



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 *	2017-05-24
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giuseppe Vitali Palma	Representative Title	ADG MD 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/web/en/support/support.html		

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
STPS2045CG-TR	HWD2*F55S02Y	A	994X	2017-05-24
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	mg	Each	ECOPACK2	

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	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-9.15-4.5	2	gull wing	
Comment	D2PAK			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
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
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

Query : California Prop65 list, dated 27th January 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.98	Die Back side metal - Leadframe metal	711
Lead	6.11	Soft solder	4428

QueryList : REACH-12th January 2017				
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HWD2*F55S02Y									
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	7.171	mg	supplier	die	Silicon (Si)	7440-21-3		6.775	mg	944778	4909				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.280	mg	39046	203				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	836	4				
				supplier	metallization	Tungsten (W)	7440-33-7		0.010	mg	1395	7				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.041	mg	5717	30				
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	418	2				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.010	mg	1395	7				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.046	mg	6415	33				
				Leadframe	Copper & its alloys	779.485	mg	supplier	alloy	Copper (Cu)	7440-50-8		777.537	mg	997502	563433
								supplier	alloy	Iron (Fe)	7439-89-6		0.358	mg	459	259
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.655	mg	839	474				
supplier	metallization	Nickel (Ni)	7440-02-0						0.935	mg	1200	678				
Soft solder	Solder	6.398	mg					JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	6.110	mg	954986	4428
				supplier	solder	Silver (Ag)	7440-22-4		0.160	mg	25008	116				
				supplier	solder	Tin (Sn)	7440-31-5		0.128	mg	20006	93				
Bonding wire	Other inorganic materials	5.144	mg	supplier	wire	Aluminium (Al)	7429-90-5		5.144	mg	1000000	3728				
Encapsulation	Other Organic Materials	579.313	mg	supplier	mold compound	Silica, vitreous	60676-86-0		519.934	mg	897501	376764				
				supplier	mold compound	Epoxy resin	25068-38-6		40.552	mg	70000	29386				
				supplier	mold compound	Phenol resin	29690-82-2		17.379	mg	29999	12593				
				supplier	mold compound	carbon black	1333-86-4		1.448	mg	2500	1049				
Connections coating	Solder	2.489	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1804				