Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	**Response Date ***	2016-02-23
Contact Name *	Refer to " Supplier Comment" section	**Contact Title**	Refer to " Supplier Comment" section
Contact Phone *	Refer to " Supplier Comment" section	**Contact Email ***	Refer to " Supplier Comment" section
Authorized Representative *	Emilio Castelli	**Representative Title**	APG 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/online_tech_support.html		

Uncertainty Statement

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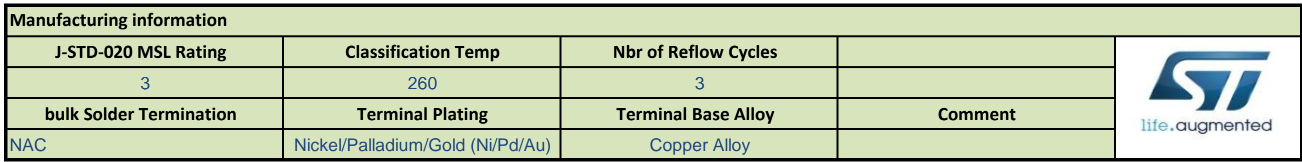
Legal Statement

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 omprehensive 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**
L4988DTR	SMKU*UH71AA6	A	SH1A	2016-02-23
	Amount	**UoM**	**Unit type**	**ST ECOPACK Grade**
	80.00	mg	Each	ECOPACK® 1



Manufacturing information				
J-STD-020 MSL Rating	**Classification Temp**	**Nbr of Reflow Cycles**		
3	260	3		
bulk Solder Termination	**Terminal Plating**	**Terminal Base Alloy**	**Comment**	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	4.9x3.9x1.52	8	flat	
Comment				

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	**Response**
Product(s) meets EU RoHS requirement without any exemptions	**true**
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false

Exemption Id.	**Description**

QueryList : REACH-17th Dec 2015	
Query	**Response**
The product 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**	**SMKU*UH71AA6**					
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	3.121	mg	supplier	die	Silicon (Si)	7440-21-3		2.986	mg	956745	37325
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.022	mg	7049	275
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	961	38
Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.005	mg	1602	63
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.060	mg	19225	750
Die				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	641	25
Die				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	1602	63
Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.015	mg	4806	188
Die				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.023	mg	7369	288
Leadframe	Copper & its alloys	16.762	mg	supplier	alloy	Copper (Cu)	7440-50-8		16.325	mg	973929	204063
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.384	mg	22909	4800
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.023	mg	1372	288
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.020	mg	1193	250
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.010	mg	597	125
Die attach		1.016	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.924	mg	909449	11550
Die attach				#N/A	glue or tape	acrylate	Proprietary		0.051	mg	50197	638
Die attach				#N/A	glue or tape	Methacrylate	Proprietary		0.041	mg	40354	513
Bonding wire		0.107		supplier	wire	Gold (Au)	7440-57-5		0.106	mg	990654	1325
Bonding wire				supplier	wire	Copper (Cu)	7440-50-8		0.001	mg	9346	13
encapsulation		58.966	mg	#N/A	mold compound	Epoxy Resin	Proprietary		4.315	mg	73178	53938
encapsulation				#N/A	mold compound	Phenol Resin	Proprietary		4.315	mg	73178	53938
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		49.819	mg	844877	622738
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.287	mg	4867	3588
encapsulation				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.230	mg	3901	2875