



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 *	2018-06-19
Company Unique ID	NL 008751171801		
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
	MB61*UP74DEA	A	ZY1A	2018-06-19
Amount	UoM	Unit type	ST ECOPACK Grade	
79.52	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		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.85x3.9x1.52	8	gull wing	
Comment	61 HSOP 8L .150" PITCH 1.27 EXPOPAD; MDF valid for ST1S14PHR			

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

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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	MB61*UP74DEA				5000002.0	899998.0
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	2.570	mg	supplier	die	Silicon (Si)	7440-21-3		2.434	mg	947082	30609
				supplier	metallization	Aluminium (Al)	7429-90-5		0.025	mg	9728	314
				supplier	metallization	Tungsten (W)	7440-33-7		0.020	mg	7782	252
				supplier	Passivation	Silicon Nitride	12033-89-5		0.005	mg	1946	63
				supplier	Passivation	Silicon Oxide	7631-86-9		0.043	mg	16732	541
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	778	25
				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	1946	63
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	3502	113
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	389	13
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.026	mg	10117	327
				supplier	Alloy	Copper (Cu)	7440-50-8		19.823	mg	927088	249283
Leadframe	M-004 Copper and its alloys	21.382	mg	supplier	Alloy	Iron (Fe)	7439-89-6		0.477	mg	22308	5998
				supplier	Alloy	Zinc (Zn)	7440-66-6		0.025	mg	1169	314
				supplier	Alloy	Iron Phosphide (FeP)	26508-33-8		0.017	mg	795	214
				supplier	coating	Silver (Ag)	7440-22-4		1.040	mg	48639	13078
				supplier	glue	Silver (Ag)	7440-22-4		0.345	mg	798611	4339
Die Attach	M-015 Other organic materials	0.432	mg	supplier	glue	Epoxy resin (molecular weight <= 700g)	9003-36-5		0.035	mg	81019	440
				supplier	glue	Epoxy resin	68475-94-5		0.013	mg	30093	163
				supplier	glue	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.013	mg	30093	163
				supplier	glue	Gamma Butyrolactone	96-48-0		0.013	mg	30093	163
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.013	mg	30093	163
Bonding wires	M-008 Precious metals	54.232	mg	supplier	wire	Gold (Au)	7440-57-5		0.383	mg	7062	4816
				supplier	Mold Compound	Biphenyl epoxy resin	85954-11-6		4.308	mg	79436	54175
				supplier	Mold Compound	Phenol resin	26834-02-6		2.154	mg	39718	27088
				supplier	Mold Compound	Silica, vitreous	60676-86-0		46.795	mg	862867	588468
				supplier	Mold Compound	Carbon black	1333-86-4		0.269	mg	4960	3383
Finishing	M-011 Other inorganic materials	0.904	mg	supplier	Mold Compound	Bismuth (Bi)	7440-69-9		0.323	mg	5956	4062
				supplier	connection coating	Tin (Sn)	7440-31-5		0.904	mg	1000000	11368