Materials Declaration Form

IPC	**1752**	**Version**	**2**
Form Type *	Distribute		
Sectionals *	Material Info Manufacturing Info	**Subsectionals ***	A-D *** : Required Field***

Supplier Information			
Company Name *	STMicroelectronics	**Response Date ***	2017-01-09
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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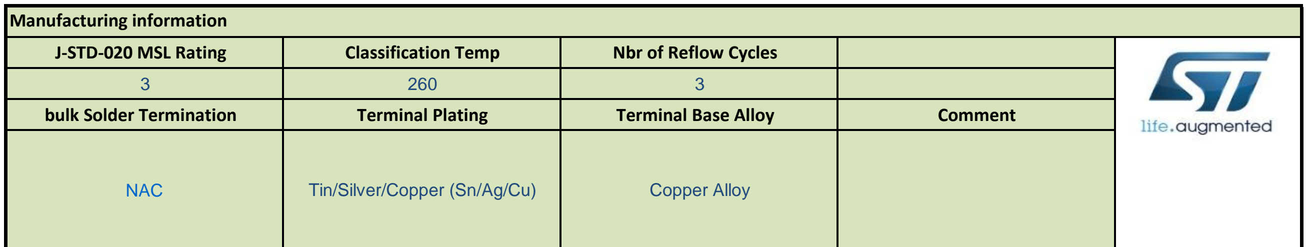
Legal Statement

Supplier Acceptance *	true	**Legal Declaration ***	Standard

Legal Statement

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 omprehensive 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**
STM32F103R4H6A	U0R8*412YYYA	A	959	2017-01-09
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	64.00	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**		
3	260	3		
bulk Solder Termination	**Terminal Plating**	**Terminal Base Alloy**	**Comment**	
NAC	Tin/Silver/Copper (Sn/Ag/Cu)	Copper Alloy		

Package Designator	**Size**	**Nbr of instances**	**Shape**	
BGA	5x5x1.2	64	No lead	
Comment	Package : R8 TFBGA 5x5x1.2 64 F8x8 0.5 7132897			

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**	**U0R8*412YYYA**				5999998.0	1000002.0
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	6.904	mg	supplier	die	Silicon (Si)	7440-21-3		6.477	mg	938152	101203
				supplier	metallization	Aluminium (Al)	7429-90-5		0.029	mg	4200	453
				supplier	metallization	Copper (Cu)	7440-50-8		0.145	mg	21002	2266
				supplier	metallization	Cobalt (Co)	7440-48-4		0.027	mg	3911	422
				supplier	metallization	Titanium (Ti)	7440-32-6		0.008	mg	1159	125
				supplier	metallization	Tungsten (W)	7440-33-7		0.016	mg	2317	250
				supplier	Passivation	Silicon Nitride	12033-89-5		0.019	mg	2752	297
				supplier	Passivation	Silicon Oxide	7631-86-9		0.183	mg	26506	2859
Substrate	M-011 Other inorganic materials	17.112	mg	supplier	core+ fiber glass	Bismaleimide (B)	13676-54-5		0.774	mg	45252	12100
				supplier	core+ fiber glass	Triazine (T)	25722-66-1		0.774	mg	45252	12100
				supplier	core+ fiber glass	Fiber glass	65997-17-3		2.310	mg	134990	36094
				supplier	core+ fiber glass	metal hydroxide	21645-51-2		0.053	mg	3068	820
				supplier	core+ fiber glass	Zinc hydroxide	20427-58-1		0.016	mg	920	246
				supplier	core+ fiber glass	Thermosetting resin	Proprietary		1.297	mg	75778	20262
				supplier	core+ fiber glass	Calcium sulfate	7778-18-9		0.026	mg	1534	410
				supplier	solder mask	Baryum sulfate	7727-43-7		0.243	mg	14199	3796
				supplier	solder mask	(2-methoxymethylethoxy)propanol	34590-94-8		0.040	mg	2366	633
				supplier	solder mask	Talc containing no asbestiform fibers	14807-96-6		0.135	mg	7888	2109
				supplier	solder mask	Quartz	14808-60-7		0.135	mg	7888	2109
				supplier	solder mask	Acrylates derivative	407-47-6		0.559	mg	32657	8732
				supplier	solder mask	aromatic hydrocarbon	Proprietary		0.054	mg	3155	844
				supplier	solder mask	amine compound	Proprietary		0.008	mg	473	127
				supplier	coating	Copper (Cu)	7440-50-8		10.586	mg	618639	165413
				supplier	coating	Nickel (Ni)	7440-02-0		0.080	mg	4696	1256
				supplier	coating	Gold (Au)	7440-57-5		0.021	mg	1244	333
Die Attach	M-011 Other inorganic materials	2.344	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		2.085	mg	889400	32571
				supplier	glue or tape	Neopentyl glycol dimethacrylate	1985-51-9		0.117	mg	50000	1831
				supplier	glue or tape	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.129	mg	55000	2014
				supplier	glue or tape	palmitic acid	57-10-3		0.002	mg	1000	37
				supplier	glue or tape	4-tert-butylcyclohexanol	98-52-2		0.007	mg	3000	110
				supplier	glue or tape	Hexamethyltetracosa-hexaene	111-02-4		0.002	mg	1000	37
				supplier	glue or tape	Fluorine trace	14762-94-8		0.001	mg	600	22
Wires	M-011 Other inorganic materials	0.351	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.351	mg	1000000	5483
Encapsulation	M-011 Other inorganic materials	30.661	mg	supplier	Moulding Compound	Biphenyl epoxy resin	85954-11-6		2.742	mg	89439	42849
				supplier	Moulding Compound	Phenol resin	205830-20-2		1.371	mg	44719	21424
				supplier	Moulding Compound	Quartz	14808-60-7		0.686	mg	22360	10712
				supplier	Moulding Compound	Silica, vitreous	60676-86-0		25.588	mg	834538	399814
				supplier	Moulding Compound	Carbon Black	1333-86-4		0.247	mg	8050	3856
				supplier	Moulding Compound	Magnesium dihydroxide	1309-42-8		0.027	mg	894	428
Solder Balls	M-011 Other inorganic materials	6.627	mg	supplier	solder	Tin (Sn)	7440-31-5		6.513	mg	982700	101763
				supplier	solder	Silver (Ag)	7440-22-4		0.080	mg	12000	1243
				supplier	solder	Copper (Cu)	7440-50-8		0.033	mg	5000	518
				supplier	solder	Nickel (Ni)	7440-02-0		0.001	mg	200	21
				JIG-R	solder	Lead (Pb)	7439-92-1		0.001	mg	100	10