



May 25, 2008

To Whom It May Concern:

Subject: Solvent usage with potable water systems, food and beverage equipment

IPS solvent cement ingredients have been evaluated on various occasions by the US Food and Drug Administration, NSF International and other agencies and have not been prohibited from use. Typically, the plastic weld bead is a very small portion of the surface contact area. These ingredients, once they have reacted, dried and cured are not soluble in anything less than a strong organic solvent. There should be no concern as to possible leaching of any of the liquid ingredients in our solvent cements once they have dried and cured. Ingredients of concern in Acrylic adhesives are:

Methylene Chloride, CAS No. 75-09-02, appears to be listed as a *secondary direct food additive permitted in food for human consumption* in 21CFR 173 (173.255), and as an *indirect food additive used in adhesives* in 21CFR 175.105(c) [page 148, line 32];

Trichloroethylene, CAS No. 79-01-6, appears to be listed as a secondary direct food additive permitted in food for human consumption in 21CFR 173 (173.290), and as an *indirect food additive used in adhesives* in 21CFR 175.105(c) [page 155, line 40];

Methyl Methacrylate Monomer, with synonyms including: Methyl methacrylate, Methacrylate monomer, Methyl ester of methacrylic acid, Methyl-2-methyl-2-propenoate, CAS No. 80-62-6, in a concentration of less than one percent. This also appears to be listed as an *indirect food additive used in adhesives* in 21CFR 175.105(c) [page 151, line 16];

Methyl ethyl ketone, CAS No. 78-93-3, appears to be listed as an *indirect food additive used in adhesives* in 21CFR 175.105(c) [page 148, line 41].

Common ingredients present in other plastic adhesive and cement products that are listed as *indirect food additives used in adhesives* in 21CFR 175.105(c) include, but are not limited to:

Acetone, with synonyms 2-Propanone, Dimethyl ketone and Ketone propane, CAS No. 67-64-1;

Benzoyl Peroxide, with synonyms Benzoperoxide and dibenzoyl peroxide, CAS No. 94-36-0;

Cyclohexanone, with synonyms Anone, Cyclohexyl ketone, and Pimelic ketone, CAS No. 108-94-1; **Dimethylformamide**, with synonyms N,N-Dimethylformamide, Dimethyl formamide, and DMF, CAS No. 68-12-2; **Methyl Acetate**, with synonyms Methyl ester of acetic acid and Methyl ethanoate, CAS No. 79-20-9; **Tetrahydrofuran**, with synonyms Diethylene oxide, 1,4

Epoxybutane, Tetramethylene Oxide, and THF, CAS No. 109-99-9, **Toluene**, with synonyms Methyl benzene, Methyl benzol, Phenyl methane and Toluol, CAS No. 108-88-3; **Xylenes**, with synonyms and CAS Numbers 95-47-6, 106-42-3, 108-38-3.

Solvent Usage
May 25, 2008
Page two

These listings indicate that solvent cement ingredients used in PVC, CPVC and ABS piping systems have been thoroughly evaluated as well. Since acrylics and polycarbonates have been in use in and around food preparation equipment and activities for many years, we would expect all these solvent-cements in their typical usage to meet NSF 14, 18, 51 and/or NSF 61 criteria as well as appropriate ASTM, ASME, CSA, IAPMO, ASSE and AWWA performance criteria. We know of no known danger to human health or to the environment once the adhesive has dried and cured when used in these applications.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Winn", written over a white background.

Richard B. Winn, MS, CSP, MIIRSM
Manager – Safety & Environmental Affairs

RBW/lif