



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-12-03
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 *	Giovanni Giacopello	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
	HSDK*I77R01G	A	SH1A	2014-12-03
Amount	UoM	Unit type	ST ECOPACK Grade	
1870.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
NAC	NAC	NAC		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
Not Applicable ; if coating is used o	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
SIP	10.20 - 16.25 - 4.5	3	Through-hole
Comment	Package: DO 220; MDF valid for STTH3012D		

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	HSDK*177R01G					
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	13.048	mg	supplier	die	Silicon (Si)	7440-21-3		12.529	mg	960224	6700
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.078	mg	5978	42
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.012	mg	920	6
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.019	mg	1456	10
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.057	mg	4368	30
die (s)				supplier	metallization	Gold (Au)	7440-57-5		0.056	mg	4292	30
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.077	mg	5901	41
die (s)				supplier	passivation	Gamma-butyrolactone	96-48-0		0.074	mg	5671	40
die (s)				supplier	passivation	Polyhydroxyamide	55295-98-2		0.033	mg	2529	18
die (s)				supplier	passivation	Alcoxy silane	proprietary		0.002	mg	153	1
die (s)				supplier	passivation	Aryl Silicic Acid	proprietary		0.001	mg	77	1
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.006	mg	460	3
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.018	mg	1380	10
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.086	mg	6591	46
Leadframe	Copper & its alloys	1175.952	mg	supplier	alloy	Copper (Cu)	7440-50-8		1173.318	mg	997760	627443
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		1.175	mg	999	628
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.352	mg	299	188
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		1.107	mg	941	592
Soft solder	Solder	8.85	mg	JIG Table A	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	8.452	mg	955028	4520
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.221	mg	24972	118
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.177	mg	20000	95
Bonding wire	Other inorganic materials	4.925	mg	supplier	wire	Aluminium (Al)	7429-90-5		4.925	mg	1000000	2634
encapsulation	Other Organic Materials	662.984	mg	supplier	mold compound	Silica, vitreous	60676-86-0		576.796	mg	870000	308447
encapsulation				supplier	mold compound	Epoxy resin	Proprietary		66.299	mg	100001	35454
encapsulation				supplier	mold compound	Phenol resin	Proprietary		16.574	mg	24999	8863
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		3.315	mg	5000	1773
connections coating	Solder	4.241	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.241	mg	1000000	2268