




Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-12-17
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Patrick Crudo	Representative Title	MMS MD CHAMPION
Representative Phone *	(+33) 442 688 339	Representative Email *	patrick.crudo@st.com
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
STM32L152V8T6A	P41L*429XXXY	A	9998	2018-12-17
	Amount	UoM	Unit type	ST ECOPACK Grade
	681.44	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	
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-20th June 2016				
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	P41L*429XXY					
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 (choose)	Other inorganic materials	9.392	mg	supplier	die	Silicon (Si)	7440-21-3		9.092	mg	968058	13342
Die or Dies (choose)				supplier	metallization	Aluminium (Al)	7429-90-5		0.026	mg	2768	38
Die or Dies (choose)				supplier	metallization	Copper (Cu)	7440-50-8		0.087	mg	9263	128
Die or Dies (choose)				supplier	metallization	Tantalum (Ta)	7440-25-7		0.010	mg	1065	15
Die or Dies (choose)				supplier	metallization	Titanium (Ti)	7440-32-6		0.013	mg	1384	19
Die or Dies (choose)				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	106	1
Die or Dies (choose)				supplier	Passivation	Silicon Nitride	12033-89-5		0.023	mg	2449	34
Die or Dies (choose)				supplier	Passivation	Silicon Oxide	7631-86-9		0.140	mg	14906	205
LEADFRAME (HDS- C194)		158.908	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		154.856	mg	974500	227248
LEADFRAME (HDS- C194)				supplier	ALLOY	Iron (Fe)	7439-89-6		3.814	mg	24000	5597
LEADFRAME (HDS- C194)				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.191	mg	1200	280
LEADFRAME (HDS- C194)				supplier	ALLOY	Metallic Phosphorous (P)	7723-14-0		0.048	mg	300	70
LEADFRAME (HDS - uPPF Plating)		5.037	mg	supplier	COATING	Nickel (Ni)	7440-02-0		4.867	mg	966309	7143
LEADFRAME (HDS - uPPF Plating)				supplier	COATING	Palladium (Pd)	7440-41-7		0.120	mg	23824	176
LEADFRAME (HDS - uPPF Plating)				supplier	COATING	Gold (Au)	7440-57-5		0.028	mg	5519	41
LEADFRAME (HDS - uPPF Plating)				supplier	COATING	Silver (Ag)	7440-22-4		0.022	mg	4348	32
DIE ATTACH (Sumitomo - 1076YB)		1.673	mg	supplier	GLUE	Silver(Ag)	7440-22-4		1.171	mg	699993	1719
DIE ATTACH (Sumitomo - 1076YB)				supplier	GLUE	Epoxy Resin A	9003-36-5		0.084	mg	50003	123
DIE ATTACH (Sumitomo - 1076YB)				supplier	GLUE	Silica fused	7631-86-9		0.167	mg	99999	246
DIE ATTACH (Sumitomo - 1076YB)				supplier	GLUE	Dicyandiamide	461-58-5		0.008	mg	5000	12
DIE ATTACH (Sumitomo - 1076YB)				supplier	GLUE	Diluent	3101-60-8		0.084	mg	50003	123
DIE ATTACH (Sumitomo - 1076YB)				supplier	GLUE	Allyl Compound	Trade Secret		0.084	mg	50003	123
DIE ATTACH (Sumitomo - 1076YB)				supplier	GLUE	Hardener	Trade Secret		0.075	mg	45000	110
BONDING WIRE (MKE - 2N Au Wire)		1.534	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		1.519	mg	989961	2229
BONDING WIRE (MKE - 2N Au Wire)				supplier	BONDING WIRE	Calcium (Ca)	7440-70-2		0.001	mg	521	1
BONDING WIRE (MKE - 2N Au Wire)				supplier	BONDING WIRE	Palladium (Pd)	7440-41-7		0.015	mg	9517	21
ENCAPSULATION (Sumitomo -G631H)		504.895	mg	supplier	MOLDING COMPOUND	Epoxy Resin A	Trade secret		15.147	mg	30000	22228
ENCAPSULATION (Sumitomo -G631H)				supplier	MOLDING COMPOUND	Epoxy resin B	85954-11-6		35.343	mg	70000	51865
ENCAPSULATION (Sumitomo -G631H)				supplier	MOLDING COMPOUND	Silica fused (SiO3)	60676-86-0		424.112	mg	840000	622376
ENCAPSULATION (Sumitomo -G631H)				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		2.525	mg	5000	3705
ENCAPSULATION (Sumitomo -G631H)				supplier	MOLDING COMPOUND	Phenol Resin	Trade Secret		27.769	mg	55000	40751