



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 *	2020-04-08
Company Unique ID	NL 008751171B01		
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

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
STH270N4F3-6	R6(4*4D4KA52	A	SH1A	2020-04-08
	Amount	UoM	Unit type	ST ECOPACK Grade
	1380	mg	Each	ECOPACK® 1
Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices			

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	Tin (Sn), matte	Copper Alloy		



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Package Designator	Size	Nbr of instances	Shape	
DIP	10.2 - 9.15 - 4.5	7	Through-hole	
Comment	Package: H2PAK 6 & 7 LEAD			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	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 : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 3rd January 2020			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product
Nickel	1.31	Die - Leadframe	949
Lead	15.67	Soft solder	11353
Antimony trioxide	8.63	Mold compound	6254

QueryList : REACH-16th January 2020				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	15.67	Soft solder	11353
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	15.67	Soft solder	955014

Material Composition Declaration :						Mfr Item Name	R6(4*4D4KA52					
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	19.714	mg	supplier	die	Silicon (Si)	7440-21-3		19.027	mg	965152	13788
				supplier	metallization	Aluminium (Al)	7429-90-5		0.378	mg	19174	274
				supplier	Passivation	Silicon Oxide	7631-86-9		0.134	mg	6797	97
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.009	mg	457	7
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.112	mg	5681	81
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.008	mg	406	6
Leadframe	M-004 Copper and its alloys	605.580	mg	supplier	alloy	Gold (Au)	7440-57-5		0.046	mg	2333	33
				supplier	alloy	Copper (Cu)	7440-50-8		603.590	mg	996714	437384
				supplier	alloy	Iron (Fe)	7439-89-6		0.278	mg	459	201
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.508	mg	838	369
				supplier	metallization	Nickel (Ni)	7440-02-0		1.197	mg	1977	867
Soft solder	Solder	16.405	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	15.667	mg	955014	11353
				supplier	solder	Silver (Ag)	7440-22-4		0.410	mg	24992	297
				supplier	solder	Tin (Sn)	7440-31-5		0.328	mg	19994	238
				supplier	wire	Aluminium (Al)	7429-90-5		0.232	mg	995708	168
Bonding wires	M-011 Other inorganic materials	0.233	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	4292	1
				supplier	Ribbon	Aluminium (Al)	7429-90-5		16.723	mg	1000000	12118
Encapsulation	M-011 Other inorganic materials	719.255	mg	supplier	mold compound	Silica, vitreous	60676-86-0		591.947	mg	823000	428947
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		50.348	mg	70000	36484
				supplier	mold compound	Phenol resin	9003-35-4		28.770	mg	40000	20848
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		21.578	mg	30000	15636
				supplier	mold compound	Antimony Trioxide	1309-64-4		8.631	mg	12000	6254
Connections coating	Solder	2.090	mg	supplier	mold compound	Brominated Epoxy Resin	40039-93-8		14.385	mg	20000	10424
				supplier	mold compound	Carbon black	1333-86-4		3.596	mg	5000	2606
				supplier	solder alloy	Tin (Sn)	7440-31-5		2.090	mg	1000000	1514