



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-05-24
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	Representative Title	ADG 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
STB11NM60T4	TLD2*MD65B6V	A	994X	2018-05-24
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	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
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2 - 9.15 - 4.5	2	gull wing	
Comment	D2PAK			

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 : California Prop65 list, dated 15th December 2017			
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	0.09	Die	62
Lead	11.23	Soft solder	8134

QueryList : REACH-15th January 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
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				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TLD2*MD6586V				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	17.329	mg	supplier	die	Silicon (Si)	7440-21-3		16.811	mg	970108	12182
				supplier	metallization	Aluminium (Al)	7429-90-5		0.249	mg	14369	180
				supplier	Passivation	Silicon Nitride	12033-89-5		0.059	mg	3405	43
				supplier	Passivation	Silicon Oxide	7631-86-9		0.088	mg	5078	64
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.006	mg	346	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.086	mg	4963	62
Leadframe	M-004 Copper and its alloys	778.549	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.030	mg	1731	22
				supplier	alloy	Copper (Cu)	7440-50-8		777.536	mg	998699	563432
				supplier	alloy	Iron (Fe)	7439-89-6		0.779	mg	1000	564
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.234	mg	301	170
Soft solder	Solder	11.754	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	11.225	mg	954994	8134
				supplier	solder	Silver (Ag)	7440-22-4		0.294	mg	25013	213
				supplier	solder	Tin (Sn)	7440-31-5		0.235	mg	19993	170
Bonding wires	M-003 Aluminum and its alloys	1.608	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.608	mg	1000000	1165
Encapsulation	M-011 Other inorganic materials	568.271	mg	supplier	mold compound	Fused Silica	60676-86-0		485.871	mg	854999	352080
				supplier	mold compound	Phenol resin Novolak	26834-02-6		28.414	mg	50001	20590
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		28.414	mg	50001	20590
				supplier	mold compound	Poly Phenyl Glycidyl Ether co-Dicyclopentadiene	119345-05-0		19.890	mg	35001	14413
				supplier	mold compound	Benzaldehyde hydroxy polymer	106466-55-1		2.841	mg	4999	2059
				supplier	mold compound	Carbon black	1333-86-4		2.841	mg	4999	2059
connections coating	Solder	2.489	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1804