



## 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
STPS10M120SF	HA7R*Z40P85Z	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	0.05	Die	507
Lead	0.07	Soft solder	749

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*Z40P85Z					
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	3.217	mg	supplier	die	Silicon (Si)	7440-21-3		2.913	mg	905418	32081
				supplier	metallization	Aluminium (Al)	7429-90-5		0.169	mg	52529	1861
				supplier	passivation	Nickel (Ni)	7440-02-0		0.018	mg	5595	198
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	1243	44
				supplier	metallization	Tungsten (W)	7440-33-7		0.006	mg	1864	64
				supplier	Passivation	Silicon Oxide	7631-86-9		0.025	mg	7770	275
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	622	22
				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	1865	66
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.028	mg	8703	308
				supplier	polymer die coating	Durimide	Proprietary		0.046	mg	14391	510
Lead frame	Copper & its alloys	36.812	mg	Supplier	alloy	Copper (Cu)	7440-50-8		35.726	mg	970499	393458
				Supplier	alloy	Phosphorus (P)	7723-14-0		0.055	mg	1494	606
				Supplier	alloy	Iron (Fe)	7439-89-6		0.957	mg	25997	10540
				Supplier	alloy	Zinc(Zn)	7440-66-6		0.074	mg	2010	815
				Supplier	solder	Tin (Sn)	7440-31-5		0.004	mg	49383	44
Soft solder	Solder	0.081	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	0.068	mg	839506	749
				Supplier	solder	Silver (Ag)	7440-22-4		0.002	mg	24691	22
				Supplier	solder	Polyglycol ether	9038-95-3		0.007	mg	86420	77
Clips	Copper & its alloys	8.841	mg	Supplier	clips	Copper (Cu)	7440-50-8		8.580	mg	970478	94493
				Supplier	clips	Phosphorus (P)	7723-14-0		0.013	mg	1470	143
				Supplier	clips	Iron (Fe)	7439-89-6		0.230	mg	26016	2533
				Supplier	clips	Zinc(Zn)	7440-66-6		0.018	mg	2036	198
Encapsulation	Other Organic Materials	40.215	mg	Supplier	mold compound	Amourphous Silica	60676-86-0		32.172	mg	800000	354317
				Supplier	mold compound	Solid Epoxy Resin 1	223769-10-6		2.212	mg	55004	24361
				Supplier	mold compound	Solid Epoxy Resin 2	85954-11-6		3.418	mg	84993	37643
				Supplier	mold compound	Phenol Resin	205830-20-2		1.408	mg	35012	15507
				Supplier	mold compound	Carbon Black	60676-86-0		0.201	mg	4998	2214
				Supplier	mold compound	Crystalline Silica	14808-60-7		0.804	mg	19993	8855
Connection coating	Other inorganic materials	1.634	mg	Supplier	solder alloy	Tin (Sn)	7440-31-5		1.634	mg	1000000	17996