



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-04-11
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	Refer to "Supplier Comment" section
<b>Authorized Representative *</b>	Floriana San Biagio	<b>Representative Title</b>	AMG Materials Declaration Champion
<b>Representative Phone *</b>	Refer to "Supplier Comment" section	<b>Representative Email *</b>	Refer to "Supplier Comment" section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</a>		

Uncertainty Statement	
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Legal Statement	
<b>Supplier Acceptance *</b>	true
	<b>Legal Declaration *</b> <b>Standard</b>
<b>Legal Statement</b>	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	EBE3*VA16AAY	A	ZY1A	2016-04-11
Amount	UoM	Unit type	ST ECOPACK Grade	
23.70	mg	Each	ECOPACK® 3	
Comment		ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	3X3X0.86	8	gull wing	
Comment		Package: E3 MSOP/TSSOP 8 BODY3.00 PITCH0.65; MDF valid for TSZ122IYST		

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-17th December 2015				
Query				Response
The product 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	EBE3*VA16AAY					
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	0.477	mg	supplier	die	Silicon (Si)	7440-21-3		0.449	mg	941300	18945
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	10482	211
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	2096	42
Die				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	2096	42
Die				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	4193	84
Die				supplier	Passivation	Silicon Oxide	7631-86-9		0.011	mg	23061	464
Die				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.008	mg	16771	338
Leadframe	Copper & its alloys	9.714	mg	supplier	alloy	Copper (Cu)	7440-50-8		9.158	mg	942763	381224
Leadframe				supplier	alloy	Nickel (Ni)	7440-02-0		0.286	mg	29442	11899
Leadframe				supplier	alloy	Silicon (Si)	7440-21-3		0.062	mg	6383	2574
Leadframe				supplier	alloy	Magnesium (Mg)	7439-95-4		0.014	mg	1441	591
Leadframe	Nickel (Ni)			supplier	metallization	Nickel (Ni)	7440-02-0		0.188	mg	19354	7806
Leadframe	Precious metals			supplier	metallization	Palladium (Pd)	7440-05-3		0.004	mg	412	169
Leadframe	Precious metals			supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	206	84
Die attach	Other Organic Materials	0.339	mg	supplier	glue	Epoxy resin A	9003-36-5		0.023	mg	67847	970
Die attach				supplier	glue	Epoxy resin B	68475-94-5		0.014	mg	41298	591
Die attach				supplier	glue	Silver(Ag)	7440-22-4		0.26	mg	766962	10844
Die attach				supplier	glue	Lactone	96-48-0		0.014	mg	41298	591
Die attach				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.014	mg	41298	591
Die attach				supplier	glue	2,6-Diglycidyl phenyl allyl ether oligomer	proprietary		0.014	mg	41298	591
Bonding wire	Precious metals	0.071	mg	supplier	wire	Gold (Au)	7440-57-5		0.071	mg	1000000	2954
encapsulation	Other Organic Materials	13.098	mg	supplier	mold compound	Epoxy Resin	proprietary		1.179	mg	90014	49072
encapsulation				supplier	mold compound	Silica fused (SiO2)	60676-86-0		11.002	mg	839976	457975
encapsulation				supplier	mold compound	Phenol Resin	proprietary		0.852	mg	65048	35485
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.065	mg	4963	2700