



## Material declaration form

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

Supplier Information			
Company name*	STMicroelectronics	Response Date*	2024-09-20
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*	gregorio duro	Representative title	MDRF 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**

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

**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.			



Product				
Mfr item number	Mfr item name	Version	Manufacturing site	date
STPSC20G065WLY	BF02*RYZ203L	A	998G	2024-09-20
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	5900.00	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	DM01045473	
Package designator	Package size	Number of instances	Shape	
SIP	21X15.8X5	2	Through-hole	
Comment	DO247 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	26.418	die - leadframe	4478

QueryList : REACH-27th June 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 :	<b>Gold, Tin,</b>

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	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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	BF02*RYZ203L		5900.0000		6000000.0	1000000.0	
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	3.224	mg	California 65	die	Silicium carbide	409-21-2		3.051	mg	946340	516	
					supplier	metallisation	Aluminium(Al)	7429-90-5		0.034	mg	10546	6
					supplier	metallisation	Gold(Au)	7440-57-5		0.005	mg	1551	1
					supplier	metallisation	Nickel(Ni)	7440-02-0		0.047	mg	14578	8
					supplier	metallisation	Silver(Ag)	7440-22-4		0.066	mg	20471	11
					supplier	metallisation	Titanium(Ti)	7440-32-6		0.004	mg	1241	1
					supplier	metallisation	Vanadium(V)	7440-62-2		0.002	mg	620	0
					supplier	polymer coating	polyimide	proprietary		0.015	mg	4653	3
					supplier	alloy	Copper(Cu)	7440-50-8		3750.011	mg	991205	635595
Leadframe	M-004 Copper and its alloys	3783.287	mg		supplier	alloy	Iron phosphide	26508-33-8		3.154	mg	834	535
					supplier	alloy	Iron(Fe)	7439-89-6		1.727	mg	456	293
					supplier	metallization	Nickel (Ni)	7440-02-0		26.371	mg	6970	4470
					supplier	metallization	Phosphorus (P)	7723-14-0		2.024	mg	535	343
					supplier	alloy	Iron(Fe)	7439-89-6		1.727	mg	456	293
Soft solder	Solder	1.388	mg	supplier	solder	Tin(Sn)	7440-31-5		0.902	mg	649856	153	
					supplier	solder	Silver(Ag)	7440-22-4		0.347	mg	250000	59
					supplier	solder	Antimony (Sb)	7440-36-0		0.139	mg	100144	24
Bonding wires	M-003 Aluminum and its alloys	1.231	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.231	mg	1000000	209	
Encapsulation	M-011 Other inorganic materials	2104.673	mg	supplier	mold compound	Silica vitreous	60676-86-0		1473.271	mg	700000	249707	
					supplier	mold compound	Epoxy Resin	29690-82-2		294.654	mg	140000	49941
					supplier	mold compound	phenol resin	proprietary		210.467	mg	100000	35672
					supplier	mold compound	Fire retardant	proprietary		105.234	mg	50000	17836
					supplier	mold compound	Carbon black	1333-86-4		21.047	mg	10000	3567
Connections coating	Solder	6.197	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.197	mg	1000000	1050	