



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-04-30
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
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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
	PRO7*KA33FC1	A	999L-Z9LA	2020-04-30
Amount	UoM	Unit type	ST ECOPACK Grade	
77	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
1	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	
DSO	4.9 x 3.9	8	gull wing	
Comment	07 SO 08 .15 JEDEC; MDF is valid for LM2931AD33R			

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			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	die	157

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
,	0			
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
,	0		,	

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	PRO7*KA33FC1				5999964.0	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	1.844	mg	supplier	die	Silicon(Si)	7440-21-3		1.785	mg	968004	23333
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.023	mg	12473	301
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.001	mg	542	13
				supplier	metallisation	Gold(Au)	7440-57-5		0.004	mg	2169	52
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.012	mg	6508	157
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.008	mg	4338	105
Leadframe	M-004 Copper and its alloys	26.929	mg	supplier	passivation	Silicon oxide	7631-86-9		0.011	mg	5965	144
				supplier	alloy & coating	Copper(Cu)	7440-50-8		25.932	mg	962977	338980
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.673	mg	24992	8797
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.027	mg	1003	353
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.027	mg	1003	353
				supplier	alloy & coating	Silver (Ag)	7440-22-4		0.269	mg	9989	3516
Die attach	M-015 Other organic materials	0.899	mg	supplier	glue	Silver (Ag)	7440-22-4		0.665	mg	739711	8693
				supplier	glue	Acrylate monomer	61434-04-6		0.162	mg	180200	2118
				supplier	glue	Acrylate oligomer	Proprietary		0.045	mg	50056	588
				supplier	glue	Bismaleimide resin	35325-39-4		0.018	mg	20022	235
Bonding wires	M-004 Copper and its alloys	0.600	mg	supplier	glue	Epoxy resin	26875-67-2		0.009	mg	10011	118
				supplier	wire	Copper (Cu)	7440-50-8		0.582	mg	970000	7608
				supplier	wire	Palladium (Pd)	7440-05-3		0.018	mg	30000	235
Encapsulation	M-015 Other organic materials	45.176	mg	supplier	mold compound	Epoxy Resin 1	29690-82-2		1.104	mg	24438	14431
				supplier	mold compound	Epoxy Resin 2	Proprietary		1.104	mg	24438	14431
				supplier	mold compound	Epoxy Resin 3	Proprietary		1.104	mg	24438	14431
				supplier	mold compound	Phenol Resin	25068-38-6		1.254	mg	27758	16392
				supplier	mold compound	Carbon black	1333-86-4		0.050	mg	1107	654
connections coating	Solder	1.053	mg	supplier	mold compound	Amorphous silica	60676-86-0		39.356	mg	871171	514458
				supplier	solder alloy	Crystal silica	14808-60-7		1.204	mg	26651	15739
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.053	mg	1000000	13765