



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 *	2018-12-07
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 *	Floriana SAN BIAGIO	Representative Title	AMS 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 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
	2NL4*VB39ADY	A	Z7GA	2018-12-07
Amount	UoM	Unit type	ST ECOPACK Grade	
44	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	4x4x1	24	flat	
Comment	B02V VFQFPN 4X4X1 24L WF; MDF valid for STUSB1700YQTR			

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	ZNL4*VB39ADY				6000003.0	1000021.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	4.938	mg	supplier	die	Silicon (Si)	7440-21-3		4.777	mg	967396	108568
				supplier	metallization	Aluminium (Al)	7429-90-5		0.014	mg	2835	318
				supplier	metallization	Copper (Cu)	7440-50-8		0.056	mg	11341	1273
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.013	mg	2633	295
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	1215	136
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	203	23
				supplier	Passivation	Silicon Nitride	12033-89-5		0.017	mg	3443	386
				supplier	Passivation	Silicon Oxide	7631-86-9		0.054	mg	10936	1227
				supplier	alloy	Copper (Cu)	7440-50-8		14.376	mg	954962	326727
				supplier	alloy	Chromium (Cr)	7440-47-3		0.347	mg	23050	7886
Leadframe	M-004 Copper and its alloys	15.054	mg	supplier	alloy	Tin (Sn)	7440-31-5		0.018	mg	1196	409
				supplier	alloy	Zinc (Zn)	7440-66-6		0.012	mg	797	273
				supplier	metallization	Silver (Ag)	7440-22-4		0.301	mg	19995	6841
				supplier	glue	Silver (Ag)	7440-22-4		0.442	mg	812500	10045
				supplier	glue	(Octahydro-4,7-methano-1 H-indenediy)bis(m	42594-17-2		0.033	mg	60662	750
Die attach	M-015 Other organic materials	0.544	mg	supplier	glue	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl met	7534-94-3		0.033	mg	60662	750
				supplier	glue	Isobornyl acrylate	5888-33-5		0.033	mg	60662	750
				supplier	glue	2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	3388-04-3		0.003	mg	5515	68
				supplier	wire	Gold (Au)	7440-57-5		0.326	mg	1000000	7409
Bonding wires	M-008 Precious metals	0.326	mg	supplier	molding compound	Epoxy Resin	Proprietary		1.064	mg	50014	24182
				supplier	molding compound	Phenol Resin	Proprietary		0.489	mg	22986	11114
				supplier	molding compound	Silica (Amorphous)A	60676-86-0		18.083	mg	850005	410977
				supplier	molding compound	Silica (Amorphous)B	7631-86-9		1.064	mg	50014	24182
				supplier	molding compound	Metal Hydroxide	Proprietary		0.489	mg	22986	11114
				supplier	molding compound	Carbon Black	1333-86-4		0.085	mg	3995	1932
Encapsulation	M-015 Other organic materials	21.274	mg	supplier	connection coating	Tin (Sn)	7440-31-5		1.865	mg	1000000	42386
				supplier	connection coating	Tin (Sn)	7440-31-5		1.865	mg	1000000	42386
Finishing	M-011 Other inorganic materials	1.865	mg	supplier	connection coating	Tin (Sn)	7440-31-5		1.865	mg	1000000	42386
				supplier	connection coating	Tin (Sn)	7440-31-5		1.865	mg	1000000	42386