



## 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>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-09-12
<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
	V3)K*L7651A6	A	SH1A	2018-09-12
Amount	UoM	Unit type	ST ECOPACK Grade	
1356	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
Not Applicable	Not Applicable	Not Applicable		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	10.2.x9.15x4.5	4	Through-hole	
Comment	)K TO220 - SINGLE GAUGE; MDF valid for L78M05ABV			

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)

QueryList : REACH-27th June 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 (Pb)	1000ppm	2.91	solder	2145

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	V3JK*L7651A6			6000000.0	1000000.0	
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	1.930	mg	supplier	die	Silicon (Si)	7440-21-3		1.867	mg	967358	1377
				supplier	metallization	Aluminium (Al)	7429-90-5		0.024	mg	12435	18
				supplier	Passivation	Silicon Nitride	12033-89-5		0.008	mg	4145	6
				supplier	Passivation	Silicon Oxide	7631-86-9		0.011	mg	5699	8
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	1036	1
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.013	mg	6736	10
Leadframe	M-004 Copper and its alloys	761.584	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.005	mg	2591	4
				supplier	alloy	Copper (Cu)	7440-50-8		760.594	mg	998700	560910
				supplier	alloy	Iron (Fe)	7439-89-6		0.350	mg	460	258
Soft solder	Solder	3.046	mg	supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.640	mg	840	472
				JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	2.909	mg	955023	2145
				supplier	solder	Silver (Ag)	7440-22-4		0.076	mg	24951	56
Bonding wires	M-004 Copper and its alloys	0.312	mg	supplier	solder	Tin (Sn)	7440-31-5		0.061	mg	20026	45
				supplier	wire	Copper (Cu)	7440-50-8		0.234	mg	1000000	173
Encapsulation	M-015 Other organic materials	580.724	mg	supplier	mold compound	Silica, vitreous	60676-86-0		505.230	mg	870000	372588
				supplier	mold compound	Epoxy resin	29690-82-2		58.072	mg	99999	42826
				supplier	mold compound	Phenol resin	25068-38-6		14.518	mg	25000	10706
connections coating	Solder	8.482	mg	supplier	mold compound	Carbon Black	1333-86-4		2.904	mg	5001	2142
				supplier	solder alloy	Tin (Sn)	7440-31-5		8.482	mg	1000000	6255