



Materials Declaration Form

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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	02/12/2015
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
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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*Q29Q022	A	SH1A	02/12/2015
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	 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	2	gull wing	
Comment	Package: D2PAK; md VALID FOR STPS40L45CG-TR; STPS40L45CG			

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	7SD2*Q29Q022					
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	15.743	mg	supplier	die	Silicon (Si)	7440-21-3		14.874	mg	944801	10778
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.569	mg	36143	412
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.013	mg	826	9
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.02	mg	1270	14
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.062	mg	3938	45
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.084	mg	5336	61
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.007	mg	445	5
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.02	mg	1270	14
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.094	mg	5971	68
Leadframe	Copper & Its alloys	772.572	mg	supplier	alloy	Copper (Cu)	7440-50-8		771.469	mg	998572	559036
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.772	mg	999	559
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.232	mg	300	168
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	119	67
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.007	mg	9	5
Soft solder	Other Organic Materials	9.532	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	9.103	mg	954994	6596
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.238	mg	24969	172
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.191	mg	20038	138
Bonding wire	Other inorganic materials	2.769	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.769	mg	1000000	2007
encapsulation	Other Organic Materials	578.339	mg	supplier	mold compound	Silica, vitreous	60676-86-0		462.671	mg	800000	335269
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		40.484	mg	70000	29336
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		23.134	mg	40001	16764
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		34.7	mg	59999	25145
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		6.94	mg	12000	5029
encapsulation				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		8.675	mg	15000	6286
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.735	mg	3000	1257
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	757