



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2017-12-20
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	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
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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 omprehensive 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
	AKO7*U1M0ABA	A	SH1A	2017-12-20
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.9x3.9x1.75	8	gull wing	
Comment	Package: O7 SO 08 .15 JEDEC; MDF valid for L6498D			

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-7th July 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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	AKO7*U1M0ABA									
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Die	Other inorganic materials	3.302	mg	supplier	die	Silicon (Si)	7440-21-3		3.186	mg	964870	39825				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.015	mg	4543	188				
				supplier	metallization	Tungsten (W)	7440-33-7		0.019	mg	5754	238				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.005	mg	1514	63				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.052	mg	15748	650				
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	606	25				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	1514	63				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	2726	113				
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	303	13				
				supplier	polymer die coating	PIX1 Polyimide	108-65-6		0.008	mg	2423	100				
				Leadframe	Copper & its alloys	29.277	mg	supplier	alloy	Copper (Cu)	7440-50-8		28.245	mg	964750	353063
supplier	alloy	Iron (Fe)	7439-89-6						0.664	mg	22680	8300				
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.040	mg	1366	500				
supplier	alloy	Zinc (Zn)	7440-66-6						0.035	mg	1195	438				
supplier	metallization	Nickel (Ni)	7440-02-0						0.288	mg	9154	3350				
supplier	metallization	Palladium (Pd)	7440-05-3						0.009	mg	307	113				
supplier	metallization	Gold (Au)	7440-57-5						0.008	mg	273	100				
supplier	metallization	Silver (Ag)	7440-22-4						0.008	mg	273	100				
supplier	glue	Silver (Ag)	7440-22-4						0.801	mg	877327	10013				
supplier	glue	Isobornyl Methacrylate	7534-94-3						0.046	mg	50383	575				
Die attach	Other Organic Materials	0.913	mg					supplier	glue	Urethane Methacrylate Resin	5888-33-5		0.046	mg	50383	575
				supplier	glue	Acrylate polymer	87320-05-6		0.018	mg	19715	225				
				supplier	glue	Epoxyoctohexylethyltrimethoxysilane	3388-04-3		0.001	mg	1095	13				
				supplier	glue	tert-Butyl peroxy(2-ethyl)-hexanoate	3006-82-4		0.001	mg	1095	13				
				supplier	wire	Copper (Cu)	7440-50-8		0.054	mg	1000000	675				
				Encapsulation	Other Organic Materials	46.454	mg	supplier	mold compound	Silica, vitreous	60676-86-0		40.229	mg	865996	502863
								supplier	mold compound	Epoxy Resin	25068-38-6		3.484	mg	74999	43550
								supplier	mold compound	Phenol Resin	29690-82-2		2.323	mg	50006	29038
								supplier	mold compound	Carbon black	1333-86-4		0.232	mg	4994	2900
								supplier	mold compound	Bismuth compound	7440-69-9		0.186	mg	4004	2325