



## 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*	2024-12-12
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	APMS Material Declaration champion
Representative phone*	Refer to Supplier Comment section	Representative email*	Refer to Supplier Comment section
Supplier comment	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty statement**

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**Legal statement**

Supplier acceptance*	Legal declaration*	Standard
true		

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	Manufacturing site	date
STWA60N035M9	TSWT*M968P5F	A	998G	2024-12-12
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	6100.00	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 temperature	Number of reflow cycles		
Not Applicable	Not Applicable	,		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM01096826	
Package designator	Package size	Number of instances	Shape	
SIP	15.80x21.00x5.00	3	Through-hole	
Comment	TO-247 LONG LEADS			

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		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 : ELV directive : 2000/53/EC amended 2020/363_March 2020		Response
1 - Product(s) meets EU ELV requirements without any exemptions		True
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)		False
Exemption Id.	Description	

QueryList : California Prop65 list, dated 29th December 2023			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	26.699	die - leadframe	4377

QueryList : REACH-7th November 2024				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
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				True
CategoryLevel_Name	CategoryLevel_Threshold	Amount in embedded article / Homogeneous material (mg)	Application - article / Homogeneous material	ppm in article /Homogeneous material



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 : EUSR Directive	Response
Product contains hazardous materials listed in EUSR Annex II	False

PFAS/PTFE Declaration	Response
The product is containing at least one of the following PFAS substance: Polytetrafluoroethylene,Thiophenium, Triphenylsulfonium nonaflate, Trifluoroacetic anhydride	False

BPA Declaration	Response
Product does not contain Bisphenol A (Isopropylidenediphenol)	True

Montreal Protocol	Response
Product does not contain Ozone Depleting Substances based on Annex I to Annex VII of EU REGULATION (EC) No 1005/2009	True

Environmental Protection Agency:Toxic Substances Control Act (TSCA). Section 6(h)	Response
Product does not contain Phenol, isopropylated, phosphate (3:1)	True



Material Composition Declaration :						Mfr Item Name	TSWT-M968P5F		6100.0000		7000000.0	1000000.0
note : Substance present with less 0.001mg will not be declared in this document												
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)
Die	M-011 Other inorganic materials	25.364	mg	supplier	die	Silicon(Si)	7440-21-3		23.958	mg	944567	3926
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.476	mg	18767	78
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.141	mg	5559	23
				supplier	metallisation	Silver(Ag)	7440-22-4		0.116	mg	4573	19
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.136	mg	5362	22
				supplier	metallisation	Vanadium(V)	7440-62-2		0.011	mg	434	2
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.080	mg	3154	13
				supplier	passivation	Silicon oxide	7631-86-9		0.229	mg	9029	38
				supplier	polymer coating	polyimide	proprietary		0.217	mg	8555	36
				supplier	alloy	Copper(Cu)	7440-50-8		4022.317	mg	991628	659396
Leadframe	M-004 Copper and its alloys	4056.277	mg	supplier	alloy	Iron phosphide	26508-33-8		3.383	mg	834	555
				supplier	alloy	Iron(Fe)	7439-89-6		1.853	mg	457	304
				supplier	metallization	Nickel (Ni)	7440-02-0		26.558	mg	6547	4354
				supplier	metallization	Phosphorus (P)	7723-14-0		2.166	mg	534	355
				supplier	solder	Tin(Sn)	7440-31-5		6.003	mg	649957	984
Soft solder	Solder	9.236	mg	supplier	solder	Silver(Ag)	7440-22-4		2.309	mg	250000	379
				supplier	solder	Antimony (Sb)	7440-36-0		0.924	mg	100043	151
				supplier	wire	Aluminium (Al)	7429-90-5		4.156	mg	1000000	681
Bonding wires	M-003 Aluminum and its alloys	4.156	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.154	mg	1000000	25
Bonding wires 2	M-003 Aluminum and its alloys	0.154	mg	supplier	wire	Aluminium (Al)	7429-90-5		1426.654	mg	760000	233878
Encapsulation	M-011 Other inorganic materials	1877.176	mg	supplier	mold compound	Silica vitreous	60676-86-0		290.962	mg	155000	47699
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		56.315	mg	30000	9232
				supplier	mold compound	Phenolic resin	9003-35-4		93.859	mg	50000	15387
				supplier	mold compound	Metal hydroxide	proprietary		9.386	mg	5000	1539
				supplier	mold compound	Carbon black	1333-86-4		127.637	mg	1000000	20924
Connections coating	Solder	127.637	mg	supplier	solder alloy	Tin (Sn)	7440-31-5					