



## Materials Declaration Form

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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2014-05-08
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	Refer to "Supplier Comment" section
<b>Authorized Representative *</b>	Giovanni Giacopello	<b>Representative Title</b>	AMS & IPD Materials Declaration Champion
<b>Representative Phone *</b>	Refer to "Supplier Comment" section	<b>Representative Email *</b>	Refer to "Supplier Comment" section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</a>		

**Uncertainty Statement**


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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
	XMDP*5L34A52	A	SH1A	2014-05-08
Amount	UoM	Unit type	ST ECOPACK Grade	
340.00	mg	Each	ECOPACK® 1	

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 on	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	6.5 - 6.1 - 2.3	3	gull wing	
Comment	Package: TO 252 DPAK; MDF valid for STD86N3LH5			

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 December 2013				
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	XMDP*5L34A52					
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	3.16	mg	supplier	die	Silicon (Si)	7440-21-3		2.904	mg	918987	8541
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.035	mg	11076	103
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.143	mg	45253	421
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	1899	18
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.001	mg	316	3
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.035	mg	11076	103
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	633	6
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	1899	18
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.028	mg	8861	82
Leadframe	Copper & its alloys	165.638	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.219	mg	991433	482997
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.164	mg	990	482
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.049	mg	296	144
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		1.199	mg	7239	3526
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.007	mg	42	21
Soft solder	Solder	2.829	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	2.701	mg	954754	7944
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.071	mg	25097	209
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.057	mg	20148	168
Bonding wire	Other inorganic materials	2.292	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.291	mg	999564	6738
Bonding wire				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	436	3
encapsulation	Other Organic Materials	165.036	mg	supplier	mold compound	Silica, vitreous	60676-86-0		132.028	mg	799995	388318
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		11.553	mg	70003	33979
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		6.602	mg	40003	19418
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		9.902	mg	59999	29124
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		1.981	mg	12003	5826
encapsulation				JIG I	mold compound	Brominated Epoxy Resin	40039-93-8		2.475	mg	14997	7279
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.495	mg	2999	1456
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3074