



Materials Declaration Form

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

* : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	01/05/2015
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
	TSFP*VJL4B52	A	SH1A	01/05/2015
Amount	UoM	Unit type	ST ECOPACK Grade	
1900.000	mg	Each	ECOPACK® 2	

Manufacturing information					
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented		
NAC	NAC	NAC			
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	
SIP	10.2X9.2X4.5	2	Through-hole	
Comment	Package: TO 220 ISO FULL PACK IN LINE; MD valid for STF10N95K5			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

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	TSFP*VJL4B52					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	10.865	mg	supplier	die	Silicon (Si)	7440-21-3		10.474	mg	964013	5513
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.139	mg	12793	73
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.045	mg	4142	24
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.106	mg	9756	56
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.005	mg	460	3
die (s)				supplier	back side metallization	Silver (Ag)	7440-22-4		0.025	mg	2301	13
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.071	mg	6535	37
Leadframe	Copper & its alloys	659.683	mg	supplier	alloy	Copper (Cu)	7440-50-8		658.811	mg	998678	346743
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.66	mg	1000	347
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.198	mg	300	104
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.013	mg	20	7
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.001	mg	2	1
Die attach	Other Organic Materials	7.551	mg	JIG R	Soft solder	Lead (Pb)	7439-92-1	7a-Lead in high me	7.211	mg	954973	3795
Die attach				supplier	Soft solder	Silver (Ag)	7440-22-4		0.189	mg	25030	99
Die attach				supplier	Soft solder	Tin (Sn)	7440-31-5		0.151	mg	19997	79
Bonding wire	Other inorganic materials	1.104	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.103	mg	999094	581
Bonding wire				supplier	wire	Magnesium (Mg)	7429-90-5		0.001	mg	906	1
encapsulation	Other Organic Materials	1214.931	mg	supplier	mold compound	Silica, vitreous	60676-86-0		91.12	mg	75000	47958
encapsulation				supplier	mold compound	Quartz	14808-60-7		850.452	mg	700000	447606
encapsulation				supplier	mold compound	Epoxy resin	Proprietary		170.09	mg	140000	89521
encapsulation				supplier	mold compound	phenol resin	Proprietary		85.045	mg	70000	44761
encapsulation				supplier	mold compound	carbon black	1333-86-4		6.075	mg	5000	3197
encapsulation				supplier	mold compound	metal hydroxide	Proprietary		12.149	mg	10000	6394
connections coating	Solder	5.866	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.866	mg	1000000	3087