



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 *	2015-07-31
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 *	Giovanni Giacobello	Representative Title	IPD 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

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
	QM31*U188AB5	A	Z6HA	2015-07-31
Amount	UoM	Unit type	ST ECOPACK Grade	
40.10	mg	Each	ECOPACK® 2	

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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	4x4x1	8	No lead	
Comment	Package:VFDFPN 4x4x1.0 8L PITCH 0.8; MDF valid for LD39200DPUR			

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-15th June 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	QM31*U188AB5					
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	1.591	mg	supplier	die	Silicon (Si)	7440-21-3		1.492	mg	937775	37207
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.018	mg	11314	449
Die				supplier	metallization	Tungsten (W)	7440-33-7		0.015	mg	9428	374
Die				supplier	Passivation	Silicon Nitride	12033-89-5		0.004	mg	2514	100
Die				supplier	Passivation	Silicon Oxide	7631-86-9		0.031	mg	19485	773
Die				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	629	25
Die				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	2514	100
Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	4400	175
Die				supplier	polymer die coating	PIX1 Gamima-butylolactone	96-48-0		0.019	mg	11942	474
Leadframe	Copper and its alloy	14.931	mg	supplier	alloy	Copper (Cu)	7440-50-8		14.381	mg	963164	358628
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.337	mg	22570	8404
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.004	mg	268	100
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.019	mg	1273	474
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.172	mg	11520	4289
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.016	mg	1072	399
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	134	50
Die attach	Other inorganic materials	0.344	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.236	mg	686047	5885
Die attach				supplier	glue or tape	methylene diacrylate	42594-17-2		0.086	mg	250000	2145
Die attach				supplier	glue or tape	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.01	mg	29070	249
Die attach				supplier	glue or tape	Polymer of Polybutadiene + Anhydride	Proprietary		0.01	mg	29070	249
Die attach				supplier	glue or tape	Bis(alpha-dimethylbenzyl) peroxide	80-43-3		0.002	mg	5814	50
Bonding wire	Other inorganic materials	0.071	mg	supplier	wire	Copper (Cu)	7440-50-8		0.071	mg	1000000	1771
encapsulation	Other inorganic materials	23.163	mg	supplier	mold compound	Silica, vitreous	60676-86-0		21.703	mg	936968	541222
encapsulation				supplier	mold compound	epoxy resin	85954-11-6		0.695	mg	30005	17332
encapsulation				supplier	mold compound	phenol resin	26834-02-6		0.695	mg	30005	17332
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.07	mg	3022	1746