



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2015-01-21
<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
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**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
	87D1*TPW024U	A	SH1A	2015-01-21
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	245	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	
SIP	10.2,10.5,1.27	3	gull wing	
Comment	Package: D2PAK CLIP; MDF valid for RBO40-40G; RBO40-40GTR			

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	87D1*TPW024U					
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	12.409	mg	supplier	die	Silicon (Si)	7440-21-3		11.875	mg	956967	8605
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.126	mg	10154	91
die (s)				supplier	metallization	Gold (Au)	7440-57-5		0.027	mg	2176	20
die (s)				supplier	passivation	Gamma-butyrolactone	96-48-0		0.067	mg	5399	49
die (s)				supplier	passivation	Polyhydroxyamide	55295-98-2		0.03	mg	2418	22
die (s)				supplier	passivation	Alcoxysilane	proprietary		0.002	mg	161	1
die (s)				supplier	passivation	Aryl Siliclic Acid	proprietary		0.001	mg	81	1
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.013	mg	1048	9
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.268	mg	21597	194
Leadframe	Copper & Its alloys	897.781	mg	supplier	alloy	Copper (Cu)	7440-50-8		896.883	mg	999000	649915
Leadframe				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.898	mg	1000	651
Soft solder	Solder	15.409	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	13.56	mg	880005	9826
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		1.541	mg	100006	1117
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.308	mg	19988	223
Bonding wire	Other inorganic materials	71.018	mg	supplier	wire	Copper (Cu)	7440-50-8		71.018	mg	1000000	51462
encapsulation	Other Organic Materials	377.069	mg	supplier	mold compound	Antimony Trioxide	1309-64-4		11.312	mg	30000	8197
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		273.374	mg	724997	198097
encapsulation				supplier	mold compound	Quartz	14808-60-7		1.886	mg	5002	1367
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		33.936	mg	89999	24591
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		1.886	mg	5002	1367
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		47.134	mg	125001	34155
encapsulation				JIG I	mold compound	Brominated Epoxy Resin	68928-70-1		7.541	mg	19999	5464
connections coating	Solder	6.314	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.314	mg	1000000	4575