



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*	2024-09-26
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 : 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.			



Product				
Mfr item number	Mfr item name	Version	Manufacturing site	date
STH345N6F7-2	T4(9*OD6KBFZ	A	3068	2024-09-26
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	1380.00	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 temperature	Number of reflow cycles		
1	245	3		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM01099966	
Package designator	Package size	Number of instances	Shape	
SIP	10.20x9.15x4.50	2	Gull wing	
Comment	H2PAK HC 2-3 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		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 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	2.784	die - leadframe	2017
Lead	10.065	soft solder	7293

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				False
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	10.065	Soft solder	7293
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	10.065	Soft solder	954934



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 :	Cobalt, Tin, Tungsten,

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	True

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 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	T4(9°OD6KBFZ					
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	14.714	mg	supplier	die	Silicon(Si)	7440-21-3		13.882	mg	943455	10058
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.322	mg	21884	233
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.194	mg	13185	141
				supplier	metallisation	Silver(Ag)	7440-22-4		0.094	mg	6388	68
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.045	mg	3058	33
				supplier	metallisation	Tungsten(W)	7440-33-7		0.081	mg	5505	59
				supplier	metallisation	Vanadium(V)	7440-62-2		0.009	mg	612	7
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.008	mg	544	6
				supplier	passivation	Silicon oxide	7631-86-9		0.079	mg	5369	57
				supplier	alloy	Copper(Cu)	7440-50-8		842.889	mg	992103	610789
Leadframe	M-004 Copper and its alloys	849.598	mg	supplier	alloy	Cobalt(Co)	7440-48-4		2.372	mg	2792	1719
				supplier	alloy	Copper phosphorus	12517-41-8		1.694	mg	1994	1228
				supplier	metallization	Nickel (Ni)	7440-02-0		2.590	mg	3049	1877
				supplier	metallization	Phosphorus (P)	7723-14-0		0.053	mg	62	38
				supplier	metallization	Lead(Pb)	7439-92-1	7a-Lead in high melting temperat	10.065	mg	954934	7293
Soft solder	Solder	10.540	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temperat	10.065	mg	954934	7293
				supplier	solder	Silver(Ag)	7440-22-4		0.264	mg	25047	191
				supplier	solder	Tin(Sn)	7440-31-5		0.211	mg	20019	153
Bonding wires	M-003 Aluminum and its alloys	9.850	mg	supplier	wire	Aluminium (Al)	7429-90-5		9.850	mg	1000000	7138
Bonding wires 2	M-003 Aluminum and its alloys	0.151	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.150	mg	993377	109
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	6623	1
				supplier	wire	Silica vitreous	60676-86-0		344.214	mg	823001	249430
Encapsulation	M-011 Other inorganic materials	418.243	mg	supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		29.277	mg	70000	21215
				supplier	mold compound	Phenol resin	9003-35-4		16.730	mg	40001	12123
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		12.547	mg	29999	9092
				supplier	mold compound	Antimony trioxide	1309-64-4		5.019	mg	12000	3637
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		8.365	mg	20000	6062
				supplier	mold compound	Carbon black	1333-86-4		2.091	mg	4999	1515
Connections coating	Solder	76.904	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		76.904	mg	1000000	55728