	7534-94-3		0.259	mg	110877	399
Wires	M-011 Other inorganic materials	1.670	mg	supplier	glue or soft solder	Acrylate	Proprietary		0.259	mg	110877	399
				supplier	Bonding wire	Gold (Au)	7440-57-5		1.653	mg	990000	2543
				supplier	Bonding wire	Palladium (Pd)	7440-05-3		0.017	mg	10000	26
Encapsulation	M-011 Other inorganic materials	502.003	mg	supplier	Moulding Compound	Solid Epoxy Resin	Proprietary		35.181	mg	70080	54124
				supplier	Moulding Compound	Phenol Resin	Proprietary		25.129	mg	50057	38660
				supplier	Moulding Compound	Silica, vitreous	60676-86-0		434.155	mg	864845	667931
				supplier	Moulding Compound	Carbon-black	1333-86-4		2.513	mg	5006	3866
Finishing	M-011 Other inorganic materials	0.006	mg	supplier	Bismuth/Bismuth Compounds	Bismuth	7440-69-9		5.026	mg	10011	7732
				supplier	connections coating	Nickel (Ni)	7440-02-0		0.005	mg	930510	8
				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	37710	0
				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	31780	0