



## 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>	2018-12-10
<b>Company Unique ID</b>	NL 008751171801		
<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
STTH3025	HNZK*D81F814	A	9941	2018-12-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	250	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	
SOJ	4.5 - 2.16 - 3.68	2	J bend	
Comment	Package: SMC CLIP (SOD 15 NEW)			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 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 2017/2096 _November 2017	
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 29th 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	120
Lead	3.94	Soft solder	15744

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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	3.94	Soft solder	15744
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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	3.94	Soft solder	925029

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HNZK*D81F814					
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	2.744	mg	supplier	die	Silicon (Si)	7440-21-3		2.610	mg	951097	10440
				supplier	metallization	Aluminium (Al)	7429-90-5		0.016	mg	5830	64
				supplier	metallization	Gold (Au)	7440-57-5		0.012	mg	4373	48
				supplier	passivation	Nickel (Ni)	7440-02-0		0.012	mg	4373	48
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	729	8
				supplier	metallization	Tungsten (W)	7440-33-7		0.004	mg	1458	16
				supplier	Passivation	Silicon Oxide	7631-86-9		0.016	mg	5830	64
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	364	4
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1458	16
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.018	mg	6559	72
Leadframe & Clip	M-004 Copper and its alloys	89.371	mg	supplier	polymer die coating	Probindide	Proprietary		0.049	mg	17929	197
				supplier	alloy	Copper (Cu)	7440-50-8		89.328	mg	999519	357312
				supplier	alloy	Iron (Fe)	7439-89-6		0.009	mg	100	36
				supplier	alloy	Phosphorus metal	7723-14-0		0.030	mg	336	120
				supplier	alloy	Zinc (Zn)	7440-66-6		0.004	mg	45	16
Soft solder	Solder	4.255	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	3.936	mg	925029	15744
				supplier	solder	Tin (Sn)	7440-31-5		0.213	mg	50059	852
				supplier	solder	Silver (Ag)	7440-22-4		0.106	mg	24912	424
Encapsulation	M-011 Other inorganic materials	151.502	mg	supplier	mold compound	Amorphous Silica	7631-86-9		93.022	mg	613998	372088
				supplier	mold compound	Quartz	14808-60-7		30.301	mg	200004	121204
				supplier	mold compound	epoxy resin	25068-38-6		18.180	mg	119998	72720
				supplier	mold compound	phenolic resin	29690-82-2		9.090	mg	60000	36360
				supplier	mold compound	Carbon black	1333-86-4		0.909	mg	6000	3635
Connections coating	Solder	2.128	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.128	mg	1000000	8512