



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 *	2018-04-27
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	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
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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
	ENZD*V891IL1	A	Z7GA	2018-04-27
Amount	UoM	Unit type	ST ECOPACK Grade	
2.3	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
1	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	1.0x1.2x0.5	6	flat	
Comment	ZD VFDFPN 6 1.0x1.2x0.5 PITCH0.4; MDF valid for AS11P2TLRQ			

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-15th January 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	ENZO*V891L1				5000004.0	999132.0
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	0.131	mg	supplier	die	Silicon (Si)	7440-21-3		0.120	mg	916031	52174
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	15267	870
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	15267	870
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	7634	435
				supplier	Passivation	Silicon Oxide	7631-86-9		0.006	mg	45802	2609
Leadframe	M-004 Copper and its alloys	0.587	mg	supplier	Alloy	Copper (Cu)	7440-50-8		0.576	mg	981261	250435
				supplier	Alloy	Zinc (Zn)	7440-66-6		0.001	mg	1704	435
				supplier	Alloy	Chromium (Cr)	7440-47-3		0.001	mg	1704	435
				supplier	Alloy	Tin (Sn)	7440-31-5		0.001	mg	1704	435
				supplier	Terminal Plating	Nickel (Ni)	7440-02-0		0.008	mg	13629	3478
Die attach	M-015 Other organic materials	0.065	mg	supplier	Glue	Aluminium oxide	1344-28-1		0.033	mg	507692	14348
				supplier	Glue	2-(2-Ethoxyethoxy)ethyl acetate	112-15-2		0.013	mg	200000	5652
				supplier	Glue	Phenol, 4,4'-(1-methylethylene)bis-, polymer	25036-25-3		0.013	mg	200000	5652
				supplier	Glue	Reaction product: bisphenol A-(epichlorhydrin)	25068-38-6		0.003	mg	46154	1304
				supplier	Glue	Dapsone	80-08-0		0.003	mg	46154	1304
Bonding wires	M-008 Precious metals	0.039	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.039	mg	1000000	16957
Encapsulation	M-015 Other organic materials	1.476	mg	supplier	Molding compound	Silica fused	60676-86-0		1.337	mg	905827	581304
				supplier	Molding compound	Epoxy resin	29690-82-2		0.069	mg	46748	30000
				supplier	Molding compound	Phenol resin	25068-38-6		0.069	mg	46748	30000
				supplier	Molding compound	Carbon black	1333-86-4		0.001	mg	678	435