



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 *	2015-11-11
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Flavio Di Francesco	Representative Title	AMS Materials Declaration 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
	A9EH*UA89AA5	A	MU1A	2015-11-11
Amount	UoM	Unit type	ST ECOPACK Grade	
480.00	mg	Each	ECOPACK® 2	

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	10.30,7.5,2.28	36	gull wing	
Comment	Package: EH PowerSSO36; MD valid for TDA7491HV13TR			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-15th June 2015				
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	A9EH*UA89AAS									
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	6.456	mg	supplier	die	Silicon (Si)	7440-21-3		6.122	mg	948265	12754				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.047	mg	7280	98				
				supplier	metallization	Tungsten (W)	7440-33-7		0.037	mg	5731	77				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	1549	21				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.080	mg	12392	167				
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.004	mg	620	8				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.009	mg	1394	19				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.017	mg	2633	35				
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	155	2				
				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.080	mg	12392	167				
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.049	mg	7590	102				
				Leadframe	Copper & its alloys	133.366	mg	supplier	alloy	Copper (Cu)	7440-50-8		128.102	mg	960530	266879
								supplier	alloy	Iron (Fe)	7439-89-6		3.013	mg	22592	6277
								supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.181	mg	1357	377
supplier	alloy	Zinc (Zn)	7440-66-6						0.158	mg	1185	329				
supplier	metallization	Silver (Ag)	7440-22-4						1.912	mg	14336	3983				
Soft solder	Other inorganic materials	3.952	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	3.853	mg	974949	8027				
				supplier	solder	Silver (Ag)	7440-22-4		0.059	mg	14929	123				
				supplier	solder	Tin (Sn)	7440-31-5		0.040	mg	10121	83				
Bonding wires	Other inorganic materials	1.268		supplier	wire	Copper (Cu)	7440-50-8		1.268	mg	1000000	2642				
Encapsulation	Other Organic Materials	330.725	mg	supplier	mold compound	silica vitreous	60676-86-0		292.692	mg	885001	609775				
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		17.528	mg	52999	36517				
				supplier	mold compound	Phenol Resin	205830-20-2		13.229	mg	40000	27560				
				supplier	mold compound	epoxy resin	Proprietary		6.615	mg	20002	13781				
				supplier	mold compound	carbon black	1333-86-4		0.661	mg	1999	1377				
connections coating	Solder	4.233	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.233	mg	1000000	8819				