



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 *	2020-01-16
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 *	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
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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
TSB711AILT	AYWY*A254AA6	A	ZS1A	2020-01-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	16	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		 life.augmented
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 23-5	2.90.951.6	0	#N/A	
Comment	SOT 23-5			

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	0.08	alloy	4882

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	AYWY*A254AA6				5000001.0	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 or dies	M-011 Other inorganic materials	0.808	mg	supplier	die	Silicon(Si)	7440-21-3		0.808	mg	1000000	50500
Lead frame	Copper and its alloy	6.811	mg	supplier	Alloy	Copper	7440-50-8		6.561	mg	963333	410049
Lead frame				supplier	Alloy	Iron	7439-89-6		0.154	mg	22558	9602
Lead frame				supplier	Alloy	Phosphorus	7723-14-0		0.002	mg	240	102
Lead frame				supplier	Alloy	Zinc	7440-66-6		0.009	mg	1250	532
Lead frame				supplier	Alloy	Nickel	7440-02-0		0.078	mg	11470	4882
Lead frame				supplier	Alloy	Palladium	7440-05-3		0.007	mg	1000	426
Lead frame				supplier	Alloy	Gold	7440-57-5		0.001	mg	150	64
Die attach	Other organic materials	0.036	mg	supplier	Glue	Aluminium oxide	1344-28-1		0.013	mg	350000	783
Die attach				supplier	Glue	Ethyl acetate	112-15-2		0.009	mg	250000	559
Die attach				supplier	Glue	Epoxy Resin	Proprietary		0.009	mg	250000	559
Die attach				supplier	Glue	Epichlorohyd.-bisphenol A resin	25068-38-6		0.003	mg	70000	157
Die attach				supplier	Glue	Aromatic polyamine	Proprietary		0.003	mg	70000	157
Die attach				supplier	Glue	Aminopropyltriethoxysilane	919-30-2		0.000	mg	10000	22
Bonding wire	Other inorganic materials	0.158	mg	supplier	Bonding wire	Au	7440-50-8		0.158	mg	1000000	9875
Encapsulation	Other organic materials	8.188	mg	supplier	Molding compound	Solid Epoxy Resin-1 (0.1-11%)	Proprietary		0.164	mg	19990	10230
Encapsulation				supplier	Molding compound	Solid Epoxy Resin-2 (0.1-11%)	Proprietary		0.164	mg	19990	10230
Encapsulation				supplier	Molding compound	Phenol resin (2-12%)	Proprietary		0.329	mg	40225	20584
Encapsulation				supplier	Molding compound	Amorphous Silica (85-95%)	60676-86-0		7.285	mg	889809	455343
Encapsulation				supplier	Molding compound	Carbon Black (<1%)	1333-86-4		0.041	mg	4998	2557
Encapsulation				supplier	Molding compound	Crystalline silica (less than 5%)	14808-60-7		0.205	mg	24988	12787