




Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2016-01-13
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	AMS 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
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
	DBC8*F128BH9	A	ZW1A	2016-01-13
Amount	UoM	Unit type	ST ECOPACK Grade	
67.00	mg	Each	ECOPACK® 3	

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

Package Designator	Size	Nbr of instances	Shape	
QFN	5-5-0.9	32	No lead	
Comment	Package: VFQFPN32 5X5X0.9 3.6X3.6EP 0.5P; MDF valid for BLUENRG-MSQTR			

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	DBC8*F128BH9					
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	6.641	mg	supplier	die	Silicon (Si)	7440-21-3		6.219	mg	936455	92821
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.014	mg	2108	209
Die				supplier	metallization	Copper (Cu)	7440-50-8		0.127	mg	19124	1896
Die				supplier	metallization	Tantalum (Ta)	7440-25-7		0.281	mg	42313	4194
Leadframe				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	30	15
Leadframe				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	30	15
Leadframe				supplier	Passivation	Silicon Nitride	12033-89-5		0.033	mg	990	493
Leadframe				supplier	Passivation	Silicon Oxide	7631-86-9		0.082	mg	2460	1224
Leadframe	Copper & its alloys	33.337	mg	supplier	alloy	Copper (Cu)	7440-50-8		31.507	mg	945106	470254
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.904	mg	27117	13493
Leadframe				supplier	alloy	Phosphorous (P)	12185-10-3		0.012	mg	360	179
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.046	mg	1380	687
Leadframe				supplier	coating	Nickel (Ni)	7440-02-0		0.727	mg	21808	10851
Leadframe				supplier	coating	Palladium (Pd)	7440-05-3		0.016	mg	480	239
Leadframe				supplier	coating	Gold (Au)	7440-57-5		0.008	mg	240	119
Die attach	Other inorganic materials	0.536	mg	supplier	glue	Silver (Ag)	7440-22-4		0.522	mg	973881	7791
Die attach				supplier	glue	2-propionic acid methylester reaction product	Proprietary		0.012	mg	22388	179
Die attach				supplier	glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.001	mg	1866	15
Die attach				supplier	glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.001	mg	1866	15
Bonding wire	Precious metals	0.910	mg	supplier	bonding wire	Gold (Au)	7440-57-5		0.91	mg	1000000	13582
encapsulation	Other inorganic materials	25.576	mg	JIG I	molding compound	Carbon black	1333-86-4		0.078	mg	3050	1164
encapsulation				supplier	molding compound	Epoxy resin	Proprietary		1.087	mg	42501	16224
encapsulation				supplier	molding compound	Phenol resin	Proprietary		0.776	mg	30341	11582
encapsulation				supplier	molding compound	Silica, vitreous	60676-86-0		23.635	mg	924109	352761