Material declaration form

General Information			
IPC	1752	Version	2
Form type*	Distribute		
Sectionals*	Material information	Subsectionals*	A-D
	Manufacturing information	*: Required Field	

Supplier Information			
Company name*	STMicroelectronics	Response Date*	2023-11-24
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	ADGMaterial 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

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.

Signature Not Verified

Digitally signed by giovanni giacopello
Date: 2023.11.24 15:31:12 +01:00

Product				
Mfr item number	Mfr item name	Version	Manufacturing site	date
SCTHS250N120G3AG	T1CG*BRJNAV2	A	3068	2023-11-24
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	8050.00	mg	Each	ECOPACK® 2
Identity	**Authority**			
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 temperature	Number of reflow cycles		
Not Applicable	Not Applicable	Not Applicable		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Not Applicable	Silver (Ag)	Copper Alloy	DM00791633	
Package designator	Package size	Number of instances	Shape	
SMO-THO	18.80x28.00x4.10	4	Mixed	
Comment	STPAK			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 2015	**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	**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**
8(e)	8(e) - Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 25th Feb 2022			**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	0.509	die	63
Lead	15.834	soft solder	1967

QueryList : REACH-14th June 2023				**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	15.834	Soft solder	1967
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	15.834	Soft solder	954948

QueryList : Responsible metals sourcing	**Response**
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	**Tin,**

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update	**Response**
The Product does contain at least one of the substances listed in Chemical Control Act	false

QueryList : China GB 33372-2020 Limit standard for volatile organic compounds content in adhesives - 4 March 2020 application date 1st December 2020	**Response**
The product contains adhesives identified under GB 33372	false

Stockholm Convention Persistent Organic Pollutants	**Response**
Product is compliant with Stockholm Convention Persistent Organic Pollutants Annex I	true

QueryList : EUSRR Directive				**Response**
Product contains hazardous materials listed in EUSRR Annex II				True
The material present in the product is:				Lead
PFAS/PTFE Restriction				**Response**
Product contains Per- and Polyfluorinated Substance				False
BPA Restriction				**Response**
Product contains Bisphenol A (Isopropylidenediphenol)				False

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						**Mfr Item Name**	**T1CG*BRJNAV2**					
Homogeneous material	**Material group**	**Mass**	**Unit of measure**	**Level**	**Substance category**	**Substance**	**CAS**	**Exempt**	**Mass**	**Unit of measure**	**Concentration in homogeneous material (ppm)**	**Concentration in product (ppm)**
Dies	M-011 Other inorganic materials	14.940	mg	supplier	die	Silicium carbide	409-21-2		27.703	mg	928978	3439
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.505	mg	16934	63
				supplier	metallisation	Silicon(Si)	7440-21-3		0.060	mg	2012	7
				supplier	metallisation	Copper(Cu)	7440-50-8		0.069	mg	2314	9
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.433	mg	14520	54
				supplier	metallisation	Silver(Ag)	7440-22-4		0.443	mg	14855	55
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.053	mg	1777	7
				supplier	metallisation	Vanadium(V)	7440-62-2		0.014	mg	469	2
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.081	mg	2716	10
				supplier	passivation	Silicon oxide	7631-86-9		0.131	mg	4393	16
				supplier	polymer coating	polyimide	proprietary		0.329	mg	11032	41
Leadframe	M-004 Copper and its alloys	1890.261	mg	supplier	alloy	Copper(Cu)	7440-50-8		1885.586	mg	997527	234234
				supplier	alloy	Iron phosphide	26508-33-8		1.586	mg	839	197
				supplier	alloy	Iron(Fe)	7439-89-6		0.869	mg	460	108
				supplier	metallization	Silver (Ag)	7440-22-4		2.220	mg	1174	276
Die attach	M-011 Other inorganic materials	23.052	mg	supplier	tape	Silver(Ag)	7440-22-4		22.591	mg	980001	2806
				supplier	tape	Resin	proprietary		0.346	mg	15010	43
				supplier	tape	Amine	proprietary		0.115	mg	4989	14
Soft solder	Solder	16.581	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temperat	15.834	mg	954948	1967
				supplier	solder	Silver(Ag)	7440-22-4		0.415	mg	25029	52
				supplier	solder	Tin(Sn)	7440-31-5		0.332	mg	20023	41
Soft solder 2	Solder	1.017	mg	supplier	solder	Silver(Ag)	7440-22-4		0.814	mg	800393	101
				supplier	solder	Nickel(Ni)	7440-02-0		0.076	mg	74730	9
				supplier	solder	other	proprietary		0.127	mg	124877	16
Bonding wires	M-003 Aluminum and its alloys	0.521	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.521	mg	1000000	65
Encapsulation	M-011 Other inorganic materials	1956.747	mg	supplier	mold compound	Silica vitreous	60676-86-0		1467.560	mg	750000	182306
				supplier	mold compound	Silica	7631-86-9		195.675	mg	100000	24307
				supplier	mold compound	Epoxy resin	25068-38-6		195.675	mg	100000	24307
				supplier	mold compound	Phenol resin	29690-82-2		97.837	mg	50000	12154
Ceramic base		4132.000	mg	supplier	ceramic	Silicon Nitride	12033-89-5		319.817	mg	77400	39729
				supplier	metallization	Copper(Cu)	7440-50-8		3809.704	mg	922000	473255
				supplier	metallization	Silver (Ag)	7440-22-4		2.479	mg	600	308