



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 *	2020-04-01
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 * **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
LM324QT	AYOF*0124BH6	A	SA1A	2020-04-01
	Amount	UoM	Unit type	ST ECOPACK Grade
	25	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	
qfn	30.93	16	flat	
Comment	VFQFPN 3x3x0.9 1.7 16L			

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 2020/363_March 2020	
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 :						Mr Item Name	AYOF*0124BH6				19114892.0	1085601.0
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 or dies	M-011 Other inorganic materials	1.292	mg	supplier	die	Silicon(Si)	7440-21-3		1.269	mg	982198	51481
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.011	mg	8514	446
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.005	mg	3870	203
				supplier	passivation	Silicon oxide	7631-86-9		0.007	mg	5418	284
Lead frame	Copper and its alloys	9.811	mg	supplier	Alloy	Copper	7440-50-8		9.455	mg	965979	383570
Lead frame				supplier	Alloy	Iron	7439-89-6		0.221	mg	22579	8966
Lead frame				supplier	Alloy	Phosphorus	7723-14-0		0.002	mg	204	81
Lead frame				supplier	Alloy	Zinc	7440-66-6		0.012	mg	1226	487
Lead frame				supplier	Alloy	Silver	7440-22-4		0.122	mg	12464	4949
Die attach	Other organic materials	0.029	mg	supplier	Glue	Silver (Ag)	7440-22-4		0.122	mg	12464	4949
Die attach				supplier	Glue	methylene diacrylate	42594-17-2		0.003	mg	93750	122
Die attach				supplier	Glue	Dicyclopentenyloxethyl methacrylate	68586-19-6		0.001	mg	31250	41
Die attach				supplier	Glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.001	mg	31250	41
Die attach				supplier	Glue	Palladium (Pd)	7440-05-3		0.001	mg	31250	41
Die attach				supplier	Glue	Bis(o,a-dimethylbenzyl) peroxide	89-43-3		0.002	mg	62500	81
Bonding wire	Other inorganic materials	0.200	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.994	mg	4970000	40325
Encapsulation	Other organic materials	13.231	mg	supplier	Molding compound	Silica fused	60676-86-0		12.394	mg	936952	502799
Encapsulation				supplier	Molding compound	Epoxy resin	7440-57-5		0.994	mg	4970000	40325
Encapsulation				supplier	Molding compound	Phenol resin	7440-57-5		0.994	mg	4970000	40325
Encapsulation				supplier	Molding compound	Carbon black	1333-86-4		0.040	mg	3024	1623
Finishing	Other inorganic materials	0.110	mg	supplier	Connection coating	Sn	7440-31-5		0.110	mg	1000000	4462