



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 *	2020-02-07
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 *	Floriana SAN BIAGIO	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
0	MBYB*UI73ACA	A	9998	2020-02-07
Amount	UoM	Unit type	ST ECOPACK Grade	
88	mg	Each	ECOPACK® 2	
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	
3	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	0	

Package Designator	Size	Nbr of instances	Shape	
SOJ	4.4 x 7.8	24	J bend	
Comment	YB TSSOP 24 BODY 4.40 0.65; MDF is valid for LED1642GWTTTR			

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 3rd January 2020			
Query	Response		
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen	TRUE		
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen	FALSE		
Substance	amount in product (mg)	Application	ppm in product

QueryList : REACH-16th January 2020				
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
,			,	

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update				
Query	Response			
The Product does contain at least one of the substances listed in Chemical Control Act	NO			
Substance	Homogeneous Material impacted	Content in Homogeneous Material (mg)	Concentration in the material(%)	Application Purpose

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	MBYB*UI73ACA				6000002.0	1000705.0
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	2.551	mg	supplier	die	Silicon(Si)	7440-21-3		2.432	mg	953352	27636
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.025	mg	9800	284
				supplier	metallisation	Tungsten(W)	7440-33-7		0.020	mg	7840	227
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.005	mg	1960	57
				supplier	passivation	Silicon oxide	7631-86-9		0.043	mg	16856	489
				supplier	polymer coating	polyimide	proprietary		0.026	mg	10192	295
Leadframe	M-004 Copper and its alloys	22.747	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		22.030	mg	968479	250341
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.518	mg	22772	5886
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.031	mg	1363	352
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.027	mg	1187	307
				supplier	alloy & coating	Silver (Ag)	7440-22-4		0.141	mg	6199	1602
Die attach	M-015 Other organic materials	0.544	mg	supplier	glue	Silver (Ag)	7440-22-4		0.436	mg	801471	4955
				supplier	glue	Bisphenol F type epoxy resin	9003-36-5		0.044	mg	80882	500
				supplier	glue	Epoxy resin	68475-94-5		0.016	mg	29412	182
				supplier	glue	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.016	mg	29412	182
				supplier	glue	lactone	Proprietary		0.016	mg	29412	182
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.016	mg	29412	182
Bonding wires	M-008 Precious metals	0.681	mg	supplier	wire	Gold (Au)	7440-57-5		0.681	mg	1000000	7739
Encapsulation	M-015 Other organic materials	60.437	mg	supplier	mold compound	Epoxy Resin	Proprietary		4.585	mg	75864	52102
				supplier	mold compound	Phenol Resin	Proprietary		3.057	mg	50582	34739
				supplier	mold compound	Silica, vitreous	60676-86-0		52.245	mg	864454	593693
				supplier	mold compound	Carbon black	1333-86-4		0.305	mg	5047	3466
				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.245	mg	4054	2784
connections coating	Solder	1.102	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.102	mg	1000000	12523