



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 *	2017-09-27
Company Unique ID	NL 008751171801		
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	AMG 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
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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
	8YND*VB39ADJ	A	Z6HA	2017-09-27
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		
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
QFN	4x4x1	24	No lead	
Comment	Package: ND VFQFPN 4x4x1.0 24 PITCH 0.5; MDF valid for STUSB1602AQTR			

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	8YND*VB39ADJ				5000001.0	1000001.0
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	4.633	mg	supplier	die	Silicon (Si)	7440-21-3		4.472	mg	965249	101636
				supplier	metallization	Aluminium (Al)	7429-90-5		0.014	mg	3022	318
				supplier	metallization	Copper (Cu)	7440-50-8		0.056	mg	12087	1273
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.013	mg	2806	295
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	1295	136
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	216	23
				supplier	Passivation	Silicon Nitride	12033-89-5		0.017	mg	3669	386
Leadframe	M-004 Copper and its alloys	17.691	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.054	mg	11656	1227
				supplier	alloy	Copper (Cu)	7440-50-8		16.904	mg	95514	384182
				supplier	alloy	Iron (Fe)	7439-89-6		0.397	mg	22441	9023
				supplier	alloy	Phosphorus (P)	7723-14-0		0.099	mg	5596	2250
				supplier	alloy	Zinc (Zn)	7440-66-6		0.022	mg	1244	500
				supplier	metallization	Nickel (Ni)	7440-02-0		0.254	mg	14358	5773
				supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	283	114
Die attach	M-015 Other organic materials	0.772	mg	supplier	metallization	Gold (Au)	7440-57-5		0.005	mg	283	114
				supplier	metallization	Silver (Ag)	7440-22-4		0.005	mg	283	114
				supplier	glue	Silver	7440-22-4		0.681	mg	882124	15477
				supplier	glue	2-Propionic acid, methyl ester reaction product	Proprietary		0.068	mg	88083	1545
				supplier	glue	2-Propenoic acid, 2-methyl-, 2-[[2,3,3a,4,7,7a]	68586-19-6		0.020	mg	25907	455
				supplier	glue	Bis(alpha.,alpha.-Dimethylbenzyl) peroxide	80-43-3		0.001	mg	1295	23
				supplier	glue	2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	3388-04-3		0.002	mg	2591	45
Bonding wires	M-011 Other inorganic materials	0.048	mg	supplier	wire	Copper (Cu)	7440-50-8		0.048	mg	1000000	1091
Encapsulation	M-015 Other organic materials	20.856	mg	supplier	mold compound	Epoxy resin	29690-82-2		0.625	mg	29967	14205
				supplier	mold compound	Phenol resin	25068-38-6		0.625	mg	29967	14205
				supplier	mold compound	Silica (Amorphous) A	60676-86-0		16.737	mg	802503	380386
				supplier	mold compound	Silica (Amorphous) B	7631-86-9		2.816	mg	135021	64000
				supplier	mold compound	Carbon Black	1333-86-4		0.053	mg	2541	1205