



## 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>	2020-01-07
<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
	AYWY*A245CC6	A	9992-ZS1A	2020-01-07
	Amount	UoM	Unit type	ST ECOPACK Grade
	16.38	mg	Each	ECOPACK® 3
Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	0	



Package Designator	Size	Nbr of instances	Shape	
SOT	2.9x1.6	5	gull wing	
Comment	WY SOT 23-5; MDF is valid for TSB571ILT			

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	TRUE
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)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

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	0.01	Leadframe metalization	549

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				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 :						Mfr Item Name	AYWY*A245CC6				5000001.0	1000305.0
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	0.869	mg	supplier	die	Silicon(Si)	7440-21-3		0.795	mg	914845	48535
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.012	mg	13809	733
				supplier	metallisation	Copper(Cu)	7440-50-8		0.061	mg	70196	3724
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	1151	61
Leadframe	M-004 Copper and its alloys	7.339	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		7.053	mg	961030	430586
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		0.009	mg	1226	549
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.175	mg	23845	10684
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.002	mg	273	122
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.009	mg	1226	549
				supplier	alloy & coating	Palladium(Pd)	7440-05-3		0.084	mg	11446	5128
				supplier	alloy & coating	Gold(Au)	7440-57-5		0.007	mg	954	427
Die attach	M-015 Other organic materials	0.071	mg	supplier	glue	Silver (Ag)	7440-22-4		0.001	mg	14085	61
				supplier	glue	Carbocyclic Acrylates	proprietary		0.057	mg	802817	3480
				supplier	glue	Bismaleimide resin	35325-39-4		0.007	mg	98592	427
				supplier	glue	2-preponoic acid, 2-methy	68586-19-6		0.002	mg	28169	122
				supplier	glue	Additive	Proprietary		0.002	mg	28169	122
				supplier	glue	Dicumlyl peroxide	80-43-3		0.002	mg	28169	122
Bonding wires	M-008 Precious metals	0.153	mg	supplier	wire	Gold (Au)	7440-57-5		0.153	mg	1000000	9341
Encapsulation	M-015 Other organic materials	7.953	mg	supplier	mold compound	Epoxy Resin-1	Proprietary		0.159	mg	19992	9707
				supplier	mold compound	Epoxy Resin-2	Proprietary		0.159	mg	19992	9707
				supplier	mold compound	Epoxy Resin-3	Proprietary		0.159	mg	19992	9707
				supplier	mold compound	Phenol resin	Proprietary		0.318	mg	39985	19414
				supplier	mold compound	Silica	60676-86-0		6.903	mg	867974	421429
				supplier	mold compound	Carbon Black	1333-86-4		0.016	mg	2012	977
				supplier	mold compound	Others	Proprietary		0.239	mg	30052	14591