



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 *	2018-04-23
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
	KKK7*UI38BCA	B	SH1A	2018-04-23
	Amount	UoM	Unit type	ST ECOPACK Grade
	130	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	8.6x3.9x1.52	14	gull wing	
Comment	K7 SO 14 .15 TO JEDEC MS-012; MDF valid for L6491DTR			

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 : REACH-15th January 2018				
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
-	-	0.00		

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	KKK7*U188CA				4999998.0	1000006.0
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	3.294	mg	supplier	die	Silicon (Si)	7440-21-3		3.186	mg	967213	24508
				supplier	metallization	Aluminium (Al)	7429-90-5		0.015	mg	4554	115
				supplier	metallization	Tungsten (W)	7440-33-7		0.019	mg	5768	146
				supplier	Passivation	Silicon Nitride	12033-89-5		0.005	mg	1518	38
				supplier	Passivation	Silicon Oxide	7631-86-9		0.052	mg	15786	400
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	607	15
				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	1518	38
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	2732	69
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	304	8
				Leadframe	M-004 Copper and its alloys	34.926	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						0.797	mg	22820	6131
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.048	mg	1374	369
supplier	alloy	Zinc (Zn)	7440-66-6						0.042	mg	1203	323
supplier	metallization	Nickel (Ni)	7440-02-0						0.139	mg	3980	1069
supplier	metallization	Palladium (Pd)	7440-05-3						0.005	mg	143	38
supplier	metallization	Gold (Au)	7440-57-5						0.007	mg	200	54
supplier	metallization	Silver (Ag)	7440-22-4						0.003	mg	86	23
supplier	glue	Silver (Ag)	7440-22-4						0.801	mg	877327	6162
supplier	glue	Isobornyl Methacrylate	7534-94-3						0.046	mg	50383	354
Die attach	M-015 Other organic materials	0.913	mg	supplier	glue	Acrylate resin	5888-33-5		0.046	mg	50383	354
				supplier	glue	Methyl acrylate polymer	87320-05-6		0.018	mg	19715	138
				supplier	glue	Epoxy cyclohexylethyltrimethoxysilane	3388-04-3		0.001	mg	1095	8
				supplier	glue	tert-Butyl peroxy(2-ethyl)-hexanoate	3006-82-4		0.001	mg	1095	8
				supplier	wire	Copper (Cu)	7440-50-8		0.077	mg	1000000	592
				supplier	mold compound	Silica, vitreous	60676-86-0		79.623	mg	876992	612485
				supplier	mold compound	Epoxy resin	85954-11-6		3.632	mg	40004	27938
				supplier	mold compound	Epoxy	29690-82-2		3.632	mg	40004	27938
				supplier	mold compound	phenol resin	Proprietary		2.724	mg	30003	20954
				supplier	mold compound	additive	Proprietary		0.908	mg	10001	6985
supplier	mold compound	carbon black	1333-86-4		0.272	mg	2996	2092				