



## 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>	2019-03-15
<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
STP75NS04Z	TLDZ*BM4FB6F	A	998G	2019-03-15
Amount	UoM	Unit type	ST ECOPACK Grade	
1900.00	mg	Each	ECOPACK2	
	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	
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
SIP	10-9.1-4.5	3	THROUGH HOLE
Comment	TO 220 AB NON ISOL		

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 23rd November 2018			
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	5.97	Die - Leadframe	3142
Lead	6.74	Soft solder	3545

QueryList : REACH-15th January 2019				
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	6.74	Soft solder	3545
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	6.74	Soft solder	955048

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TLDZ*BM4FB6F					
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	7.674	mg	supplier	die	Silicon (Si)	7440-21-3		7.507	mg	978238	3951
				supplier	metallization	Aluminium (Al)	7429-90-5		0.070	mg	9122	37
				supplier	Passivation	Silicon Oxide	7631-86-9		0.031	mg	4040	16
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	521	2
				supplier	back side metallization	Gold (Au)	7440-57-5		0.011	mg	1433	6
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.051	mg	6646	27
Leadframe	M-004 Copper and its alloys	1258.924	mg	supplier	alloy	Copper (Cu)	7440-50-8		1251.376	mg	994004	658619
				supplier	alloy	Iron (Fe)	7439-89-6		1.253	mg	995	659
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.376	mg	299	198
				supplier	metallization	Nickel (Ni)	7440-02-0		5.919	mg	4702	3115
				supplier	JIG - R	solder	7439-92-1	7a-Lead in high met	6.735	mg	955048	3545
Soft solder	Solder	7.052	mg	supplier	solder	Lead (Pb)	7440-22-4		0.176	mg	24957	93
				supplier	solder	Tin (Sn)	7440-31-5		0.141	mg	19995	75
				supplier	wire	Aluminium (Al)	7429-90-5		4.412	mg	1000000	2322
Bonding wires	M-011 Other inorganic materials	4.412	mg	supplier	wire	Aluminium (Al)	7429-90-5		4.412	mg	1000000	2322
				supplier	mold compound	Silica, vitreous	60676-86-0		535.551	mg	870000	281869
				supplier	mold compound	Epoxy resin	25068-38-6		61.558	mg	100001	32399
				supplier	mold compound	Phenol resin	29690-82-2		15.389	mg	24999	8099
Encapsulation	M-011 Other inorganic materials	615.576	mg	supplier	mold compound	Carbon Black	1333-86-4		3.078	mg	5000	1620
				supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348
Connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348