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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 *	2016-02-19
Contact Name *	Refer to "Supplier Comment" section	Contact Title	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 Materials Declaration 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/internet/com/support/online_tech_support.jsp		

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
	ENZ8*V84AIL1	A	Z7GA	2016-02-19
Amount	UoM	Unit type	ST ECOPACK Grade	
3.50	mg	Each	ECOPACK® 3	

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 ; if coating is used c	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	1.8x1.4x0.5	10	No lead	
Comment	Package: Z8 VFQFPN 10 1.8x1.4x0.5 PITCH 0.4; MDF valid for AS21P2TLRQ			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-17th December 2015				
Query				Response
The product 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	ENZ8*V84AIL1					
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	0.327	mg	supplier	die	Silicon (Si)	7440-21-3		0.29	mg	886850	82857
Die				supplier	metallization	Aluminum (Al)	7429-90-5		0.003	mg	9174	857
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	3058	286
Die				supplier	metallization	Tungsten (W)	7440-33-7		0.005	mg	15291	1429
Die				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	6116	571
Die				supplier	Passivation	Silicon Oxide	7631-86-9		0.013	mg	39755	3714
Die				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.013	mg	39755	3714
Leadframe	Copper & its alloys	0.692	mg	supplier	alloy	Copper (Cu)	7440-50-8		0.366	mg	528902	104571
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.001	mg	1445	286
Leadframe				supplier	alloy	Tin (Sn)	7440-31-5		0.001	mg	1445	286
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.001	mg	1445	286
Leadframe	Nickel (Ni)			supplier	metallization	Nickel (Ni)	7440-02-0		0.296	mg	427746	84571
Leadframe	Precious metals			supplier	metallization	Iron Phosphide (Fe2P)	1310-43-6		0.019	mg	27457	5429
Leadframe	Precious metals			supplier	metallization	Gold (Au)	7440-57-5		0.008	mg	11561	2286
Die Attach	Other Organic Materials	0.103	mg	supplier	glue	Aluminum oxide	1344-28-1		0.036	mg	349515	10286
Die Attach				supplier	glue	Diethylene glycol monoethyl ether acetate	112-15-2		0.031	mg	300971	8857
Die Attach				supplier	glue	Epoxy resin A	Proprietary		0.021	mg	203883	6000
Die Attach				supplier	glue	Epoxy resin B	Proprietary		0.01	mg	97087	2857
Die Attach				supplier	glue	Amine	Proprietary		0.005	mg	48544	1429
Bonding Wires	Precious metals	0.179	mg	supplier	wire	Gold (Au)	7440-57-5		0.179	mg	1000000	51143
encapsulation	Other Organic Materials	2.198	mg	supplier	mold compound	Silica, vitreous	60676-86-0		2.036	mg	926297	581714
encapsulation				supplier	mold compound	epoxy resin	85954-11-6		0.088	mg	40036	25143
encapsulation				supplier	mold compound	phenol resin	26834-02-6		0.066	mg	30027	18857
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.008	mg	3640	2286
										mg		