



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 *	2018-06-18
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	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

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
STPS1230SF	HA7R*ZA3Q85Q	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	0.03	Die	363
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*ZA3Q85Q					
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	2.315	mg	supplier	die	Silicon (Si)	7440-21-3		2.097	mg	905714	23095
				supplier	metallization	Aluminium (Al)	7429-90-5		0.122	mg	52693	1344
				supplier	passivation	Nickel (Ni)	7440-02-0		0.013	mg	5615	143
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	1296	33
				supplier	metallization	Tungsten (W)	7440-33-7		0.004	mg	1727	44
				supplier	Passivation	Silicon Oxide	7631-86-9		0.018	mg	7774	192
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	432	11
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1728	44
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.020	mg	8638	220
				supplier	polymer die coating	Durimide	Proprietary		0.033	mg	14383	367
Lead frame	Copper & its alloys	37.190	mg	Supplier	alloy	Copper (Cu)	7440-50-8		36.093	mg	970503	397500
				Supplier	alloy	Phosphorus (P)	7723-14-0		0.056	mg	1505	617
				Supplier	alloy	Iron (Fe)	7439-89-6		0.967	mg	26002	10650
				Supplier	alloy	Zinc(Zn)	7440-66-6		0.074	mg	1990	815
				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	24391	22
				Supplier	solder	Polyglycol ether	9038-95-3		0.007	mg	85366	77
Clips	Copper & its alloys	8.932	mg	Supplier	clips	Copper (Cu)	7440-50-8		8.669	mg	970555	95474
				Supplier	clips	Phosphorus (P)	7723-14-0		0.013	mg	1456	143
				Supplier	clips	Iron (Fe)	7439-89-6		0.232	mg	25974	2555
				Supplier	clips	Zinc(Zn)	7440-66-6		0.018	mg	2015	198
Encapsulation	Other Organic Materials	40.631	mg	Supplier	mold compound	Amourphous Silica	60676-86-0		32.504	mg	799980	357974
				Supplier	mold compound	Solid Epoxy Resin 1	223769-10-6		2.235	mg	55007	24615
				Supplier	mold compound	Solid Epoxy Resin 2	85954-11-6		3.454	mg	85009	38040
				Supplier	mold compound	Phenol Resin	205830-20-2		1.422	mg	34998	15661
				Supplier	mold compound	Carbon Black	60676-86-0		0.203	mg	4997	2236
				Supplier	mold compound	Crystalline Silica	14808-60-7		0.813	mg	20009	8954
Connection coating	Other inorganic materials	1.650	mg	Supplier	solder alloy	Tin (Sn)	7440-31-5		1.650	mg	1000000	18172