




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 *	24-10-2017
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	MDG MD CHAMPION	Representative Title	MDG MD CHAMPION
Representative Phone *	Refer to Supplier Comment section		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
STM32L031K4U6	S4MG*425XXXX	A	998Z	24-10-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	49.08	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	
Not Applicable; if coating is used or other bulk termination	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	5X5X0.55	32	flat	
Comment	Package : A0B8 UFQFPN 5X5X0.55 32L 0.5 MM PITCH 8202208			

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-7th July 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	S4MG*425XXXX				6000001.0	0.0
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	2.035	mg	supplier	die	Silicon (Si)	7440-21-3		1.884	mg	925799	38388
				supplier	metallization	Aluminium (Al)	7429-90-5		0.013	mg	6388	265
				supplier	metallization	Copper (Cu)	7440-50-8		0.044	mg	21622	897
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.005	mg	2457	102
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	3440	143
				supplier	Passivation	Silicon Nitride	12033-89-5		0.012	mg	5897	245
				supplier	Passivation	Silicon Oxide	7631-86-9		0.070	mg	34398	1426
Die Attach Epoxy _ABLEBOND 8290_H	M-011 Other inorganic materials	0.281	mg	Supplier	Metals	Silver	7440-22-4		0.198	mg	704535	4033
				Supplier	Plastics/polymers	Bisphenol-F, epoxy resin	9003-36-5		0.014	mg	48437	277
				Supplier	Polymers	Fatty acids, polymers with epichlorohydrin	68475-94-5		0.014	mg	48437	277
				Supplier	Organic Compounds	Gamma Butyrolactone	96-48-0		0.014	mg	48437	277
				Supplier	Epoxy Resin	Epoxy Resin	Proprietary		0.014	mg	48437	277
				Supplier	Amines	Poly(Oxy(methyl-1, 2-ethanediyl))	9046-10-0		0.014	mg	48437	277
				Supplier	Metallic compounds	Copper Oxide	1317-38-0		0.014	mg	48437	277
Mold Compound_EME-G770_Sumitor	M-011 Other inorganic materials	17.907	mg	Supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy) butane	2425-79-8		0.001	mg	4844	28
				Supplier	Plastics/polymers	Epoxy Resin A	Proprietary		0.364	mg	19837	7416
				Supplier	Plastics/polymers	Epoxy Resin B	Proprietary		0.364	mg	19837	7416
				Supplier	Plastics/polymers	Phenol Resin A	Proprietary		0.364	mg	19837	7416
				Supplier	Plastics/polymers	Phenol Resin B	Proprietary		0.364	mg	19837	7416
				Supplier	Glass	Silica (Amorphous) A	60676-86-0		12.999	mg	732452	-735149
				Supplier	Glass	Silica (Amorphous) B	7631-86-9		2.986	mg	162767	60848
Supplier	Metallic compounds	Metal Hydroxide	Proprietary		0.364	mg	19837	7416				
Bonding wire_WIRE Ag SI TYPE_MKE	Bonding Wire	0.196	mg	Supplier	Additives	Carbon Black	1333-86-4		0.103	mg	5595	2092
				Supplier	Metals	Silver	7440-22-4		0.188	mg	960000	3827
				Supplier	Metals	Others	Proprietary		0.008	mg	40000	159
Anode Ball_Pure Tin_Nuonengda	M-011 Other inorganic materials	1.659	mg	Supplier	Metals	Tin	7440-31-5		1.659	mg	1000000	33812
Lead frame_C7+Ag_HDS	Copper & its alloys	27.000	mg	Supplier	Metals	Nickel	7440-02-0		0.793	mg	29365	16155
				Supplier	Glass	Silicon	7440-21-3		0.176	mg	6500	3576
				Supplier	Metals	Magnesium	7439-95-4		0.042	mg	1565	861
				Supplier	Metals	Silver	7440-22-4		1.701	mg	63000	34659
				Supplier	Metals	Copper	7440-50-8		24.288	mg	899570	494890