



## 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>	2020-01-09
<b>Company Unique ID</b>	NL 008751171B01		
<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>	Floriana SAN BIAGIO	<b>Representative Title</b>	AMS 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
	B9L7*L093BA6	A	MU1A	2020-01-09
Amount	UoM	Unit type	ST ECOPACK Grade	
1380	mg	Each	ECOPACK® 1	
Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
Not Applicable	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	0	

Package Designator	Size	Nbr of instances	Shape	
DIP	24.38 x 6.35	20	pin	
Comment	L7 PDIP 20 .3 CU .4; MDF is valid for L293E			

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 13th September 2019			
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	0.05	die metalisation	36
Lead	4.08	soft solder	2957
Antimony trioxide	4.05	molding compound	2935

QueryList : Chinese RoHS , references : SJT 11364 – 2014 and GBT 26572 – 2014				
Query				Response
1 - Product(s) requires marking for the presence of restricted substances and must be marked with an Environmental Protection Use Period under China's Measures for Administration of the control of pollution by Electronic Information Products				FALSE
2 - Product(s) is eligible for marking with the e code under China's Measures for Administration of the control of pollution by Electronic Information Products				FALSE
Hasardous substance				
Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Hexavalent Chromium (Cr VI)	PBB & PBDE
X if above 1000ppm in any Homogeneous Material	O	O	O	O

QueryList : REACH-16th July 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	4.08	Soft solder	2957
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	4.08	Soft solder	974916

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update				
Query				Response
The Product does contain at least one of the substances listed in Chemical Control Act				YES
Substance	Homogeneous Material impacted	Content in Homogeneous Material (mg)	Concentration in the material(%)	Application Purpose
Bromine	Encapsulation	19.827	1.47%	

Material Composition Declaration :						Mfr Item Name	B9L7*L093BA6				5999999.0	999999.0
note : Substance present with less 0.001mg will not be declared in this document												
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	7.419	mg	supplier	die	Silicon(Si)	7440-21-3		7.184	mg	968325	5206
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.091	mg	12266	66
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.006	mg	809	4
				supplier	metallisation	Gold(Au)	7440-57-5		0.015	mg	2022	11
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.050	mg	6739	36
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.031	mg	4178	22
				supplier	passivation	Silicon oxide	7631-86-9		0.042	mg	5661	30
				supplier	alloy & coating	Silver (Ag)	7440-22-4		2.326	mg	1000000	1686
Soft solder	Solder	4.186	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting tempe	4.081	mg	974916	2957
				supplier	solder	Silver(Ag)	7440-22-4		0.063	mg	15050	46
				supplier	solder	Tin(Sn)	7440-31-5		0.042	mg	10033	30
Bonding wires	M-008 Precious metals	0.780	mg	supplier	wire	Gold(Au)	7440-57-5		0.780	mg	1000000	565
Encapsulation	M-015 Other organic materials	1348.755	mg	supplier	mold compound	Silica vitreous	60676-86-0		971.103	mg	720000	703698
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		182.082	mg	135000	131943
				supplier	mold compound	Phenol resin	9003-35-4		74.182	mg	55000	53755
				supplier	mold compound	Tetrabromobisphenol	79-94-7		33.719	mg	25000	24434
				supplier	mold compound	Acrylic resin	9003-01-4		26.975	mg	20000	19547
				supplier	mold compound	Antimony pentoxide	1314-60-9		16.185	mg	12000	11728
				supplier	mold compound	Antimony trioxide	1309-64-4		4.046	mg	3000	2932
				supplier	mold compound	Mixed siloxanes	proprietary		20.231	mg	15000	14660
				supplier	mold compound	Silica Cristobalite	14464-46-1		6.744	mg	5000	4887
				supplier	mold compound	Quartz	14808-60-7		6.744	mg	5000	4887
connections coating	Solder	16.535	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		16.535	mg	1000000	11982