



## Materials Declaration Form

<b>IPC</b>	1752	<b>Version</b>	2
<b>Form Type *</b>	Distribute		
<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>	2018-01-26
<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
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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
STPSC20H12CWL	H8PN*15HC1T7	A	Z45A	2018-01-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	6100	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	15.77 - 20.83 - 4.9	3	Through-hole	
Comment	Package: TO247 LONG LEADS			

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	TRUE
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)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

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	0.10	Die	16

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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	H8PN*15HC1T7					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	7.451	mg	supplier	die	Silicium carbide	409-21-2		7.120	mg	955576	1167
				supplier	metallization	Aluminium (Al)	7429-90-5		0.066	mg	8858	11
				supplier	metallization	Gold (Au)	7440-57-5		0.010	mg	1342	2
				supplier	passivation	Nickel (Ni)	7440-02-0		0.052	mg	6979	9
				supplier	metallization	Silver (Ag)	7440-22-4		0.112	mg	15032	18
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	537	1
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	403	0
				supplier	back side metallization	Gold (Au)	7440-57-5		0.010	mg	1342	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.045	mg	6039	7
				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.029	mg	3892	5
Leadframe	Copper & its alloys	3555.395	mg	supplier	alloy	Copper (Cu)	7440-50-8		3548.641	mg	998100	581744
				supplier	alloy	Iron (Fe)	7439-89-6		5.333	mg	1500	874
				supplier	alloy	Phosphorus (P)	12185-10-3		1.421	mg	400	233
Soft solder	Other Organic Materials	49.054	mg	supplier	solder	Tin (Sn)	7440-31-5		31.884	mg	649978	5227
				supplier	solder	Silver (Ag)	7440-22-4		12.264	mg	250010	2010
				supplier	solder	Antimony (Sb)	7440-36-0		4.906	mg	100012	804
Bonding wire	Other inorganic materials	39.331	mg	supplier	wire	Aluminium (Al)	7429-90-5		39.331	mg	1000000	6448
Encapsulation	Other Organic materials	2421.279	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1895.862	mg	783000	310797
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		363.191	mg	150000	59540
				supplier	mold compound	Phenol resin	9003-35-4		121.063	mg	50000	19846
				supplier	mold compound	Triphenylphosphine	603-35-0		19.369	mg	7999	3175
				supplier	mold compound	Bismuth compound	Proprietary		12.107	mg	5000	1985
Connections coating	Solder	27.490	mg	supplier	mold compound	Carbon Black	1333-86-4		9.687	mg	4001	1588
				supplier	solder alloy	Tin (Sn)	7440-31-5		27.490	mg	1000000	4507