



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D * : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-11-16
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Antonella Lanzafame	Representative Title	AMS MD Champion
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement


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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	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
L78M24CV	V3)K*L968AA6	A	SHENZHEN B/E	2018-11-16
Amount	UoM	Unit type	ST ECOPACK Grade	
1356.00	mg	Each	ECOPACK2	

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

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-9.15-4.5	4	THROUGH HOLE	
Comment	TO220 - SINGLE GAUGE			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	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 Jun 2018				
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						Mfr Item Name	V3JK*1968AA6						
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	0.436	mg	supplier	die	Silicon (Si)	7440-21-3		0.379	mg	869266	279	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.022	mg	50459	16	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.008	mg	18349	6	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.010	mg	22936	7	
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	2294	1	
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	9174	3	
Leadframe	Copper & its alloys	764.200	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.012	mg	27523	9	
				supplier	alloy	Copper (Cu)	7440-50-8		763.206	mg	998699	562836	
				supplier	alloy	Iron (Fe)	7439-89-6		0.352	mg	461	260	
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.642	mg	840	473	
Soft solder	Solder	1.667	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	1.592	mg	955009	1174	
				supplier	solder	Silver (Ag)	7440-22-4		0.042	mg	25195	31	
				supplier	solder	Tin (Sn)	7440-31-5		0.033	mg	19796	24	
				supplier	wire	Copper (Cu)	7440-50-8		0.234	mg	1000000	173	
Encapsulation	Other Organic Materials	580.981	mg	supplier	mold compound	Silica, vitreous	60676-86-0		505.453	mg	869999	372753	
				supplier	mold compound	Epoxy resin	25068-38-6		58.098	mg	100000	42845	
				supplier	mold compound	Phenol resin	29690-82-2		14.525	mg	25001	10712	
				supplier	mold compound	Carbon Black	1333-86-4		2.905	mg	5000	2142	
Connections coating	Solder	8.482	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		8.482	mg	1000000	6255	