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 *	2013-03-11
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	Group MD CHAMPION (CSD 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

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

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
	HYE3*0882AAJ	A	ZS1A	2013-03-11
	Amount	UoM	Unit type	ST ECOPACK Grade
	28.00	mg	Each	ECOPACK® 1

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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	3X3X0.86	8	gull wing	
Comment				

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-19 December 2012				
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	HYE3*0882AAJ					
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 materials	0.447	mg		Silicon die	Silicon (Si)	7440-21-3		0.447	mg	1000000	15964
Lead frame	Copper & its alloys	9.899	mg		Alloy	Copper	7440-50-8		9.562	mg	965956	341500
Lead frame			mg		Alloy	Iron (2.1-2.6%)	7439-89-6		0.223	mg	22528	7964
Lead frame			mg		Alloy	Phosphorus	7723-14-0		0.002	mg	202	71
Lead frame			mg		Alloy	Zinc (0.05-0.2%)	7440-66-6		0.013	mg	1313	464
Lead frame			mg		Coating	Silver	7440-22-4		0.099	mg	10001	3536
Die attach	Other Organic Materials	0.621	mg		Glue	Silver (80-100%)	7440-22-4		0.499	mg	803543	17821
Die attach			mg		Glue	Carbocyclic Acrylates0%)	Proprietary		0.062	mg	99839	2214
Die attach			mg		Glue	Bismaleimide resin	Proprietary		0.019	mg	30596	679
Die attach			mg		Glue	2-preponoic acid, 2-methyl	68586-19-6		0.019	mg	30596	679
Die attach			mg		Glue	Additive	proprietary		0.019	mg	30596	679
Die attach			mg		Glue	Dicumlyl peroxide	80-43-3		0.003	mg	4831	107
Bonding wire	Precious metals	0.31	mg		Bonding wire	Gold (Au)	7440-57-5		0.31	mg	1000000	11071
Encapsulation	Other Organic Materials	16.723	mg		Molding compound	Silica	60676-86-0		14.328	mg	893267	511714
Encapsulation			mg		Molding compound	Epoxy resin-1	Proprietary		0.48	mg	29925	17143
Encapsulation			mg		Molding compound	Epoxy resin-2	Proprietary		0.48	mg	29925	17143
Encapsulation			mg		Molding compound	Phenol resin	Proprietary		0.72	mg	44888	25714
Encapsulation			mg		Molding compound	Carbon black	1333-86-4		0.032	mg	1995	1143
Finishing	Solder	0.683	mg		Connection coating	Sn	7440-31-5		0.683	mg	1000000	24393