




## 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>	2017-01-25
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Patrick Crudo	<b>Representative Title</b>	MMS MD CHAMPION
<b>Representative Phone *</b>	(+33) 442 688 339	<b>Representative Email *</b>	<a href="mailto:patrick.crudo@st.com">patrick.crudo@st.com</a>
<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>	true	<b>Legal Declaration *</b>	Standard
<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 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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L151ZET6	P31A*437XXXZ	A	9998	2017-01-25
	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-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	P31A*437XXXZ					
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	Other inorganic materials	18.508	mg	supplier	die	Silicon (Si)	7440-21-3		17.918	mg	968122	13626
				supplier	metallization	Aluminium (Al)	7429-90-5		0.052	mg	2810	40
				supplier	metallization	Copper (Cu)	7440-50-8		0.171	mg	9239	130
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.020	mg	1081	15
				supplier	metallization	Titanium (Ti)	7440-32-6		0.026	mg	1405	20
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	54	1
				supplier	Passivation	Silicon Nitride	12033-89-5		0.045	mg	2431	34
				supplier	Passivation	Silicon Oxide	7631-86-9		0.275	mg	14858	209
LEADFRAME (MHT - C194)	Copper and its alloy	240.583	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		234.448	mg	974500	178288
				supplier	ALLOY	Iron (Fe)	7439-89-6		5.774	mg	24000	4391
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.289	mg	1200	220
				supplier	ALLOY	Metallic Phosphorous (P)	7723-14-0		0.072	mg	300	55
LEADFRAME (MHT - PPF Plating)	Other organic materials	9.285	mg	supplier	COATING	Nickel (Ni)	7440-02-0		9.039	mg	973500	6874
				supplier	COATING	Palladium (Pd)	7440-05-3		0.202	mg	21800	154
				supplier	COATING	Gold (Au)	7440-57-5		0.044	mg	4700	33
				supplier	GLUE	Silver(Ag)	7440-22-4		1.788	mg	700000	1360
DIE ATTACH (Sumitomo - 1076YB)	Other organic materials	2.555	mg	supplier	GLUE	Epoxy Resin A	9003-36-5		0.128	mg	50000	97
				supplier	GLUE	Silica fused	7631-86-9		0.255	mg	100000	194
				supplier	GLUE	Dicyandiamide	461-58-5		0.013	mg	5000	10
				supplier	GLUE	Diluent	3101-60-8		0.128	mg	50000	97
				supplier	GLUE	Allyl Compound	proprietary		0.128	mg	50000	97
				supplier	GLUE	Hardener	proprietary		0.115	mg	45000	87
BONDING WIRE (Heesung - Au HTS V)	Other inorganic materials	2.518	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		2.493	mg	990000	1896
				supplier	BONDING WIRE	Calcium (Ca)	7440-70-2		0.001	mg	200	0
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.025	mg	9800	19
ENCAPSULATION (Sumitomo -G631H)	Other inorganic materials	1040.839	mg	supplier	MOLDING COMPOUND	Epoxy Resin A	proprietary		20.817	mg	20000	15830
				supplier	MOLDING COMPOUND	Epoxy resin B	85954-11-6		41.634	mg	40000	31661
				supplier	MOLDING COMPOUND	Silica Amorphous A	60676-86-0		817.059	mg	785000	621337
				supplier	MOLDING COMPOUND	Silica Amorphous B	7631-86-9		88.471	mg	85000	67279
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		5.204	mg	5000	3958
FINISHING (MHT - PPF Plating)	Other organic materials	0.712	mg	supplier	MOLDING COMPOUND	Phenol Resin	proprietary		67.655	mg	65000	51448
				supplier	COATING	Nickel (Ni)	7440-02-0		0.629	mg	882600	478
				supplier	COATING	Palladium (Pd)	7440-05-3		0.037	mg	52400	28
				supplier	COATING	Gold (Au)	7440-57-5		0.046	mg	65000	35