



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 *	2015-06-05
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 Giacopello	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
	MFVV*KN33FC1	A	Z8GA	2015-06-05
Amount	UoM	Unit type	ST ECOPACK Grade	
17.10	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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2.82X1.52X1.25	5	gull wing	
Comment	Package: SOT23 5L; MDF valid for LK112M33TR			

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	MFWV*KN33FC1					
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	0.765	mg	supplier	die	Silicon (Si)	7440-21-3		0.737		963399	43099
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.011		14379	643
Silicon Die				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.003		3922	175
Silicon Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.006		7843	351
Silicon Die				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.008		10458	468
Leadframe	Copper & its alloys	6.36	mg	supplier	alloy	Copper(CU)	7440-50-8		6.046		950629	353567
Leadframe				supplier	alloy	Iron(Fe)	7439-89-6		0.146		22956	8538
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.005		786	292
Leadframe				supplier	alloy	Zinc(Zn)	7440-66-6		0.008		1258	468
Leadframe				supplier	metallization	Silver(Ag)	7440-22-4		0.155		24371	9064
Die attach	Other Organic Materials	0.192	mg	supplier	glue	Silver (Ag)	7440-22-4		0.162		843750	9474
Die attach				supplier	glue	Acrylate resins	7534-94-3		0.023		119792	1345
Die attach				supplier	glue	Heterocyclic organic compound	3006-93-7		0.006		31250	351
Die attach				supplier	glue	Fluoroaliphatic Polymeric Esters	1017237-78-3		0.001		5208	58
Bonding wire	Precious metals	0.669	mg	supplier	Bonding wire	Gold(Au)	7440-57-5		0.669		1000000	39123
Encapsulation	Other Organic Materials	8.911	mg	supplier	Molding compound	Fused Silica	60676-86-0		6.951		780047	406491
Encapsulation				supplier	Molding compound	Solid Epoxy Resin	85954-11-6		0.98		109976	57310
Encapsulation				supplier	Molding compound	Phenol Resin	26834-02-6		0.98		109976	57310
Finishing	Other inorganic materials	0.203	mg	supplier	Connections coating	Tin(Sn)	7440-31-5		0.203		1000000	11871