



## Materials Declaration Form

<b>IPC</b>	<b>1752</b>	<b>Version</b>	<b>2</b>
<b>Form Type *</b>	<b>Distribute</b>		
<b>Sectionals *</b>	<b>Material Info</b> <b>Manufacturing Info</b>	<b>Subsectionals *</b>	<b>A-D</b>

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2020-02-03</b>
<b>Company Unique ID</b>	<b>NL 008751171B01</b>		
<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>	<b>Antonella Lanzafame</b>	<b>Representative Title</b>	<b>AMS MD CHAMPION</b>
<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>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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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
KF33BD-TR	PZO7*KF336C1	A	SH1A	2020-02-03
	Amount	UoM	Unit type	ST ECOPACK Grade
	80	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	
DSO	4.85 x 3.9	9	gull wing	
Comment	07 SO 08 .15 JEDEC			

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			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	0.10	alloy	1238

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

Material Composition Declaration :						Mfr Item Name	PZO7*KF336C1				5000000.0	1000007.0
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	2.996	mg	supplier	die	Silicon(Si)	7440-21-3		2.899	mg	967623	36238
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.037	mg	12350	463
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.002	mg	668	25
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.020	mg	6676	250
				supplier	metallisation	Silver(Ag)	7440-22-4		0.007	mg	2336	88
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.013	mg	4339	163
Leadframe	M-004 Copper and its alloys	35.401	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		34.694	mg	980029	433675
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		0.079	mg	2232	988
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.016	mg	452	200
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.029	mg	819	363
				supplier	alloy & coating	Silver (Ag)	7440-22-4		0.572	mg	16158	7150
				supplier	alloy & coating	Palladium(Pd)	7440-05-3		0.010	mg	282	125
Die attach		0.629	mg	supplier	alloy & coating	Gold(Au)	7440-57-5		0.001	mg	28	13
				supplier	glue	Silver(Ag)	7440-22-4		0.552	mg	877583	6900
				supplier	glue	Isobornyl Methacrylate	7534-94-3		0.031	mg	49285	388
				supplier	glue	Isobornyl acrylate	5888-33-5		0.031	mg	49285	388
				supplier	glue	Methyl acrylate polymer	87320-05-6		0.013	mg	20668	163
				supplier	glue	Epoxyhexylethyltrimethoxysilane	3388-04-3		0.001	mg	1590	13
Bonding wires	M-004 Copper and its alloys	0.058	mg	#N/A	glue	Tert-Butyl peroxy(2-ethyl)-hexanoate	3006-82-4		0.001	mg	1590	13
Encapsulation	M-011 Other inorganic materials	40.916	mg	supplier	wire	Copper(Cu)	7440-50-8		0.058	mg	1000000	725
				supplier	mold compound	Silica vitreous	60676-86-0		35.432	mg	865969	442900
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		3.069	mg	75007	38363
				supplier	mold compound	Phenol resin	26834-02-6		2.046	mg	50005	25575
				supplier	mold compound	Carbon black	1333-86-4		0.205	mg	5010	2563
				supplier	mold compound	Bismuth compound	7440-69-9		0.164	mg	4008	2050