



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 *	12/19/2014
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 *	Giuseppe Vitali Palma	Representative Title	AMS & 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
	1F39*KR33FC1	A	Z8GA	12/19/2014
Amount	UoM	Unit type	ST ECOPACK Grade	
59.000	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SOT	4.5X2.45X1.5	4	gull wing	
Comment	Package: SOT 89; MD valid for LD2981CU33TR			

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-16th June 2014				
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	1F39*KR33FC1					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon die	Other inorganic materials	0.967	mg	supplier	Silicon die	Silicon	7440-21-3		0.932	mg	963806	15797
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.015	mg	15512	254
Silicon die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.004	mg	4137	68
Silicon die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.008	mg	8273	136
Silicon die				supplier	passivation	Gamma-butyrolactone	96-48-0		0.006	mg	6205	102
Silicon die				supplier	passivation	Polyhydroxyamide	55295-98-2		0.002	mg	2068	34
Leadframe	Copper and its alloy	32.118	mg	Supplier	Alloy	Copper(CU)	7440-50-8		31.793	mg	991579	538864
Leadframe				Supplier	Alloy	Iron(Fe)	7439-89-6		0.159	mg	4959	2695
Leadframe				Supplier	Alloy	Iron phosphide (Fe2P)	1310-43-6		0.079	mg	2464	1339
Leadframe				Supplier	Alloy	Silver(Ag)	7440-22-4		0.032	mg	998	542
Die attach	Other organic materials	0.19	mg	supplier	Glue	Silver(Ag)	7440-22-4		0.144	mg	757895	2441
Die attach				supplier	Glue	Acrylate resin	Proprietary		0.028	mg	147368	475
Die attach				supplier	Glue	Heterocyclic organic compound	Proprietary		0.014	mg	73684	237
Die attach				supplier	Glue	Treated silica	Proprietary		0.004	mg	21053	68
Bonding wire	Other inorganic materials	0.058	mg	supplier	Bonding wire	Gold(Au)	7440-57-5		0.058	mg	1000000	983
Encapsulation	Other organic materials	24.5	mg	supplier	Molding compound	2,2'-((3,3',5,5'-tetramethyl-(1,1'-biphenyl)-4,4'	EC 413-900-7		2.497	mg	101690	42322
Encapsulation				supplier	Molding compound	Epoxy Resin	29690-82-2		1.243	mg	50621	21068
Encapsulation				supplier	Molding compound	Phenol Resin	Proprietary		1.243	mg	50621	21068
Encapsulation				supplier	Molding compound	Silica, vitreous	60676-86-0		19.323	mg	786927	327508
Encapsulation				supplier	Molding compound	Carbon Black	1333-86-4		0.249	mg	10141	4220
Finishing	Other inorganic materials	1.167	mg	supplier	Connections coating	Tin(Sn)	7440-31-5		1.167	mg	1000000	19780