



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Sectionals *	A-D <i>* : Required Field</i>

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-01-16
Company Unique ID	NL 008751171801		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	Representative Title	ADG MD 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
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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
DSL05-012SC6	CDWB*CWU012A	A	ZS1A	2018-01-16
Amount	UoM	Unit type	ST ECOPACK Grade	
16	mg	Each	ECOPACK® 2	
Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)			

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	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SOT	2.9 - 1.625 - 1.175	6	gull wing	
Comment	Package: SOT 23 - 6L			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015			
Query			Response
1 - Product(s) meets EU RoHS requirement without any exemptions			TRUE
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)			FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions			FALSE
Exemption Id.	Description		

QueryList : California Prop65 list, dated 15th December 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.10	Die - Leadframe	6188

QueryList : REACH-15th January 2018				
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	CDWB*CWU012A					
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	M-011 Other inorganic materials	0.360	mg	supplier	die	Silicon (Si)	7440-21-3		0.339	mg	941667	21188
				supplier	metallization	Aluminium (Al)	7429-90-5		0.011	mg	30556	688
				supplier	Passivation	Silicon Oxide	7631-86-9		0.006	mg	16667	375
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	2777	63
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.003	mg	8333	188
Leadframe	M-004 Copper and its alloys	8.332	mg	supplier	alloy	Copper (Cu)	7440-50-8		8.027	mg	963394	501688
				supplier	alloy	Iron (Fe)	7439-89-6		0.188	mg	22564	11750
				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	240	125
				supplier	alloy	Zinc (Zn)	7440-66-6		0.010	mg	1200	625
				supplier	metallization	Nickel (Ni)	7440-02-0		0.096	mg	11522	6000
				supplier	metallization	Palladium (Pd)	7440-05-3		0.008	mg	960	500
				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	120	63
Die attach	M-011 Other inorganic materials	0.044	mg	supplier	glue	Silver (Ag)	7440-22-4		0.036	mg	818182	2250
				supplier	glue	Carbocyclic Acrylates	proprietary		0.005	mg	113637	313
				supplier	glue	Bismaleimide resin	proprietary		0.001	mg	22727	63
				supplier	glue	2-preponic acid, 2-methyl	68586-19-6		0.001	mg	22727	63
				supplier	glue	Additive	proprietary		0.001	mg	22727	63
Die attach 2	M-011 Other inorganic materials	0.038	mg	supplier	glue	Silver (Ag)	7440-22-4		0.026	mg	684208	1619
				supplier	glue	2-(2-Ethoxyethoxy)ethyl acetate	112-15-2		0.002	mg	52632	125
				supplier	glue	Proylene carbonate	108-32-7		0.002	mg	52632	125
				supplier	glue	3,3-Diamino diphenyl sulfone	599-61-1		0.002	mg	52632	125
				supplier	glue	Urethane acrylate oligomer	Proprietary		0.002	mg	52632	125
				supplier	glue	Rubber modified epoxy	Proprietary		0.002	mg	52632	125
				supplier	glue	Epoxy resin	Proprietary		0.002	mg	52632	125
Bonding wires	M-004 Copper and its alloys	0.174	mg	supplier	wires	Copper (Cu)	7440-50-8		0.174	mg	1000000	10875
Encapsulation	M-011 Other inorganic materials	7.052	mg	supplier	mold compound	Epoxy Resin	25068-38-6		0.423	mg	59983	26438
				supplier	mold compound	Phenol resin	29690-82-2		0.317	mg	44952	19813
				supplier	mold compound	Silica	60676-86-0		6.298	mg	893080	393625
				supplier	mold compound	Carbon Black	1333-86-4		0.014	mg	1985	875