



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 *	28-03-2019
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
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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
STM32F103ZFT6	A11A*430XXA	A	1054	28-03-2019
	Amount	UoM	Unit type	ST ECOPACK Grade
	1315.00	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	20x20x1.4	144	L Bend	
Comment	Package : 1A LQFP 144 20X20X1.4 2 0099183			

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-27th June 2018				
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	A11A*430XXA				7000000.0	1000000.0
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	25.768	mg	supplier	die	Silicon (Si)	7440-21-3		24.702	mg	958631	18785
				supplier	metallization	Aluminium (Al)	7429-90-5		0.072	mg	2794	55
				supplier	metallization	Copper (Cu)	7440-50-8		0.362	mg	14048	275
				supplier	metallization	Cobalt (Co)	7440-48-4		0.067	mg	2600	51
				supplier	metallization	Titanium (Ti)	7440-32-6		0.020	mg	776	15
				supplier	metallization	Tungsten (W)	7440-33-7		0.039	mg	1514	30
				supplier	Passivation	Silicon Nitride	12033-89-5		0.047	mg	1824	36
Lead-frame	M-011 Other inorganic materials	265.814	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.459	mg	17813	349
				supplier	alloy	Copper (Cu)	7440-50-8		255.713	mg	962000	194458
				supplier	alloy	Nickel (Ni)	7440-02-0		7.974	mg	30000	6064
				supplier	alloy	Silicium (Si)	7440-21-3		1.728	mg	6500	1314
Lead-frame Coating	M-011 Other inorganic materials	1.404	mg	supplier	alloy	Magnesium (Mg)	7439-95-4		0.399	mg	1500	303
				supplier	coating	Nickel (Ni)	7440-02-0		1.306	mg	930510	993
				supplier	coating	Palladium (Pd)	7440-05-3		0.053	mg	37710	40
Die Attach	M-011 Other inorganic materials	6.647	mg	supplier	coating	Gold (Au)	7440-57-5		0.045	mg	31780	34
				supplier	glue or soft solder	Silver (Ag)	7440-22-4		5.234	mg	787500	3980
				supplier	glue or soft solder	Urethane acrylate oligomer	Proprietary		0.465	mg	70000	354
				supplier	glue or soft solder	Methacrylate	Proprietary		0.465	mg	70000	354
				supplier	glue or soft solder	Acrylate	Proprietary		0.465	mg	70000	354
Wires	M-011 Other inorganic materials	5.759	mg	supplier	glue or soft solder	Methacrylate	Proprietary		0.017	mg	2500	13
				supplier	Bonding wire	Gold (Au)	7440-57-5		5.759	mg	1000000	4380
				supplier	Moulding Compound	Solid Epoxy Resin	Proprietary		70.001	mg	69335	53233
Encapsulation	M-011 Other inorganic materials	1009.600	mg	supplier	Moulding Compound	Phenol Resin	Proprietary		50.001	mg	49525	38023
				supplier	Moulding Compound	Silica, vitreous	60676-86-0		874.598	mg	866282	665093
				supplier	Moulding Compound	Carbon-black	1333-86-4		5.000	mg	4953	3802
Finishing	M-011 Other inorganic materials	0.009	mg	supplier	Bismuth/Bismuth Compounds	Bismuth	7440-69-9		10.000	mg	9905	7605
				supplier	connections coating	Nickel (Ni)	7440-02-0		0.009	mg	930510	7
				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