



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2022-07-03
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 Material 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/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
STTH12010TV1	H2DS*184R01F	A	64BA	2022-07-03
	Amount	UoM	Unit type	ST ECOPACK Grade
	27000	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		 life.augmented
Not Applicable	Not Applicable			
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel (Ni)	Copper Alloy	DM00648866	

Package Designator	Package Size	Nbr of instances	Shape	
Not Applicable	38.00,8.00,25.00	4	Not Applicable	
Comment	ISOTOP-DBC-R4-VIS			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 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 2020/363_March 2020	
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	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 19th March 2021			
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	1181.48	Die - Leadframe - insulator - Nut - Connection isotop - Connection	43759
Lead	187.01	soft solder	6926

QueryList : REACH-8th July 2021				
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	187.01	Soft solder	6926
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	187.01	Soft solder	934998

QueryList : Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present in the component :	Gold, Tin,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	H2DS*184R01F					
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	39.867	mg	supplier	die	Silicon(Si)	7440-21-3		38.048	mg	954372	1410
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.945	mg	23704	35
				supplier	metallisation	Gold(Au)	7440-57-5		0.055	mg	1380	2
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.260	mg	6522	10
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.018	mg	452	1
				supplier	passivation	Silicon oxide	7631-86-9		0.541	mg	13570	20
Leadframe	M-004 Copper and its alloys	8266.763	mg	supplier	alloy	Copper (Cu)	7440-50-8		8249.560	mg	997919	305539
				supplier	alloy	Phosphorus (P)	12185-10-3		8.893	mg	1076	329
				supplier	alloy	Nickel (Ni)	7440-02-0		8.310	mg	1005	308
Soft solder	Solder	200.010	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	187.009	mg	934999	6926
				supplier	solder	Tin(Sn)	7440-31-5		10.001	mg	50002	370
				supplier	solder	Silver(Ag)	7440-22-4		3.000	mg	14999	111
Insulator	M-010 Ceramics / glass	190.613	mg	supplier	ceramic	Nickel (Ni)	7440-02-0		2.288	mg	12003	85
				supplier	ceramic	Phosphorus (P)	12185-10-3		0.172	mg	902	6
				supplier	ceramic	Manganese (Mn)	7439-96-5		7.433	mg	38995	275
				supplier	ceramic	Titanium (Ti)	7440-32-6		0.782	mg	4103	29
				supplier	ceramic	Molybdenum oxide	1313-27-5		9.531	mg	50002	353
				supplier	ceramic	Alumina (Al2O3)	1344-28-1		170.407	mg	893995	6311
Screw	M-002 Other ferrous alloys, non-stainless steels	7360.556	mg	supplier	screw	Iron (Fe)	7439-89-6		7360.556	mg	1000000	272813
Nut	M-006 Nickel and its alloys	1061.980	mg	supplier	nut	Nickel (Ni)	7440-02-0		1061.980	mg	1000000	39333
Bonding wires	M-003 Aluminum and its alloys	3.025	mg	supplier	wire	Aluminium(Al)	7429-90-5		3.025	mg	1000000	112
Connection isotop	M-004 Copper and its alloys	4599.883	mg	supplier	connection	Copper (Cu)	7440-50-8		4598.783	mg	999761	170325
				supplier	connection coating	Nickel (Ni)	7440-02-0		1.032	mg	224	38
				supplier	connection coating	Phosphorus (P)	12185-10-3		0.068	mg	15	3
Encapsulation	M-011 Other inorganic materials	5169.690	mg	supplier	mold compound	Silica vitreous	60676-86-0		3618.783	mg	700000	134029
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		801.302	mg	155000	29678
				supplier	mold compound	Quartz	14808-60-7		258.485	mg	50000	9574
				supplier	mold compound	Phenol resin	9003-35-4		310.181	mg	60000	11488
				supplier	mold compound	Metal hydroxide	proprietary		155.091	mg	30000	5744
				supplier	mold compound	Carbon black	1333-86-4		25.848	mg	5000	957
Connections coating	M-006 Nickel and its alloys	107.613	mg	supplier	solder alloy	Nickel (Ni)	7440-02-0		107.613	mg	1000000	3986