



## 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>	2016-08-09
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Rossana Bonaccorso	<b>Representative Title</b>	ADG MD 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/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	Standard
<b>Legal Statement</b>	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STTH1506DPI	H8UN*E20A014	A	Z45A	2016-08-09
	Amount	UoM	Unit type	ST ECOPACK Grade
	4280.00	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	15.30 - 12.8 - 4.5	2	Through-hole	
Comment	Package: DOP 3 ISOL			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	false
2 - 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
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
5 - Product(s) is obsolete, no information is available	false
6 - 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-20th June 2016				
Query				Response
1 - Product(s) 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	HSUN*E20A014					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	11.096	mg	supplier	die	Silicon (Si)	7440-21-3		10.149	mg	914654	2371
				supplier	metallization	Aluminium (Al)	7429-90-5		0.817	mg	73630	191
				supplier	Passivation	Silicon Oxide	7631-86-9		0.069	mg	6218	16
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	270	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.010	mg	902	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.048	mg	4326	11
Leadframe	Copper & its alloys	673.638	mg	supplier	frame alloy	Copper (Cu)	7440-50-8		672.762	mg	998700	157187
				supplier	frame alloy	Iron(Fe)	7439-89-6		0.674	mg	1000	157
				supplier	frame coating	Phosphorus (P)	12185-10-3		0.202	mg	300	47
Heatsink	Copper & its alloys	2381.313	mg	supplier	frame alloy	Copper (Cu)	7440-50-8		2378.216	mg	998699	555658
				supplier	frame alloy	Iron(Fe)	7439-89-6		2.382	mg	1001	557
				supplier	frame coating	Phosphorus (P)	12185-10-3		0.715	mg	300	167
Ceramic	Ceramics / Glass	19.813	mg	supplier	Ceramic	Ceramic	proprietary		19.813	mg	1000000	4629
Die attach	Other Organic Materials	74.694	mg	supplier	soft solder	Lead(Pb)	7439-92-1	7a-Lead in high me	69.839	mg	935001	16318
				supplier	soft solder	Silver(Ag)	7440-22-4		1.120	mg	14995	261
				supplier	soft solder	Tin(Sn)	7440-31-5		3.735	mg	50004	873
Bonding wire	Aluminum & its alloys	21.794	mg	supplier	Bonding wire	Aluminium (Al)	7429-90-5		21.794	mg	1000000	5092
Encapsulation	Other Organic materials	1069.894	mg	supplier	Molding Compound	Silica, vitreous	60676-86-0		813.119	mg	760000	189981
				supplier	Molding Compound	Phenol resin	9003-35-4		64.194	mg	60000	14999
				supplier	Molding Compound	Carbon black	1333-86-4		8.559	mg	8000	2000
				supplier	Molding Compound	Epoxy Cresol Novolak	29690-82-2		109.129	mg	102000	25497
				supplier	Molding Compound	Metal hydroxide	21645-51-2		21.398	mg	20000	5000
				supplier	Molding Compound	Others	Proprietary		53.495	mg	50000	12499
Finishing	Other inorganic materials	27.758	mg	supplier	Connection coating	Tin(Sn)	7440-31-5		27.758	mg	1000000	6486