Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-08-28
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**
	HYWO*V315I61	A	ZS1A	2014-08-28
	Amount	**UoM**	**Unit type**	**ST ECOPACK Grade**
	6.103	mg	Each	ECOPACK® 2

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	
SOT	0.94X1.29X2.10	6	gull wing	
Comment	Package: SOT 323 6LDS; MD valid for STG3157CTR			

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-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	HYWO*V315I61					
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 Inorganic Material	0.289	mg	Supplier	Silicon Die	Silicon (Si)	7440-21-3		0.282	mg	975779	46207
Silicon Die			mg	Supplier	metallization	Aluminium (Al)	7429-90-5		0.001	mg	3460	164
Silicon Die			mg	Supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	3460	164
Silicon Die			mg	Supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.001	mg	3460	164
Silicon Die			mg	Supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.004	mg	13841	655
Leadframe	Copper and its alloy	2.880	mg	Supplier	Alloy	Copper (Remaining)	7440-50-8		2.774	mg	962526	454531
Leadframe			mg	Supplier	Alloy	Iron (2.1-2.6%)	7439-89-6		0.065	mg	22554	10650
Leadframe			mg	Supplier	Alloy	Iron Phosphide(Fe2P)	1310-43-6		0.001	mg	347	164
Leadframe			mg	Supplier	Alloy	Zinc (0.05-0.2%)	7440-66-6		0.004	mg	1388	655
Leadframe			mg	Supplier	Alloy	Nickel (0.8-1.5%)	7440-02-0		0.033	mg	11450	5407
Leadframe			mg	Supplier	Alloy	Palladium (0.05-0.15%)	7440-05-3		0.003	mg	1041	492
Leadframe			mg	Supplier	Alloy	Gold (0.01-0.02%)	7440-57-5		0.002	mg	694	328
Die Attach	Other Organic Material	0.02	mg	Supplier	Glue	Aluminium oxide (20-35%)	1344-28-1		0.006	mg	300000	983
Die Attach			mg	Supplier	Glue	Diethylene glycol monoethyl ether acetate (2(	112-15-2		0.008	mg	400000	1311
Die Attach			mg	Supplier	Glue	Epoxyde Bisphenol A Resin	25068-38-6		0.001	mg	50000	164
Die Attach			mg	Supplier	Glue	Epoxy resin (10-30%)	Proprietary		0.004	mg	200000	655
Die Attach			mg	Supplier	Glue	Aromatic amine (1-5%)	Proprietary		0.001	mg	50000	164
Bonding Wire	Other Inorganic Material	0.02	mg	Supplier	Bonding Wire	gold (Au)	7440-57-5		0.02	mg	1000000	3277
Encapsulation	Other Organic Material	2.894	mg	Supplier	Molding Compound	Epoxy Resin-1 (0.5-6%)	Proprietary		0.086	mg	29737	14091
Encapsulation			mg	Supplier	Molding Compound	Epoxy Resin-2 (1-5%)	Proprietary		0.086	mg	29737	14091
Encapsulation			mg	Supplier	Molding Compound	Phenol resin (3-6%)	Proprietary		0.129	mg	44606	21137
Encapsulation			mg	Supplier	Molding Compound	Silica (82-94%)	60676-86-0		2.509	mg	867566	411109
Encapsulation			mg	Supplier	Molding Compound	Carbon Black (0.2%)	1333-86-4		0.006	mg	2075	983
Encapsulation			mg	Supplier	Molding Compound	Magnesium hydroxide	1309-42-8		0.058	mg	20055	9504
Encapsulation			mg	Supplier	Molding Compound	Zinc hydroxide	20427-58-1		0.018	mg	6224	2949