



## 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>	2018-06-18
<b>Contact Name *</b>	Refer to Supplier Comment section		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>	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>		

**Uncertainty Statement**


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

**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
STPS1045SF	HA7R*ZC2S85S	A	Z6IA	2018-06-18
	Amount	UoM	Unit type	ST ECOPACK Grade
	90.8	mg	Each	ECOPACK® 2
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant ( in each organic material)		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFF	6.5 - 4.6 - 1.1	3	flat	
Comment	Package: PSMC-3L-EP			

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)

QueryList : ELV directive : 2000/53/EC amended 2016/774 _May 2016	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 15th December 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	0.02	Die	253
Lead	0.07	Soft solder	760

QueryList : REACH-15th January 2018				
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	HA7R*2C25855					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	1.612	mg	supplier	die	Silicon (Si)	7440-21-3		1.460	mg	905595	16079
				supplier	metallization	Aluminium (Al)	7429-90-5		0.085	mg	52723	936
				supplier	passivation	Nickel (Ni)	7440-02-0		0.009	mg	5582	99
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	1241	22
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	1861	33
				supplier	Passivation	Silicon Oxide	7631-86-9		0.012	mg	7443	132
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	620	11
				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	1861	33
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.014	mg	8684	152
				supplier	polymer die coating	Durimide	Proprietary		0.023	mg	14390	256
Lead frame	Copper & its alloys	37.486	mg	Supplier	alloy	Copper (Cu)	7440-50-8		36.380	mg	970496	400661
				Supplier	alloy	Phosphorus (P)	7723-14-0		0.056	mg	1493	617
				Supplier	alloy	Iron (Fe)	7439-89-6		0.975	mg	26010	10738
				Supplier	alloy	Zinc(Zn)	7440-66-6		0.075	mg	2001	826
				Supplier	solder	Tin (Sn)	7440-31-5		0.004	mg	48780	44
Soft solder	Solder	0.082	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	0.069	mg	841463	760
				Supplier	solder	Silver (Ag)	7440-22-4		0.002	mg	24390	22
				Supplier	solder	Polyglycol ether	9038-95-3		0.007	mg	85367	77
				Supplier	clips	Copper (Cu)	7440-50-8		8.738	mg	970458	96233
Clips	Copper & its alloys	9.004	mg	Supplier	clips	Phosphorus (P)	7723-14-0		0.014	mg	1555	154
				Supplier	clips	Iron (Fe)	7439-89-6		0.234	mg	25988	2577
				Supplier	clips	Zinc(Zn)	7440-66-6		0.018	mg	1999	198
				Supplier	mold compound	Amourphous Silica	60676-86-0		32.763	mg	800015	360826
Encapsulation	Other Organic Materials	40.953	mg	Supplier	mold compound	Solid Epoxy Resin 1	223769-10-6		2.252	mg	54990	24802
				Supplier	mold compound	Solid Epoxy Resin 2	85954-11-6		3.481	mg	85000	38337
				Supplier	mold compound	Phenol Resin	205830-20-2		1.433	mg	34991	15782
				Supplier	mold compound	Carbon Black	60676-86-0		0.205	mg	5005	2258
				Supplier	mold compound	Crystalline Silica	14808-60-7		0.819	mg	19999	9020
				Supplier	solder alloy	Tin (Sn)	7440-31-5		1.663	mg	1000000	18315
Connection coating	Other inorganic materials	1.663	mg	Supplier	solder alloy	Tin (Sn)	7440-31-5		1.663	mg	1000000	18315