

## Declaration of Hazardous Substances

The RoHS EU directive bans the substances listed in Table 1. None of these substances are present in RoHS/Lead Free compliant Z-COMM products. A RoHS compliant product is determined by the addition of the suffix, "-LF" after the standard part number, ex: "V585ME06-LF". Please contact an applications engineer at [applications@zcomm.com](mailto:applications@zcomm.com) if your part number does not yet exhibit the "-LF" suffix.

|   | Chemical Name                               | CAS No.        | Application Example  |
|---|---|----------------|--|
| 1 | PBB, PBDE; specified bromic fire retardants | 1163-19-5 etc. | Flame retardant  |
| 2 | Mercury and mercury compounds               | 7439-97-6 etc. | Battery, Measuring instrument, Metal alloy, Catalyst, Illuminating lamp  |
| 3 | Cadmium and cadmium compounds               | 7440-43-9 etc. | Pigment, Battery, Metal alloy, Plating, Photograph, Polyvinyl chloride stabilizer, Liquid crystal, Compound semiconductor, |
| 4 | Lead and lead compounds                     | 7439-92-1 etc. | Metal alloy, Electronic part, Pigment, Rubber vulcanization accelerator, Paint, Solder                                     |
| 5 | Hexavalent chromium compounds               | 1333-82-0 etc. | Corrosion prevention (chromate treatment), Oxidizing agent, Dye mordant, Pigment, Plating, Ink, Coloring agent             |

Table 1. RoHS banned substances.

In addition to the RoHS directive other regulatory entities have determined that certain substances are hazardous to the environment. Z-COMM recognizes these regulations. Table 2 lists other hazardous substances that are NOT present in any Z-COMM standard or RoHS compliant product.

|    | Chemical Name   | CAS No.         | Application Example   |
|----|---|-----------------|---|
| 1  | PCB; polychlorinated biphenyls  | 1336-36-3       | Old style transformer, Insulating oil, Thermal catalyst, No-carbon paper  |
| 2  | Asbestos; Chrysotile, Crocidolite, Amosite, Anthophyllite, Tremolite, Actinolite                              | 1332-21-4 etc.  | Friction material, Gasket, Heat insulator material, Thermal insulator, Brake lining, Building materials, Refractory material                    |
| 3  | Chlorinated paraffine (C10-13, Cl $\geq$ 50wt%)   | 61788-76-9 etc. | Flame retardant   |
| 4  | Ozone Depleting Chemical; 1,1,1-trichloroethane   | 71-55-6         | Cleaner, Solvent  |
| 5  | Ozone Depleting Chemical; CFCs and halons   | 75-69-4 etc.    | Solvent, Cleaner, Propellant  |
| 6  | Ozone Depleting Chemical; Carbon tetrachloride  | 56-23-5         | Solvent   |
| 7  | Dichloromethane; Methylene chloride   | 75-09-2         | Solvent, Cleaner  |
| 8  | Tetrachloroethylene; Perchloroethylene  | 127-18-4        | Solvent, Cleaner  |
| 9  | Trichloroethylene; Trichlene  | 79-01-6         | Solvent, Cleaner  |
| 10 | Polychlorinated naphthalene (Cl <sub>x</sub> , x $\geq$ 3); Trichloronaphthalene, Tetrachloronaphthalene, etc | 70776-03-3 etc. | Plasticizer, Machine oil  |
| 11 | Bis(tri-n-butyltin)oxide  | 56-35-9         | Pigment, Paint additive, Insecticide, Antiseptics, Plasticizer, Polyvinyl chloride stabilizer, Various additives                                |
| 12 | Organo tin compounds (Tributyltins, Triphenyltins)  | 1461-23-0 etc.  |   |
| 13 | PVC; polyvinylchloride; polyvinylchloride blends; vinylchloride polymer                                       | 9002-86-2       | Synthetic resin material  |
| 14 | Ozone Depleting Chemical; HCFCs   | 75-43-4 etc.    | Solvent, Cleaner  |
| 15 | Azo compound; Azo dye, pigment (coloring)   | 92-67-1 etc.    | Liquid crystal material, High-tech material, Dyestuff   |
|    | Nickel  | 7440-02-0       | The purpose of the part which can touch with a skin. Plating process, Metal alloy material, Alumite coloring, Pigment, Paint, Battery, Catalyst |
| 16 | Nickel compounds  | 1313-99-1 etc.  |   |

Table 2. Other banned Substances.