



Product Material Declaration Datasheet

Issue Date: 8 February 2018

Products: MonzaX-2K Dura Packaged Product Impinj Part Number: IPJ-P6001-Q2AT
MonzaX-8K Dura Packaged Product Impinj Part Number: IPJ-P6005-X2AT

Summary:

RoHS MonzaX Packaged product, supplied by Impinj, Inc., is RoHS compliant, based upon the analysis results. Since all part numbers within these families meet the Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS2), and 2015/863 (RoHS 3), special part numbers are not required.

REACH The Products listed do not, to our current knowledge, contain substances above the legal threshold that are on the Candidate List of Substances of Very High Concern (SVHC). Our company's intention is that all products sold to our EU and EEA customers by our legal entities in Europe are compliant with REACH regulatory requirements.

Detail:

RoHS Table 1 identifies the environmentally banned substances related to the Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS2), and 2015/863 (RoHS 3). 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

REACH

Our Company's intention is that all products sold to our EU and EEA customers by Our Company legal entities in Europe (2) are compliant with REACH regulatory requirements.

REACH requires registration for individual substances(1) (on their own or in preparations(3)) greater than one metric ton per year produced or imported.

Each importer is responsible for his own compliance with REACH; and Our Company products bought from a supplier outside of EU/EEA may not necessarily be compliant with REACH requirements.

Most of the products we sell do not, to our current knowledge, contain substances above the legal threshold (4) that are on the Candidate List of Substances of Very High Concern (SVHC substances) as published on the ECHA website on 15 January 2018. For those few products that contain an SVHC, we notify our direct customers and distributors to inform them of the presence of an SVHC and our plans to address the issue.

To fully understand the obligations that you as our customer have under REACH, we recommend that you consult the REACH website at http://echa.europa.eu/home_en.asp

- (1) Substance: a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition (REACH, Article 3.1)
- (2) This includes the Our Company legal entities in the EU/EEA, as well as Our Company de Nemours International Sàrl and Our Company International Operations Sàrl
- (3) Preparation: means a mixture or solution composed of two or more substances (REACH, Article 3.2)
- (4) Inclusion of a substance on the Candidate List may impose immediate legal obligations upon companies whose chemical products or articles contain more than 0.1 wt% of the substances. You can find more information about these obligations on the ECHA website: http://echa.europa.eu/chem_data/authorisation_process/candidate_list_obligations_en.asp

Additional Substances not addressed by RoHS or REACH Directives:

Table 2 identifies additional substances currently NOT incorporated into the Monza X 2k/8k Dura 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 Monza X family product. This list includes all items that are intentionally added, and may not list impurities or trace elements within individual components of any substance.

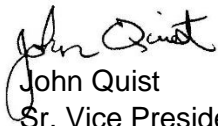
TABLE 3

Incorporated Substances/Compounds	PPM	Analysis
Wafer		
Silicon	> 950000	MSDS/Supplier
Aluminum	< 20000	MSDS/Supplier
Tungsten	< 20000	MSDS/Supplier
Silicon Oxide	< 5000	MSDS/Supplier
Silicon Nitride	< 5000	MSDS/Supplier
Titanium	< 40	MSDS/Supplier
Cobalt	< 20	MSDS/Supplier
Arsenic	< 2	MSDS/Supplier
Lead Frame and Plating		
Copper	924810 - 966890	MSDS/Supplier
Nickel	29750 – 58860	MSDS/Supplier
Silicon	2480 – 11770	MSDS/Supplier
Magnesium	500 – 2940	MSDS/Supplier
Palladium	200 – 780	MSDS/Supplier
Gold	100 - 490	MSDS/Supplier
Silver	80 - 350	MSDS/Supplier
Mold Compound		
Silica (Amorphous) A	700000 – 900000	MSDS/Supplier
Silica (Amorphous) B	100000 – 200000	MSDS/Supplier
Phenol Resin	10000 – 50000	MSDS/Supplier
Epoxy Resin	10000 – 50000	MSDS/Supplier
Carbon (Black)	100 – 10000	MSDS/Supplier
Silica (Crystal)	≤100	MSDS/Supplier
Die Attach		
Ethene, tetrafluoro-, homopolymer	300000 – 600000	MSDS/Supplier
Epoxy resin	100000 – 300000	MSDS/Supplier
Epoxy resin	100000 – 200000	MSDS/Supplier
2,6-Diglycidyl phenyl allyl ether oligomer	10000 – 100000	MSDS/Supplier
Substituted imidazole	10000 – 50000	MSDS/Supplier
Bond Wire		
Au	≥990000	MSDS/Supplier



Carrier Tape		
Polycarbonate	1000000	MSDS/Supplier
Cover Tape		
Plastic Film Tape	1000000	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.