



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 *	2017-05-18
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Antonella Lanzafame	Representative Title	AMG 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
STEF01FTR	MU71*UAX0ACA	A	Z7GA	2017-05-18
	Amount	UoM	Unit type	ST ECOPACK Grade
	54.50	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	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.4x5x1.1	114	gull wing	
Comment	HTSSOP 14 4.4 PITCH 0.65 EXPAD			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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

ELV directive : 2000/53/EC amended 2016/774 _May 2016	
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

Query : California Prop65 list, dated 27th January 2017			
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
Nickel	0.05	backside metallization	844

QueryList : REACH-12th January 2017				
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

Material Composition Declaration :						Mfr Item Name	MU71*UAX0ACA			600001.0	999998.0	
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 (choose)	Other inorganic materials	8.980	mg	supplier	die	Silicon (Si)	7440-21-3		4.486	mg	499555	82312
				supplier	metallization	Aluminium (Al)	7429-90-5		0.031	mg	3452	569
				supplier	metallization	Copper (Cu)	7440-50-8		0.173	mg	19265	3174
				supplier	passivation	Nickel (Ni)	7440-02-0		0.017	mg	1893	312
				supplier	metallization	Platinum (Pt)	7440-06-4		0.010	mg	1114	183
				supplier	metallization	Titanium (Ti)	7440-32-6		0.110	mg	12249	2018
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	891	147
				supplier	Passivation	Silicon Nitride	12033-89-5		0.020	mg	2227	367
				supplier	Passivation	Silicon Oxide	7631-86-9		0.088	mg	9800	1615
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	223	37
				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	668	110
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.029	mg	3229	532
				supplier	polymer die coating	Polyimide AH 1200	Proprietary		4.000	mg	445434	73394
Leadframe	Copper & its alloys	25.029	mg	supplier	Alloy	Cu	7440-50-8		23.995	mg	958688	440275
				supplier	Alloy	Si	7440-21-3		0.181	mg	7232	3321
				supplier	Alloy	Ni	7440-02-0		0.801	mg	32003	14697
				supplier	Alloy	Mg	7439-95-4		0.044	mg	1758	807
				supplier	coating	Ag	7440-22-4		0.008	mg	320	147
Die Attach	Other Organic Materials	1.172	mg	supplier	Glue	Ag	7440-22-4		0.956	mg	581509	17541
				supplier	Glue	(Octahydro-4,7-methano-1 H-indenediyl)bis(m	42594-17-2		0.070	mg	42579	1284
				supplier	Glue	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl met	7534-94-3		0.070	mg	42579	1284
				supplier	Glue	Isobornyl acrylate	5888-33-5		0.070	mg	42579	1284
				supplier	Glue	2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	3388-04-3		0.006	mg	3650	110
				supplier	Glue	Epoxy Resin A	29690-82-2		0.033	mg	20073	606
				supplier	Glue	Epoxy Resin B	9003-36-5		0.066	mg	40146	1211
	Other Organic Materials	0.472	mg	supplier	Glue	Phenol Resin	25085-75-0		0.066	mg	40146	1211
				supplier	Glue	SiO2 Filler	7631-86-9		0.236	mg	143552	4330
				supplier	Glue	Acrylic Copolyme r	58152-79-7		0.071	mg	43187	1303
				supplier	Bonding wire	Cu	7440-50-8		0.160	mg	1000000	2936
				supplier	Molding compound	Epoxy resin A	Proprietary		0.911	mg	49992	16716
Encapsulation	Other Organic Materials	18.223	mg	supplier	Molding compound	Epoxy resin B	Proprietary		0.364	mg	19975	6679
				supplier	Molding compound	Phenol resin	29690-82-2		0.310	mg	17011	5688
				supplier	Molding compound	Carbon black	1333-86-4		0.055	mg	3018	1009
				supplier	Molding compound	Silica fused	60676-86-0		16.583	mg	910004	304275
connections coating	Solder	0.464	mg	supplier	Plating	Sn	7440-31-5		0.464	mg	1000000	8514