



## 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  <i>* : Required Field</i>

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2017-11-06
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giuseppe Vitali Palma	<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**


While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

<b>Legal Statement</b>			
<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
	R1DZ*OD0HT82	A	3068	2017-11-06
Amount	UoM	Unit type	ST ECOPACK Grade	
1900.00	mg	Each	ECOPACK2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10-9.1-4.5	3	THROUGH HOLE	
Comment	Package: TO 220 AB NON ISOL; MD valid for STP15810, STP150N10F7			

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)

Query : California Prop65 list, dated 27th January 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	0.56	Die back side metal - Leadframe metal	296
Lead	10.91	Soft solder	5741

QueryList : REACH-12th January 2017				
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	R1DZ*OD0HT82					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	9.268	mg	supplier	die	Silicon (Si)	7440-21-3		8.882	mg	958351	4675
				supplier	metallization	Aluminium (Al)	7429-90-5		0.116	mg	12516	61
				supplier	metallization	Titanium (Ti)	7440-32-6		0.023	mg	2482	12
				supplier	Passivation	Silicon Oxide	7631-86-9		0.132	mg	14243	69
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.006	mg	647	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.073	mg	7877	38
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.006	mg	647	3
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.030	mg	3237	16
				Leadframe	Copper & its alloys	1253.534	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						1.253	mg	1000	659
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.376	mg	300	198
supplier	metallization	Nickel (Ni)	7440-02-0						0.490	mg	391	258
supplier	metallization	Phosphorus (P)	12185-10-3						0.040	mg	32	21
Soft solder	Solder	11.421	mg					JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met
				supplier	solder	Silver (Ag)	7440-22-4		0.286	mg	25042	151
				supplier	solder	Tin (Sn)	7440-31-5		0.228	mg	19963	120
				supplier	wire	Aluminium (Al)	7429-90-5		0.146	mg	993197	77
Bonding wires	Other inorganic materials	0.147	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	6803	1
				supplier	Ribbon	Aluminium (Al)	7429-90-5		4.041	mg	1000000	2127
Encapsulation	Other Organic Materials	615.227	mg	supplier	mold compound	Silica, vitreous	60676-86-0		535.247	mg	869999	281709
				supplier	mold compound	Epoxy resin	25068-38-6		61.523	mg	100000	32381
				supplier	mold compound	Phenol resin	29690-82-2		15.381	mg	25001	8095
				supplier	mold compound	Carbon Black	1333-86-4		3.076	mg	5000	1619
Connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348