



## 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>	2014-07-16
<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
	7SD2*F54Q02Y	A	SH1A	2014-07-16
Amount	UoM	Unit type	ST ECOPACK Grade	
1369.292	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	10.2X9.15X4.5	1	gull wing	
Comment	Package: D2PAK; MD valid for STP244B-1			

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	7SD2*F54Q02Y					
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	10.737	mg	supplier	die	Silicon (Si)	7440-21-3		10.099	mg	940579	7375
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.418	mg	38931	505
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.009	mg	838	7
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.015	mg	1397	11
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.045	mg	4191	33
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.062	mg	5774	45
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.005	mg	466	4
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.015	mg	1397	11
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.069	mg	6426	50
Leadframe	Copper & its alloys	785.556	mg	supplier	alloy	Copper (Cu)	7440-50-8		784.436	mg	998574	572877
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.785	mg	999	573
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.236	mg	300	172
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	117	67
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.007	mg	9	5
Soft solder	Other Organic Materials	7.307	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	6.978	mg	954975	5096
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.183	mg	25044	134
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.146	mg	19981	107
Bonding wire	Other inorganic materials	2.769	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.769	mg	1000000	2022
encapsulation	Other Organic Materials	561.878	mg	supplier	mold compound	Silica, vitreous	60676-86-0		449.502	mg	799999	328273
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		39.331	mg	69999	28724
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		22.475	mg	40000	16414
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		33.713	mg	60001	24621
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		6.743	mg	12001	4924
encapsulation				JIG I	mold compound	Brominated Epoxy Resin	40039-93-8		8.428	mg	15000	6155
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.686	mg	3001	1231
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	763