



Product Material Declaration Datasheet

Issue Date: 30th May, 2019

Products: Indy RS1000 SIP
Impinj Part Number: IPJ-RS1000-GX
Impinj Part Number: IPJ-RS1000-EU

Summary:

RoHS Indy packaged products, supplied by Impinj, Inc., are RoHS compliant based upon the analysis results. Since all part numbers within these families meet the Directive 2002/95/EC (RoHS) and 2011/65/EU (RoHS2), special part numbers are not required.

RoHS Detail: Table 1 identifies the environmentally banned substances related to the Directive 2002/95/EC (RoHS), and 2011/65/EU (RoHS2). Impinj products do not intentionally contain these substances beyond trace element amounts.

TABLE 1

Substances / Compounds	Weight (mg)	PPM	Analysis
Hexavalent Chromium and Compounds	0	<1000	MSDS/Supplier
Lead and Lead Compounds	0	<1000	MSDS/Supplier
Mercury and Mercury Compounds	0	<1000	MSDS/Supplier
Polybrominated Biphenyls (PBB)	0	<1000	MSDS/Supplier
Polybrominated Diphenylethers (PBDE)	0	<1000	MSDS/Supplier
Bis(2-ethylhexyl) phthalate (DEHP)	0	<1000	MSDS/Supplier
Butyl benzyl phthalate (BBP)	0	<1000	MSDS/Supplier
Dibutyl phthalate (DBP)	0	<1000	MSDS/Supplier
Diisobutyl phthalate (DIBP)	0	<1000	MSDS/Supplier
Cadmium and Cadmium Compounds	0	<100	MSDS/Supplier



Additional Substances not addressed by RoHS Directives:

Table 2 identifies additional substances currently NOT incorporated into the Indy packaged product by design. This list includes items that are not intentionally added, but may not list impurities or trace elements within individual components of any substance.

TABLE 2

Additional Substances/Compounds	PPM	Analysis
Other Specific Phthalates (DINP, DIDP, DNOP, DNHP)	Not Detected	MSDS/Supplier
Halogen	Not Detected	MSDS/Supplier
Halogen-Fluorine (F)	Not Detected	MSDS/Supplier
Halogen-Bromine (Br)	Not Detected	MSDS/Supplier
Halogen-Iodine (I)	Not Detected	MSDS/Supplier
Monobromobiphenyl	Not Detected	MSDS/Supplier
Dibromobiphenyl	Not Detected	MSDS/Supplier
Tribromobiphenyl	Not Detected	MSDS/Supplier
Tetrabromobiphenyl	Not Detected	MSDS/Supplier
Pentabromobiphenyl	Not Detected	MSDS/Supplier
Hexabromobiphenyl	Not Detected	MSDS/Supplier
Heptabromobiphenyl	Not Detected	MSDS/Supplier
Octabromobiphenyl	Not Detected	MSDS/Supplier
Nonabromobiphenyl	Not Detected	MSDS/Supplier
Decabromobiphenyl	Not Detected	MSDS/Supplier
Monobromodiphenyl ether	Not Detected	MSDS/Supplier
Dibromodiphenyl ether	Not Detected	MSDS/Supplier
Tribromodiphenyl ether	Not Detected	MSDS/Supplier
Tetrabromodiphenyl ether	Not Detected	MSDS/Supplier
Pentabromodiphenyl ether	Not Detected	MSDS/Supplier
Hexabromodiphenyl ether	Not Detected	MSDS/Supplier
Heptabromodiphenyl ether	Not Detected	MSDS/Supplier
Octabromodiphenyl ether	Not Detected	MSDS/Supplier
Nonabromodiphenyl ether	Not Detected	MSDS/Supplier
Perfluorooctane Sulfonates (PFOS)	0	MSDS/Supplier
Ozone Depleting Substances	0	MSDS/Supplier
Polychlorinated Biphenyls (PCB)	0	MSDS/Supplier
Polychlorinated Napthalenes (PCN)	0	MSDS/Supplier
Formaldehyde	0	MSDS/Supplier
Shortchain Chlorinated Paraffins (SCCP)	0	MSDS/Supplier
Tributyl Tin (TBT) and Triphenyl Tin (TPT)	0	MSDS/Supplier
Tributyl Tin Oxide (TBTO)	0	MSDS/Supplier
Decabromodiphenylether (DBDE)	0	MSDS/Supplier
Polychlorinated terphenyls (PCT)	0	MSDS/Supplier
Chlorinated Organic Compounds	0	MSDS/Supplier
Brominated Organic Compounds	0	MSDS/Supplier
Asbestos	0	MSDS/Supplier
Azo Compounds	0	MSDS/Supplier



Formaldehyde	0	MSDS/Supplier
Polyvinyl Chloride (PVC) and PVC Blends	0	MSDS/Supplier
Beryllium Oxide	0	MSDS/Supplier
Beryllium Copper	0	MSDS/Supplier
Hydrofluorocarbon (HFC)	0	MSDS/Supplier
Perfluorocarbon (PFC)	0	MSDS/Supplier
Specific Benzotriazole	0	MSDS/Supplier
Antimony (Sb)	0	MSDS/Supplier
Fluorinated Compounds	<1.0	MSDS/Supplier
Halogen-Chlorine (Cl)	<450	MSDS/Supplier
Flame Retardent Substances	Not Detected	MSDS/Supplier



Table 3 identifies substances currently incorporated into the Indy packaged product. This list includes all items that are intentionally added, and may not list impurities or trace elements within individual components of any substance.

TABLE 3

Incorporated Substances/Compounds	PPM	Analysis
Wafer		
Zinc	8	MSDS/Supplier
Nickel	11	MSDS/Supplier
Cobalt	16	MSDS/Supplier
Copper	20	MSDS/Supplier
Phosphorus	24	MSDS/Supplier
Tungsten	286	MSDS/Supplier
Titanium	331	MSDS/Supplier
Aluminum	3590	MSDS/Supplier
Silicon	995300	MSDS/Supplier
R500/R2000 Lead Frame		
Phosphorous	150 – 1500	MSDS/Supplier
Zinc	500 – 2000	MSDS/Supplier
Silver	5000 – 15000	MSDS/Supplier
Iron	21000 – 26000	MSDS/Supplier
Copper	Balance	MSDS/Supplier
R1000 Lead Frame		
Phosphorous	300	MSDS/Supplier
Zinc	1500	MSDS/Supplier
Iron	23000	MSDS/Supplier
Copper	Balance	MSDS/Supplier
Lead Frame Plating		
Tin	1000000	MSDS/Supplier
Mold Compound		
Carbon (Black)	1000 – 5000	MSDS/Supplier
Epoxy Resin	10000 – 50000	MSDS/Supplier
Phenol Resin	10000 – 50000	MSDS/Supplier
Silica Fused	850000 – 950000	MSDS/Supplier
Die Attach		
Organic Peroxide	1000 – 10000	MSDS/Supplier
Dicyandiamide	1000 – 10000	MSDS/Supplier
Epoxy Resin A	10000 – 50000	MSDS/Supplier
Diluent A	10000 – 50000	MSDS/Supplier
Hardener	10000 – 50000	MSDS/Supplier
Epoxy Resin B	50000 – 100000	MSDS/Supplier
Diluent B	50000 – 100000	MSDS/Supplier
Silver Powder	700000 - 900000	MSDS/Supplier
Bond Wire		
Au	≥990000	MSDS/Supplier



Conclusion:

Impinj will continue to follow all legal requirements regarding environmental legislation. Impinj will also support customers "green" programs as a leader in RFID products.

John Quist
Sr. Vice President of Quality and Operations
Impinj, Inc.

A handwritten signature in black ink that reads "John Quist". The signature is written in a cursive, flowing style.