



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*	2023-11-02
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.			



Product				
Mfr item number	Mfr item name	Version	Manufacturing site	date
STPS30M80CT	H1DZ*Z90S02L	A	3068	2023-11-02
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	1950.00	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	,		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00624193	
Package designator	Package size	Number of instances	Shape	
SIP	10.00x9.10x4.50	3	Through-hole	
Comment	TO 220 AB NON ISOL			



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	6.042	die - leadframe	3098
Lead	5.826	soft solder	2988

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	5.83	Soft solder	2988
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	5.83	Soft solder	954925

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 :		Gold, 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		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
		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	H1DZ-Z90S02L					
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	11.237	mg	supplier	die	Silicon(Si)	7440-21-3		10.885	mg	968676	5581
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.068	mg	6051	35
				supplier	metallisation	Gold(Au)	7440-57-5		0.064	mg	5695	33
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.123	mg	10946	63
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.015	mg	1335	8
				supplier	metallisation	Tungsten(W)	7440-33-7		0.016	mg	1424	8
				supplier	passivation	Silicon oxide	7631-86-9		0.066	mg	5873	34
				supplier	alloy	Copper(Cu)	7440-50-8		1251.376	mg	993909	641731
Leadframe	M-004 Copper and its alloys	1259.045	mg	supplier	alloy	Iron(Fe)	7439-89-6		1.253	mg	995	643
				supplier	alloy	Iron phosphide	26508-33-8		0.376	mg	299	193
				supplier	metallization	Nickel (Ni)	7440-02-0		5.919	mg	4701	3035
				supplier	metallization	Phosphorus (P)	7723-14-0		0.121	mg	96	62
				supplier	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temperat	5.826	mg	954925	2988
Soft solder	Solder	6.101	mg	supplier	solder	Silver(Ag)	7440-22-4		0.153	mg	25078	78
				supplier	solder	Tin(Sn)	7440-31-5		0.122	mg	19997	63
				supplier	wire	Aluminium (Al)	7429-90-5		4.733	mg	1000000	2427
Bonding wires	M-003 Aluminum and its alloys	4.733	mg	supplier	wire	Aluminium (Al)	7429-90-5		4.733	mg	1000000	2427
Encapsulation	M-011 Other inorganic materials	662.522	mg	supplier	mold compound	Silica vitreous	60676-86-0		463.765	mg	699998	237828
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		102.691	mg	155000	52662
				supplier	mold compound	Quartz	14808-60-7		33.126	mg	50000	16988
				supplier	mold compound	Phenol resin	9003-35-4		39.751	mg	60000	20385
				supplier	mold compound	Metal hydroxide	21645-51-2		19.876	mg	30001	10193
				supplier	mold compound	Carbon black	1333-86-4		3.313	mg	5001	1699
Connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3263