

# Material Composition for SX-4428A

| Sub-component           | Material               | % of Total Mass | Substance Name   | CAS #         | Substance Mass (grams) | Special Classification |
|-------------------------|------------------------|-----------------|--|---------------|------------------------|------------------------|
| Bottom Housing          | PBT                    | 6.95%           | PBT  | 26062-94-2    | 3.57E+00               |                        |
|                         |                        |                 | Glass fiber  | 65997-17-3    | 1.65E+00               |                        |
|                         |                        |                 | Antimony oxide   | 1309-64-4     | 2.75E-01               |                        |
|                         |                        | Glass fibre     | 3.76%  | Quartz (SiO2) | 14808-60-7             | 2.98E+00               |
| Top lid                 | PBT                    | 10.91%          | PBT  | 26062-94-2    | 5.61E+00               |                        |
|                         |                        |                 | Fiberglass   | 65997-17-3    | 2.59E+00               |                        |
|                         |                        |                 | Antimony oxide   | 1309-64-4     | 4.31E-01               |                        |
|                         |                        | Glass fibre     | 3.81%  | Quartz (SiO2) | 14808-60-7             | 3.01E+00               |
| Concentrator            | Concentrator           | 2.38%           | Nickel   | 7440-02-0     | 9.04E-01               |                        |
|                         |                        |                 | Silicon  | 7440-21-3     | 6.59E-01               |                        |
|                         |                        |                 | Iron   | 7439-89-6     | 3.10E-01               |                        |
|                         |                        |                 | Manganese  | 7439-96-5     | 9.42E-03               |                        |
|                         |                        |                 | Carbon   | 7440-44-0     | 3.77E-04               |                        |
| PCB assembly            | PCB material           | 1.30%           | GF-Fibre   |               | 7.21E-01               |                        |
|                         |                        |                 | Phenol, 4,4' bis polymer with oxirane & 4,4 methylethylidene bis | 26265-08-7    | 3.09E-01               |                        |
|                         | Copper material        | 0.01%           | Copper   | 7440-50-8     | 9.30E-03               |                        |
|                         | Capacitor ceramic chip | 0.01%           | Barium-Titanium-trioxide   | 12047-27-7    | 9.20E-03               |                        |
|                         |                        |                 | Misc. No to declare  |               | 8.00E-04               |                        |
|                         | Hall Sensor            | 0.11%           | Copper   | 7440-50-8     | 3.38E-02               |                        |
|                         |                        |                 | Phenol, 4,4' bis polymer with oxirane & 4,4 methylethylidene bis | 26265-08-7    | 5.52E-02               |                        |
|                         | Solder PB free         | 0.13%           | Tin  | 7440-31-5     | 9.55E-02               |                        |
|                         |                        |                 | Silver   | 7440-22-4     | 3.80E-03               |                        |
|                         |                        |                 | Copper   | 7440-50-8     | 7.00E-04               |                        |
| Wire harness            | Wire                   | 3.66%           | Copper   | 7440-40-8     | 2.63E+00               |                        |
|                         |                        |                 | Polyvinylchloride  | 9002-86-2     | 2.66E-01               |                        |
|                         | Terminal pin           | 3.81%           | Copper   | 7440-40-8     | 2.89E+00               |                        |
|                         |                        |                 | Tin  | 7723-31-5     | 1.16E-01               |                        |
|                         |                        | Phosphorus      | 7723-14-0  | 4.63E-03      |                        |                        |
| Tubing Irrax            | Polyolefin Resin       | 1.28%           | Polyethylene   | 9002-88-4     | 1.01E+00               |                        |
|                         | Connector              | 3.25%           | PBT  | 26062-94-2    | 2.52                   |                        |
|                         |                        |                 | Misc. not to declare   | N/A           | 5.15E-02               |                        |
| Position rotor plastic  | PPA                    | 12.79%          | Polyphosphoric acids   | 8017-16-1     | 9.61E+00               |                        |
|                         |                        |                 | Phosphoric acid  | 7664-38-2     | 5.06E-01               |                        |
|                         |                        | Glass fibre     | 4.48%  | Quartz (SiO2) | 14808-60-7             | 3.54E+00               |
| Crown Ring              | Concentrator           | 9.80%           | Nickel   | 7440-02-0     | 3.72E+00               |                        |
|                         |                        |                 | Silicon  | 7440-21-3     | 2.71E+00               |                        |
|                         |                        |                 | Iron   | 7439-89-6     | 1.28E+00               |                        |
|                         |                        |                 | Manganese  | 7439-96-5     | 3.88E-02               |                        |
|                         |                        |                 | Carbon   | 7440-44-0     | 1.55E-03               |                        |
| Torque Plastic          | PPA                    | 2.68%           | Polyphosphoric acids   | 8017-16-1     | 2.01E+00               |                        |
|                         |                        |                 | Phosphoric acid  | 7664-38-2     | 1.06E-01               |                        |
|                         |                        | Glass Fibre     | 1.44%  | Quartz (SiO2) | 14808-60-7             | 1.14E+00               |
| Yoke                    | Yoke                   | 15.27%          | Iron   | 7439-89-6     | 1.18E+01               |                        |
|                         |                        |                 | Misc. not to declare   |               | 2.42E-01               |                        |
| Magnet                  | Magnet                 | 8.96%           | Neodymium  | 7440-00-8     | 2.13E+00               |                        |
|                         |                        |                 | Iron   | 7439-89-6     | 4.82E+00               |                        |
|                         |                        |                 | Boron  | 7440-42-8     | 1.42E-01               |                        |
| Torque Rotor Hog Ring   | Steel                  | 1.53%           | Iron   | 7439-89-6     | 6.52E-01               |                        |
|                         |                        |                 | Carbon   | 7440-44-0     | 1.82E-01               |                        |
|                         |                        |                 | Chromium   | 7440-47-3     | 2.18E-01               |                        |
|                         |                        |                 | Manganese  | 7439-95-5     | 2.42E-02               |                        |
|                         |                        |                 | Nickel   | 7440-02-0     | 1.21E-01               |                        |
|                         |                        |                 | Phosphorus   | 7223-14-0     | 5.45E-04               |                        |
|                         |                        |                 | Silicon  | 7440-21-3     | 1.21E-02               |                        |
|                         |                        |                 | Sulphur  | 7704-34-9     | 3.63E-04               |                        |
| Position Rotor Hog Ring | Steel                  | 1.62%           | Iron   | 7439-89-6     | 6.90E-01               |                        |
|                         |                        |                 | Carbon   | 7440-44-0     | 1.92E-01               |                        |
|                         |                        |                 | Chromium   | 7440-47-3     | 2.30E-01               |                        |
|                         |                        |                 | Manganese  | 7439-95-5     | 2.56E-02               |                        |
|                         |                        |                 | Nickel   | 7440-02-0     | 1.28E-01               |                        |
|                         |                        |                 | Phosphorus   | 7223-14-0     | 5.76E-04               |                        |
|                         |                        |                 | Silicon  | 7440-21-3     | 1.28E-02               |                        |
|                         |                        |                 | Sulphur  | 7704-34-9     | 3.84E-04               |                        |
| Label                   | Polyester label        | 0.06%           | Polyethylene tereohthalate                                       | 25038-59-9    | 4.78E-02               |                        |
| <b>Total mass</b>       |                        |                 |  |               | <b>79.10</b>           | <b>grams</b>           |