



## 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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	03/25/2015
<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>	Giuseppe Vitali Palma	<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
	TLDP*5H32A52	A	SH1A	03/25/2015
Amount	UoM	Unit type	ST ECOPACK Grade	
331.00	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	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	6.5X6.1X2.3	2	gull wing	
Comment	Package: TO 252 DPAK; MD valid for STD35N3LH5			

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-17th December 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	TLPD*5H32A52					
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	2.346	mg	supplier	die	Silicon (Si)	7440-21-3		2.233	mg	951833	6746
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.075	mg	31969	227
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	1705	12
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.022	mg	9378	66
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	426	3
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	853	6
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	3836	27
Leadframe	Copper & its alloys	153.278	mg	supplier	alloy	Copper (Cu)	7440-50-8		152.98	mg	998056	462175
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.153	mg	998	462
Leadframe				supplier	alloy	Iron Phosphide (Fe2P)	1310-43-6		0.046	mg	300	139
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	600	278
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.007	mg	46	21
Soft solder	Other Organic Materials	1.222	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	1.167	mg	954992	3526
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.031	mg	25368	94
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.024	mg	19640	73
Bonding wire	Other inorganic materials	0.868	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.868	mg	1000000	2622
encapsulation	Other Organic Materials	172.241	mg	supplier	mold compound	Silica, vitreous	60676-86-0		137.792	mg	799995	416290
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		12.057	mg	70001	36426
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		6.89	mg	40002	20816
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		10.334	mg	59997	31221
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		2.067	mg	12001	6245
encapsulation				JIG I	mold compound	Brominated Epoxy Resin	40039-93-8		2.584	mg	15002	7807
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.517	mg	3002	1562
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3157