Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	01/08/2015
Contact Name *	Refer to " Supplier Comment" section	Contact Title	Refer to " Supplier Comment" section
Contact Phone *	Refer to " Supplier Comment" section	Contact Email *	Refer to " Supplier Comment" section
Authorized Representative *	Giuseppe Vitali Palma	Representative Title	AMS & IPD 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/internet/com/support/online_tech_support.jsp		

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 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
	TSTY*EWFET5S	A	Z4LA	01/08/2015
	Amount	UoM	Unit type	ST ECOPACK Grade
	5163.000	mg	Each	ECOPACK® 1

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
NAC	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	15.60X19.90X4.80	2	Through-hole	
Comment	Package: TO3P-3L; MD valid for STGWT20H65FB			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	**Response**
Product(s) meets EU RoHS requirement without any exemptions	**false**
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)	**true**
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-16th June 2014	
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	TSTY*EWFETSS					
Homogeneous Material	**Material Group**	**Mass**	**UoM**	**Level**	**Substance Category**	**Substance**	**CAS**	**Exempt**	**Mass**	**UoM**	**Concentration in homogeneous material (ppm)**	**Concentration in product (ppm)**
Silicon Die	Other inorganci materials	2.388	mg	supplier	Silicon die	Silicon	7440-21-3		2.053	mg	859715	398
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.163	mg	68258	32
Silicon Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.039	mg	16332	8
Silicon Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.057	mg	23869	11
Silicon Die				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	1675	1
Silicon Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.048	mg	20101	9
Silicon Die				supplier	back side metallization	Vanadium (V)	7440-62-2		0.004	mg	1675	1
Silicon Die				supplier	back side metallization	Silver (Ag)	7440-22-4		0.02	mg	8375	4
Lead Frame	Copper & its alloys	3402.151	mg	supplier	frame alloy	Cu	7440-50-8		3384.119	mg	994700	655456
Lead Frame				supplier	frame alloy	Fe	7439-89-6		3.402	mg	1000	659
Lead Frame				supplier	frame alloy	Iron Phosphide (Fe2P)	1310-43-6		13.609	mg	4000	2636
Lead Frame				supplier	frame coating	Ni	7740-02-0		1.021	mg	300	198
Die attach	Other Organic Material	10.33	mg	JIG R	soft solder	Pb	7439-92-1	7a-Lead in high me	9.865	mg	954985	1911
Die attach				supplier	soft solder	Sn	7440-31-5		0.207	mg	20039	40
Die attach				supplier	soft solder	Ag	7440-22-4		0.258	mg	24976	50
Bonding wire	Other inorganic materials	2.05	mg	supplier	Bonding wire	Al	7429-90-5		2.05	mg	1000000	397
Encapsulation	Other inorganic materials	1732.081	mg	supplier	Molding Compound	Silica Fused	60676-86-0		1298.773	mg	749834	251554
Encapsulation				supplier	Molding Compound	Bisphenol F type epoxy resin	9003-36-5		242.674	mg	140105	47003
Encapsulation				supplier	Molding Compound	Phenol resin	9003-35-4		125.645	mg	72540	24336
Encapsulation				JIG I	Molding Compound	Brominated expoxy resin	Proprietary		25.995	mg	15008	5035
Encapsulation				supplier	Molding Compound	Antimony-trioxide	1309-64-4		34.661	mg	20011	6713
Encapsulation				supplier	Molding Compound	Carbon black	1333-86-4		4.333	mg	2502	839
Finishing	Other inorganic materials	14	mg	supplier	Connection coating	Sn	7440-31-5		14	mg	1000000	2712