Material Data Declaration Sheet - v003

Version 2.0

Supplier Information

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Response Date *	2025-04-06		

Supplier Comments

Intel 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 Intel completes this form. Intel acknowledges that Customer will rely on this certification in determining the compliance of its products. Customer acknowledges that Intel may have relied on information provided by others in completing this form, and that Intel may not have independently verified such information. However, in situations where Intel has not independently verified information provided by others, Intel 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 Customer and the Intel 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 Intel's liability and the Customer's remedies for issues that arise regarding information the Intel provides in this form. In the absence of such written agreement, the warranty rights and/or remedies of Intel's Standard Terms and Conditions of Sale applicable to such part shall apply.

Product(s)

Product Family Name:

Requester Item Number	Item Number *	Description	Effective Date *	Mass *	UoM*	Comment
	A5EC013BB32A	FPGA IC A5E013BXXXX VPBGA1591	2025-04-06	1.75	g	

Product Part(s)

ID*	Description	Effective Date*	Units*	% of Product Mass	Comment	
Capacitor	Capacitor	2025-04-06	11	0.13		
Die	Die	2025-04-06	1	7.076		
Solder Spheres	Solder Spheres	2025-04-06	1	22.63		
SOLDER-PASTE 1	SOLDER-PASTE	2025-04-06	1	0.80		
SOLDER-PASTE 2	SOLDER-PASTE	2025-04-06	1	0.57		
Substrate	Substrate	2025-04-06	1	68.23		
Underfill	Underfill	2025-04-06	1	0.57		

Declaration

LHPLA	This product is Low Halogen (Components): Applies only to brominated and chlorinated flame retardants (BFRs/CFRs) and PVC in the final product. The replacement of halogenated flame retardants may not be better for the environment. Intel Components as well as purchased components on the finished assembly meet the joint JEDEC/ECA JS-709B requirement.	True
LHPWB	This product is Low Halogen (PCB): Applies Br/Cl in the PCB Laminate. The PCB / Substrate meet IEC 61249-2-21 requirements. The replacement of halogenated flame retardants may not be better for the environment	True
UKREACH-0620	Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH	False
UKREACH-0620	Product(s) is obsolete, no information is available	False
UKREACH-0620	Product(s) is unknown, no information is available	False
EUROHS-1506	Product(s) does not meet EU RoHS requirements and is not under exemptions	False
EUROHS-1506	Product(s) is obsolete, No Information is Available	False
EUROHS-1506	Product(s) is unknown, no information is available	False
EUROHS-1506	Product(s) Meets EU RoHS Requirements by Application of the Selected Exemption(s)	False
EUROHS-1506	Product(s) Meets EU RoHS Requirements Without Any Exemptions	True

Signature

Intel Product Ecology	C=US, E=productecology@intel.com, OU="", O=Intel Corporation, CN=Intel Product Ecology

Part ID	Description		# of Units	Part Mass %
Capacitor	Capacitor		11	0.13

Homogenous Material Name	Material Class ID	HM Mass UoM	HM Mass Value	Substance Group	Substance Identity	Substance	Substance Mass UoM	Substance Mass Value	Exemption
Ceramic		mg	0.139		1304-28-5	Barium Oxide	ppm	600000.00	
						Misc	ppm	100000.00	
					13463-67-7	Titanium dioxide	ppm	300000.00	
Copper alloys		mg	0.029		7440-50-8	Copper	ppm	1000000.00	
Glass		mg	0.003	00075	-	Proprietary	ppm	187500.00	
					7631-86-9	Silicon Dioxide	ppm	812500.00	
Nickel and Nickel alloys		mg	0.009	00031	7440-02-0	Nickel	ppm	1000000.00	
Nickel plating		mg	0.009	00031	7440-02-0	Nickel	ppm	1000000.00	
Tin plating		mg	0.011		7440-31-5	Tin	ppm	1000000.00	

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Part ID	Description		# of Units	Part Mass %
Die	Die		1	7.076

Homogenous Material Name	Material Class ID	HM Mass UoM	HM Mass Value	Substance Group	Substance Identity	Substance	Substance Mass UoM	Substance Mass Value	Exemption
Die Silicon Material (Generic)		massPercent	100.000	00193	143907-02-2	Poly(oxy-1,2-ethanediyl), α,α',α'',α'''-(oxydi-3,1,2-	ppm	14.00	
						Proprietary Doped Silicon	ppm	999986.00	

Part ID	Description		# of Units	Part Mass %
Solder Spheres	Solder Spheres		1	22.63

Homogenous Material Name	Material Class ID	HM Mass UoM	HM Mass Value	Substance Group	Substance Identity	Substance	Substance Mass UoM	Substance Mass Value	Exemption
ECO SOLDER BALL S #7097 0.4mm		mg	396.159		7440-50-8	Copper	ppm	5000.00	
					7440-22-4	Silver	ppm	40000.00	
					7440-31-5	Tin	ppm	955000.00	

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Part ID	Description		# of Units	Part Mass %
SOLDER-PASTE 1	SOLDER-PASTE		1	0.80

Homogenous Material Name	Material Class ID	HM Mass UoM	HM Mass Value	Substance Group	Substance Identity	Substance	Substance Mass UoM	Substance Mass Value	Exemption
Copper		mg	0.042		7440-50-8	Copper	ppm	1000000.00	
Organic acid		mg	0.420		110-99-6	Acid	ppm	1000000.00	
Organic amine		mg	1.120		670-96-2	1H-Imidazole, 2-phenyl-	ppm	1000000.00	
Rosin		mg	1.820		65997-05-9	Rosin	ppm	1000000.00	
Silver		mg	0.252		7440-22-4	Silver	ppm	1000000.00	
Solvent		mg	1.960		112-59-4	2-((2-Hexyloxy)ethoxy) Ethanol	ppm	1000000.00	
Thixotropic agent		mg	0.280		123-26-2	Octadecanamide, N,N'-1,2-ethanediylbis[12-hydroxy-	ppm	1000000.00	
Tin		mg	8.106		7440-31-5	Tin	ppm	1000000.00	

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Part ID	Description		# of Units	Part Mass %
SOLDER-PASTE 2	SOLDER-PASTE		1	0.57

Homogenous Material Name	Material Class ID	HM Mass UoM	HM Mass Value	Substance Group	Substance Identity	Substance	Substance Mass UoM	Substance Mass Value	Exemption
Alpha-Terpineol		mg	0.110		98-55-5	3-Cyclohexene-1-methanol, .alpha.,.alpha.,4-trimethyl-	ppm	1000000.00	
Copper		mg	0.045		7440-50-8	Copper	ppm	1000000.00	
Organic acid		mg	0.088		110-99-6	Acid	ppm	1000000.00	
Organic amine		mg	0.191		65605-36-9	Poly oxy ethylene diam	ppm	1000000.00	
Organic amine 2		mg	0.105		25214-63-5	1,2-Ethanediamine, polymer with 2-methyloxirane	ppm	1000000.00	
Polymer		mg	0.132		25322-68-3	Polyethylene glycol	ppm	1000000.00	
Silver		mg	0.089		7440-22-4	silver	ppm	1000000.00	
Solvent		mg	0.143		1559-36-0	Diethylene glycol-2-ether	ppm	1000000.00	
Solvent 2		mg	0.099		122-99-6	2-phenoxyethanol	ppm	1000000.00	
Surfactant		mg	0.160		26635-93-8	Polyoxyrthylene Alkylamine	ppm	1000000.00	
Surfactant 2		mg	0.072		1338-39-2	Sorbitan, monododecanoate	ppm	1000000.00	
Tin		mg	8.766		7440-31-5	Tin	ppm	1000000.00	

Part ID	Description		# of Units	Part Mass %
Substrate	Substrate		1	68.23

Homogenous Material Name	Material Class ID	HM Mass UoM	HM Mass Value	Substance Group	Substance Identity	Substance	Substance Mass UoM	Substance Mass Value	Exemption
1st level interconnect		mg	5.224		7440-50-8	Copper	ppm	1902.54	
					7440-57-5	Gold	ppm	6283.31	
				00031	7440-02-0	Nickel	ppm	338495.77	
					7440-05-03	Pd	ppm	21039.29	
					7440-31-5	Tin	ppm	632279.084	
2nd level interconnect		mg	12.816		7440-57-5	Gold	ppm	18087.27	
				00031	7440-02-0	Nickel	ppm	974401.043	
					7440-05-03	Pd	ppm	7511.68	
Buildup Material		mg	408.332			Inorganic fillers	ppm	380000.00	
						Organic resin content	ppm	620000.00	
Core Material		mg	691.711		65997-17-3	Fibrous-Glass-Wool	ppm	139534.88	
						Inorganic fillers	ppm	616279.070	
						Organic resin content	ppm	244186.047	
Plug material		mg	29.632			Inorganic fillers	ppm	600000.00	
						Organic resin content	ppm	400000.00	
Solder Resist		mg	46.845			Inorganic fillers	ppm	200000.00	
						Organic resin content	ppm	800000.00	

Part ID	Description		# of Units	Part Mass %
Underfill	Underfill		1	0.57

Homogenous Material Name	Material Class ID	HM Mass UoM	HM Mass Value	Substance Group	Substance Identity	Substance	Substance Mass UoM	Substance Mass Value	Exemption
XS8410-428ND		mg	10.000		25068-38-6	(CHLOROMETHYL)OXIRANE, 4,4'-(1-	ppm	6100.00	
					27610-48-6	6-glycidyloxynapht-1-yl oxymethyloxirane	ppm	35000.00	
						Additives	ppm	8700.00	
						Amine type hardener	ppm	85000.00	
					9003-36-5	FORMALDEHYDE, POLYMER WITH (CHLOROMETHYL)OXIRANE	ppm	190000.00	
					603-35-0	Phosphine, triphenyl-	ppm	1900.00	
					60676-86-0	Silica, Vitreous	ppm	673300.00	