

INFORM

PBT-FREE PRODUCTS DATABASE

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
SOLDER, WELDING AND BRAZING ALLOYS			
Brazing and soldering alloys	Cadmium-free	Bellman-Melcor Inc. P.O. Box 188 7575 West 183rd Street Tinley Park, Illinois 60477 Phone: 1-800-367-6024 Fax: 1-888-(brazeit) 272-9348 E-mail: sales@bellmanmelcor.com Web: http://www.bellmanmelcor.com/silvaloy_A-38T.htm	Silvaloy A-38T is used for joining ferrous metals, copper alloys, nickel, nickel alloys and combinations metals. The tin content provides good wetting on many wet metals such as stainless steel and tungsten carbide alloy, being free of Zn or Cd, is preferred for long life and is suitable for use in a controlled atmosphere brazing without flux. The largest use of this alloy is for furnace brazing although it is also suitable for other brazing procedures.
Solders and fluxes (for plumbing, electronics, automotive repair, and other applications)	Lead- and cadmium-free	Canfield Technologies Bow Electronic Solders 1 Crossman Road Sayreville, NJ 08872 Phone: 732-316-2100 FAX: 732-316-1185 E-mail: info@solders.com	See: http://www.solders.com/plumbing.htm http://www.canfieldmetals.com Also makes solders containing lead and cadmium “*Note: Lead-free solders melt at somewhat higher temperatures than tin/lead alloys, and therefore require more heat in the joining process.”
Soldering alloys (Silver - available as rod, wire and rings)	Cadmium-free	CuP Alloys Ltd. 15 Sandstone Avenue Chesterfield, UK S42 7NS Tel: 01-246 566814 Web: http://www.cupalloys.com	This company offers two varieties of cadmium-free solders: one with 24% silver, which has a higher melting temperature than the other with 20% silver, which is more economical. See: http://www.cupalloys.com/content.php?category=8
Braze ring for seal	Cadmium-free	Dana Corporation Toledo, OH http://supplier.dana.com/contact.asp	Also see: http://www.fastenal.com/shoonline/search/BrowseIndex.asp?D=8591
Plumb solders	Cadmium-free	David H. Fell & Co., Inc. 6009 Bandini Blvd. City of Commerce, CA 90040 Tel: 323-722-9992/ 800-822-1996 Fax: 323-722-6567 Web: www.dhfco.com Email: contact@dhfco.com	See http://www.dhfco.com/pages/gold_solder.html

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Plumb and repair solders (white gold, platinum and silver for jewelry manufacturing)	Cadmium-free	Hoover and Strong 10700 Trade Rd. Richmond, VA 23236-3000 Phone: 804-794-3700 Fax: 804-794-5687 www.hooverandstrong.com	http://www.hooverandstrong.com/mill/cadmiumfree
Brazing alloys (silver)	Cadmium-free	Johnson Matthey, PLC Metal Joining York Way, Royston Hertfordshire, UK SG8 5HJ Tel: +44 (0)1763 253200 Fax: +44 (0)1763 253168 Email: mj@matthey.com	These products cannot be used to braze aluminum, ni titanium and their alloys.
Brazing alloys and soldering alloys (silver-based)	Cadmium-free	Lucas-Milhaupt, Inc. 5656 S. Pennsylvania Ave. Cudahy, WI 53110 Tel: (414) 769-6000/ (800) 558-3856 Fax: (414) 769-1093 E-mail: info@lucas-milhaupt.com Web: www.lucas-milhaupt.com	Silver-based cadmium-free filler metals. These alloy temperature, free-flowing filler metals for joining similar dissimilar metals (i.e. copper to steel). They produce strong, ductile joints and are safe because they are cad free. Lucas-Milhaupt offers numerous material compositions for general purpose and specialty applications. The Braze alloys is available in strip, wire, powder, paste, preform as clad tri-metal products and flux-cored wire. See: http://www.lucasmilhaupt.com/htmldocs/brazing_products/filler_metals/silver_cadmium_free.html
Brazing and soldering alloys	Cadmium-free (brazing alloys) Lead-free (solders)	OMG UK Ashton New Road Clayton Manchester, UK M11 4AT Tel: 44 (01606) 301930 Fax: 44 (01606) 301970	BrazeTec is a division of the OMG group. "BrazeTec produces consistently high quality brazing pastes and fluxes for universal as well as specific applications worldwide. Our product range includes silver solder, free silver brazing alloys, silver copper phosphorous copper and brass brazing; copper phosphorous brazing nickel-based pastes for brazing stainless steels, copper copper-tin pastes for furnace brazing; active braze for ceramics, Alubraze materials for brazing aluminum, soft solders. Stock most alloys as rods, wires, tapes, and pastes. Flux-coated rods are also available."

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Brazing alloys	Cadmium-free	Simbron Brazing No. 16, Sixth Alley Ghaem Magham Farahani Ave. Tehran, IRAN Tel: (9821) 875 0961 Fax: (9821) 875 0962 Contact person: Mr. Khangholi Email: technical@simbonbrazing.com	For more information, see: http://www.simbonbrazing.com/producta.html
Alloys (silver for packaging)	Cadmium-free	SISA, Soldaduras Industriales, S.A. c/ Martí, 110-112 Bajos 08024 Barcelona, Spain Tel: +3493-213 2573 and +3493-213 2866 Fax: +3493-219 0863 Telex: 50324 PNSSE E-mail: mail@sisa-brazing.com	Eliminating cadmium (in the composition of the alloy) increases the working temperature and decreases the strength. For this reason, when choosing a Cadmium-free alloy, we wish to keep the same brazing characteristics of an alloy with Cadmium, we must choose a Cadmium-free alloy with a higher Silver content (the increase must be at least between 20%). This may increase cost.
Solder (for gold and silver jewelry manufacturing)	Cadmium-free	Stern-Leach 49 Pearl Street P.O. Box 2018 Attleboro, MA 02703 Tel: 508-222-7400 Fax: 508-699-4030 Web: http://www.sternleach.com/index.php3	See http://www.sternleach.com/technical/cadsolders .
Brazing and solder alloy paste	Cadmium-free	Turbo Braze Unit 4c Kenneth Way Wilstead Industrial Park Wilstead, Bedford MK45 3PD Tel: 01-234-742-992 Fax: 01-234-742-959 E-mail: info@turbobraze.co.uk	For modern PCB-level electronic assembly using surface technology, solder paste is widely used as the joining medium. It contains finely atomized filler metal, a fluxing agent, and a paste-like binder.
Solder for jewelry-making	Cadmium-free	United Precious Metal Refining 2781 Townline Road Alden, NY 14004 Tel: 800-999-FINE Fax: 800-533-6657 E-mail: info@unitedpmc.com Web: www.unitedpmc.com	See: http://www.unitedpmr.com/solders.htm

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Brazing alloy	Cadmium-free	Washington Alloy Corporate Headquarters Puyallup, WA Telephone (253) 848-2230/ (800) 558-5825 E-mail: wa-alloy@weldingwire.com	“The cadmium-free alloys are primarily used in the f of dairy or food handling equipment where the use o bearing filler metals is prohibited.” See: http://www.weldingwire.com/prodinfo.asp?prodID=
OTHER ALLOYS			
Casting alloys	Lead-free (tin-based)	Cookson Electronics Assembly Materials 4100 Sixth Avenue Altoona, PA 16002 Tel: 412-946-1611 Web: www.cooksonelectronics.com	http://www.osterallloys.com/CEAM_OSTER.pdf . “The cadmium conten the fluidity of the product.”
Metal alloys	Lead- and cadmium-free	Ney Metals 269 Freeman Street Brooklyn, NY 11222 Tel: (718) 389-4900 Fax: (718) 349-2313 E-mail: inquiry@neymetals.com Web: www.neymetals.com	Metal Alloys contain more than one metallic element. Their properties c changed by changing the elements present in the alloy. Examples of incl stainless steel which is an alloy of iron, nickel, and chromium; and gold which usually contains an alloy of gold and nickel.
ELECTRONIC COMPONENTS			
Socket base, terminal blocks and components, and adaptors	Cadmium- and halogen-free	ABB USA P.O. Box 5308 501 Merritt 7 Norwalk, CT 06856-5308 Tel: 203-750-2200 Fax: 203-750-2263 Web: http://www.abb.com/us (Headquarters in Switzerland)	ABB SSAC designs and manufactures electronic controls for original eq manufacturers: commercial appliances, heating, ventilating, air condition refrigeration equipment, vending equipment, pumping equipment, elevat for process control and automation designers; obstruction lighting contrc and for a large group of industrial customers and service contractors See http://www.ssac.com/infoctr/ftpdocs/smiss2.pdf
Bayonet connectors for vehicle applications	Zinc-cobalt finish	Aerco Ltd. 16-17 Lawson Hunt Industrial Park Broadbridge Heath Horsham, UK Tel: (+44) 1403 260 206 Fax: (+44) 1403 259 760 E-mail: www.aerco.co.uk/contact.htm Web: www.aerco.co.uk	http://www.aerco.co.uk/news/AE049.htm

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Industrial control and automation products	Cadmium-free	Allen-Bradley (Rockwell Automation) 777 E. Wisconsin Ave. Milwaukee, WI 53202 Tel: (414) 212-5200 E-mail: www.ab.com/contact.html Web: www.ab.com	Environmentally-friendly packaging and molding materials meet recycling packaging, and hazardous material regulations. Cadmium-free contacts; asbestos, and cadmium-free molding materials. http://www.ab.com/power/mcs/overview/#Environmentally%20Friendly
Ceramic capacitors	Lead-, cadmium- and chromium-free (made with plated tin termination)	American Electronic Ceramics 18042 Cortney Ct. City of Industry, CA 91748 Tel: 626-839-5798 Fax: 626-839-8665 Email: gm@aeccapacitor.com Web: www.aeccapacitor.com	Ceramic capacitors are constructed with materials such as titanium acid used as the dielectric. Internally, these capacitors are not constructed as they can be used in high frequency applications. Typically, they are used which bypass high frequency signals to ground.
Electrical connectors (for manufacturing cell phones, fiber optics, and other applications)	Cadmium-free	Amphenol Socapex Courbevoie (Hauts de Seine) France Tel: +33 (0) 1 49.05.30.00 Fax: +33 (0) 1 49.05.30.43 Web: http://www.amphenol-socapex.com	See: http://www.amphenol-socapex.com/db/data/34_uk.pdf
Relays	Cadmium-free	C3Controls PO Box 496 664 State Street Beaver, PA 15009 Tel.: 800-560-8560/ 724-775-7926 Fax: 724-775-5283 E-mail: info@c3controls.com Web: www.c3controls.com	See: http://www.c3controls.com/pdf/Relays.pdf
Sockets, connectors and other electronic components	Some cadmium-free	Challenger Components, Ltd. Unit 1, Church Road Business Centre Sittingbourne, Kent, UK ME10 3RS Tel: +44(0)1795-477255 Fax: +44(0)1795-477259 E-mail: sales@challengercomponents.com Web: www.challengercomponents.com	See: http://www.challengercomponents.com/connectors/enviromental_conne

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
European converter plugs	Cadmium-free	EuroNetwork, Ltd. Unit 1, Horwood Court, Bilton Road, Bletchley, Bucks, UK MK1 1RD Tel: 01908 371909 Fax: 01908 378239 E-mail: sales@euronetwork.co.uk Web: www.euronetwork.co.uk	See: http://www.euronetwork.co.uk/acatalog/Mains_adapters.html
Relay for electronics	Lead- and cadmium-free	IDEC 1175 Elko Drive Sunnyvale, CA 94089-2209 Tel: 408-747-0550 / 800-262-IDEC(4332) Fax: 408-744-9055 / 800-635-6246 E-mail: opencontact@idec.com Web: www.idec.com	Cadmium-free contacts and no solder (lead-free) See: http://www.idec.com/Products/ENG/PDF/U906_PDFs/Relays/Relays.cc
Manufacturers solar panels (and other semi-conducting plastics)	Cadmium-free	Iowa Thin Film Technologies Iowa State University Research Park 2711 South Loop Drive Ames, Iowa 50010-8648 Tel: (515) 292-7606 Fax: (515) 292-1922 Web: www.iowathinfilm.com/contactus/ Web: www.iowathinfilm.com	Semiconducting plastics have qualities similar to those of silicon, which foundation for semiconductors. The advantage of the new development in semiconducting plastics would be screens that are lighter, more flexible, costly to make.
Relays	Cadmium-free	Phoenix Contact, Inc. 586 Fulling Mill Road Middletown, PA 17057 Tel: 717-944-1300/ (800) 888-7388 E-mail: info@phoenixcon.com Web: www.phoenixcon.com	The heart of the SPDT relay series is a new miniature relay designed and manufactured according to the latest methods. Despite its small dimensions, it is robust and equipped with features that you will not find in most pluggable relays. It offers high operating safety due to mechanics protected in accordance with IP 67. It is cadmium-free, environmentally friendly power contact up to 250V ac /6
Rivet nuts, brass inserts, and port/sealing plugs	Cadmium-free	Sherex Industries, Ltd. 1400 Commerce Parkway, Lancaster, NY 14086 Tel: (716) 681-6250 Toll free: 1-866-4-SHEREX (474-3739) Fax: (716) 681-0270 E-mail: info@sherex.com Web: www.sherex.com	Also free of hexavalent chromium See: http://www.sherex.com/html/cfw_series.html

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Relays	Cadmium-free	Tyco Electronics (Poland) Tyco Electronics Polska Sp. z o.o. ul. Postepu 2 [Mapka] 02-676 Warsaw Poland Tel: +48 - 22 - 45 76 - 700 Fax: +48 - 22 - 45 76 - 720 US Tel: 800-468-2023 E-mail: poland.info@tycoelectronics.com Web: www.tycoelectronics.pl	See: http://www.tycoelectronics.pl/catalogues/1308098.pdf
PLASTICS			
Color concentrates for plastic resins (including polyethylene and PVC); plastic compounds containing EP color concentrates	Lead- and cadmium-free	AlphaGary 170 Pioneer Drive Leominster, MA 01453 Tel: 978-537-8071/800-221-6599 Fax: 978-840-0856 Web: http://www.alphagary.com/index.cfm	Some PVC resins are also DEHP- or phthalate-free. (Note: Since PVC resins generate PBTs in their manufacture, we are not encouraging their use. This company also sells PVC-free packaging.) This company also offers halo fire retardant low-smoke and fume compounds for cable and wire jacket and insulation. Again, some of these compounds are PVC, others are PE products can be used in the manufacture of wire/cable, packaging, medical automotive equipment, and other applications.
Thermoplastics (flame retardant)	Cadmium-free	Lynn Plastics Corporation 92 Brookline Street Lynn, MA 01902 Tel. (781) 598-5900 Fax: (781) 598-8944 Web: www.lynnplastics.com	See http://lynnplastics.com/lvp263lf.pdf
Plastic compounds and coloring agents for plastic resins	Lead- and cadmium-free	Ticona USA Application Development Center 2600 Opdyke Road Auburn Hills, MI 48326 Tel: (248) 377-2700 Fax: (248) 377-2981 Web: www.ticona-us.com	Celcon Acetal UV902, a widely used coloring compound for automotive applications manufactured by Hoechst Celanese (now Ticona.us.com), is cadmium-free and provides enhanced stability under UV radiation. http://www.ticona.us.com/Literature/documents/CD/CD_UV_97_313res72dpi.PDF
Vinyl signage material and labels for packaging and medical applications	Cadmium-free	MACTac North America 4560 Darrow Road Stow, OH 44224 Tel: 330-688-1111/866-2MACTac Fax: 330-688-2540 E-mail: MACTac.americas@MACTac.com Web: http://www.mactac.com	See: http://www.mactac.com/catalog/class_product.html?class_code=14 Look for PVC-free alternatives.

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
PVC banner film plastic for banners and other screen graphics applications	Cadmium-free	Halifax Vogel Group <i>Sydney (Head Office)</i> 29 Henderson Street Turrella, NSW Australia 2205 Tel: +61 (0)2 9556 6000 Fax: +61 (0)2 9556 6066 Web: http://www.halifaxvogel.com.au/Contact.asp	PVC-free material would be environmentally preferable.
MISCELLANEOUS			
Polyester - reinforced PVC hose	Cadmium-free	Copely Developments, Ltd. Thurmaston Lane Leicester, UK LE4 7HU Tel: 44 116 276 5881 Fax: 44 116 246 0117 Email: sales@copely.com or export@copely.com Web: www.copely.com	See: http://www.copely.com/products/a01.html and http://www.copely.com/products/b05.html
Traffic marking material (thermoplastic)	Lead-, cadmium-, hexavalent chromium- and mercury-free	Crown Technology, LLC 35 Industrial Park Drive P.O. Box 789 Woodbury, GA 30293 Tel: 800-457-6267 Web: www.crownpavementmarkings.com	Brand name is "Ecotherm" See: http://www.crownpavementmarkings.com/products.html
Dental impression material	Lead- and cadmium-free	Major Dental Products Via Luigi Einaudi 23 10024 Moncalieri (To) ITALY Tel: +39.011.6400.211 Fax +39.011.6402.325 E-mail: info@major.it	See http://www.majordental.com/en/prod/alginate.htm
Paint for stained glass	Cadmium-free	Sundance Art Glass 6052 Foster Road Paradise, CA 95969 Tel: 650-965-9542/888-446-8452 E-mail: sundance@artglass1.com Web: www.artglass1.com	

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
MERCURY ALTERNATIVES			
Aneroid sphygmomanometers (blood pressure measurement devices)	Mercury-free	Welch Allyn Medical Products 4341 State Street Road Skaneateles Falls, NY 13153-0220 Tel: 1-800-535-6663 Fax: 315-685-4091 Web: www.welchallyn.com	The style and manufacturing varies. Welch Allyn introduced the Dura S sphygmomanometer that utilizes a new internal design. The new concept is a sphygmomanometer lighter in weight, considerably lower in cost and more resistant. Depending on the model and style, the prices range from \$132 to \$264.00.
Trimline Sphygmomanometer	Latex-free and mercury-free	TRIMLINE Medical Products Corp. 34 Columbia Rd. Branchburg, NJ, 08876. Tel: 800-526-3538. Fax: 908-429-0536. Web: http://www.trimlinemed.com	Large-face aneroid sphygmomanometer. Constructed of strong ABS material with metal base to withstand rigors of use. Cost varies.
Aneroid Sphygmometer	Mercury-free	W.A. Baum Co., Inc 620 Oak Street, Copiague, NY 11726 Tel: 631.226.3940/ 1-888-281-6061 Fax: 631.226.3969 Web: www.wabaum.com	Consist of metal bellows and a watch-like movement connected to the cuffs. Variation of pressure within the system causes the bellows to expand and contract.
Oscillometric Blood Pressure Monitors (DynaPulse Pathway®)	Mercury-free	Pulse Metric, Inc. 11526 Sorrento Valley Road, Suite C San Diego, CA 92121 Tel: (858)480-1177/ Orders: (858)480-1165 Fax: (858) 480-1167 E-mail: order@pulsemetric.com Web: www.pulsemetric.com	DP5209 Path® has a unique algorithm that produces very accurate blood pressure measurements which also tracks unlimited number of patients and their vital signs. A choice of trend reports can be easily printed which allows for easy data transfer to the diagnostic analysis center. Price \$995.00 . Accessories also available.
Oscillometric Blood Pressure Monitors (BpTRU®)	Mercury-free	VSM MedTech, Ltd. 9 Burbidge Street Coquitlam, BC CANADA V3K 7B2 Tel: +1 604-472-2300 Fax: +1 604-472-2301 BpTRU Customer Support Toll free North America: 877-952-9527 Web: www.vsmmedtech.com	BpTRU® products full line is: BPM-100, BPM-300, BPM-300TEach of BpTRU® unit uses a patent biphasic algorithm to enhance measurement for high systolic pressure readings.

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Oscillometric Blood Pressure Monitors (Spot Vital Signs®)	Mercury-free	Welch Allyn Medical Products (Vital Signs Products) 4341 State Street Road Skaneateles Falls, NY 13153-0220 Tel: 1-800-535-6663 Fax: 315-685-4091 Web: www.welchallyn.com	This device uses the oscillometric method of blood pressure measurement means the monitor detects your blood's movement through your brachia converts the movements into a digital reading. An oscillometric monitor need a stethoscope so the monitor is simple to use.
Bougie Esophageal Dilators (Bougies) (Weightright®) , Gastrointestinal Tubes	Mercury-free	Medovations Inc. 102 E. Keefe Ave. Milwaukee, WI 53212 Tel: (414) 265-7620/ 1-800-558-6408 Fax: (414) 265-7628 E-mail: medo@medovations.com Web: www.medovations.com	WeightRight® is mercury-free boogie, comparable weight and feel of traditional mercury filled bougie, Maloney and Hurst (blunt tip styles offered. Sets (1208-009, 1209-00) and mini sets of 10 bougies provide complete dilatation at competitive price
Bougie Tubes	Mercury-free	Rusch, Inc. (A Teleflex Medical Company) 2450 Meadowbrook Pkwy. Duluth, GA 30096 Tel: 1-800-514-7234 Fax: 1-800-399-1028 E-mail: csrusch@teleflexmedical.com Web: www.myrusch.com	Maloney-style and Hurst-style bougies are weighted with tungsten gel.
Miller Abbot & Cantor Tubes (gastrointestinal tubes)	Mercury-free	Andersen Products Health Science Park 3202 Caroline Drive Haw River, NC 27258-9564 Tel: 1-800-523-1276 E-mail: mailbox@anpro.com Web: www.anpro.com	Used for addressing intestinal obstructions. Anderson offered unweighted tungsten-weighted tubes that they describe as alternatives to Miller-Abbott Cantor tubes. The cost of the non-mercury tubes were approximately \$3 \$400.00.
Digital Manometer	Mercury-free	Mannix Testing and Measurement PO Box 866 600 Broadway Lynbrook, NY 11563 Phone: (516) 887-7979 Fax: (516) 887-7844 E-Mail: info@mannix-inst.com Web: www.mannix-inst.com	Digital manometers are manufactured for various purposes and most pressure sensing units can be interchangeable. Digital manometer can range in price from \$100 to \$700 depending on its application. If properly calibrated, a digital manometer can be more precise than the mercury manometer.

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Digital Manometer	Mercury-free	Testo, Inc. 35 Ironia Rd. Flanders NJ 07836 Tel: 800-227-0729 / 973-252-1720 Fax: 973-252-1729 E-Mail: info@testo.com Web: www.testo.com	Digital manometers are used for measuring positive, negative and differential pressure of air or natural gas, such as for testing and balancing HVAC equipment, medical equipment and computer peripherals.
Digital Manometer	Mercury-free	Extech Instruments Corp. 285 Bear Hill Road Waltham, MA 02451-1064 Tel: 781-890-7440 Fax: 781-890-7864 E-mail: extech@extech.com Web: www.extech.com	Differential Pressure Manometer Measures Gauge/Differential Pressure 138.5 inH ₂ O (inches of water) 11 selectable units with Max/Min recording Relative time stamp Compensated temperature range 32 to 122°F.
Digital Manometer	Mercury-free	TSI Incorporated Alnor Products 500 Cardigan Road Shoreview, MN 55126-3996 Tel: 1-800-424-7427/651-490-2811 Fax: 1-651-490-3824 E-mail: customerservice@alnor.com Web: www.alnor.com	Digital manometers are used for measuring positive, negative and differential pressure of air or natural gas, such as for testing and balancing HVAC equipment, medical equipment and computer peripherals. For more on this product, http://www.alnor.com/hydronic/hm670_680.htm .
Digital Manometer, Needle/ Bourdon Gauge Sonic/Ultrasonic Float Switch Pressure Transmitter – PLT Capacitance	Mercury-free	Dwyer Instruments Inc. P.O. Box 373 102 Indiana Hwy. 212 Michigan City, IN 46361 Tel: 219/879-8000 Fax: 219/872-9057 E-mail: info@dwyer-inst.com Web: www.dwyerinstruments.com	<p>The Bourdon Gauge is one of the most widely used instruments for measuring pressure of liquids and gases of all kinds, including steam, water, and air pressures of 100,000 pounds per square inch.</p> <p>Many process systems operate by the storage, transfer, metering, and distribution of liquid materials. Most often the decision to turn pumps on and off is based on the level of a liquid in a storage vessel which is monitored by a float switch. When the level of the liquid falls below the float switch, the pump motor is turned on. When the level is high enough to open the switch and stop the pump. This maintains a constant level.</p>
Digital Basal Thermometer	Mercury-free	Becton, Dickinson and Company (BD) 1 Becton Drive Franklin Lakes, NJ 07417 201-847-6800 http://www.bd.com	A basal thermometer is an ultra sensitive thermometer that tracks your body's minutest temperature shift or basal temperature. Basal Temperature is the body temperature of a healthy person immediately upon awakening in the morning. This temperature normally rises after ovulation due to hormonal changes.

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Digital Basal Thermometer	Mercury-free	Mabis Healthcare, Inc. 1931 Norman Drive Waukegan, IL 60085 Tel: 800-728-6811 Fax: 800-747-9646 Web: www.mabis.net	A basal thermometer is an ultra sensitive thermometer that tracks your body's minutest temperature shift or basal temperature. Basal Temperature is the body temperature of a healthy person immediately upon awakening in the morning. This temperature normally rises after ovulation due to hormonal changes.
Digital Basal Thermometer (Galinstan liquid-in-glass thermometer)	Mercury-free	RG Medical Diagnostics 21130 Bridge Street Southfield, MI 48034 Tel: 1-888-596-9498 Fax: 1-248-750-0187 E-mail: www.rgmd.com/contact/ Web: www.rgmd.com	A basal thermometer is an ultra sensitive thermometer that tracks your body's minutest temperature shift or basal temperature. Basal Temperature is the body temperature of a healthy person immediately upon awakening in the morning. This temperature normally rises after ovulation due to hormonal changes.
Liquid-Filled Digital Thermometers	Mercury-free	ICL Calibration Laboratories, Inc. 1501 Decker Avenue, Suite 118 Stuart, FL 34994 Tel: 800-713-6647/ 772-286-7710 Fax: 772 286 8737 E-mail: sales@icllabs.com Web: www.icllabs.com	They have either metal or glass stems. As the temperature increases, the liquid inside the stem expands and rises to indicate the temperature on a scale.
Liquid-Filled Digital Thermometers	Mercury-free	Comark Instruments Inc. 9710 SW Sunshine Court, Beaverton, OR 97005 Tel: (503) 643-5204/ (800) 555-6658 Fax: (503) 644-5859 Email : sales@comarkUSA.com Web: www.comarkltd.com	They have either metal or glass stems. As the temperature increases, the liquid inside the stem expands and rises to indicate the temperature on a scale.
Liquid-Filled Digital Thermometers Bi-metal thermometer	Mercury-free	Miller & Weber, Inc. 1637 George Street Ridgewood, NY 11385-5342 Fax: (718) 821-1673 Tel: (718) 821-7110 Web: www.millerweber.com	They have either metal or glass stems. As the temperature increases, the liquid inside the stem expands and rises to indicate the temperature on a scale.

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Liquid Filled Digital Thermometers Bi-metal thermometer	Mercury-free	Taylor Precision Products 2311 W. 22nd Street Oak Brook, IL 60523 Tel: 630-954-1250 Fax: 630-954-1275 E-mail: info@taylorusa.com Web: www.taylorusa.com	They have either metal or glass stems. As the temperature increases, the liquid inside the stem expands and rises to indicate the temperature on a
Liquid-Filled Digital Thermometers Bi-metal thermometer	Mercury-free	Weiss Instruments, Inc. 905 Waverly Avenue Holtsville, NY 11742 Tel: 631-207-1200 Fax: 631-207-0900 E-mail: sales@weissinstruments.com Web: www.weissinstruments.com	They have either metal or glass stems. As the temperature increases, the liquid inside the stem expands and rises to indicate the temperature on a
Liquid Filled Digital Thermometer	Mercury-free	Cooper-Atkins Corporate Headquarters 33 Reeds Gap Road Middlefield, CT. 06455 Tel: (860) 347-2256 Fax: (860) 347-5135 Web: www.cooperinstrument.com	They have either metal or glass stems. As the temperature increases, the liquid inside the stem expands and rises to indicate the temperature on a
Aneroid Barometer	Mercury-free	Howard Miller 860 East Main Avenue Zeeland, MI 49464-1300 Tel: 616-772-7277/ 800-873-0506 Web: www.howardmiller.com	An aneroid is a flexible metal bellow that has been tightly sealed after ha air removed. Higher atmospheric pressures squeeze the metal bellows w pressures allow it to expand. The aneroid barometer has some advantage mercury barometer because it is much smaller and can also record a wee data. The aneroid barometer is the heart of altimeters used in modern avi http://www.howardmiller.com/Product/SearchResults.aspx for more info
Aneroid Barometer	Mercury-free	Weems & Plath 214 Eastern Avenue Annapolis, MD 21403-3318 Tel: 410-263-6700 Fax: 410-268-8713 E-mail: info@weems-plath.com Web: www.weems-plath.com	An aneroid is a flexible metal bellow that has been tightly sealed after ha air removed. Higher atmospheric pressures squeeze the metal bellows w pressures allow it to expand. The aneroid barometer has some advantage mercury barometer because it is much smaller and can also record a wee data. The aneroid barometer is the heart of altimeters used in modern avi http://www.weems-plath.com/cgi-bin/showCategory.cgi?categoryKey=1 info.

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Digital Barometer	Mercury-free	Bacharach, Inc. 621 Hunt Valley Circle New Kensington, PA 15068 Tel: 724-334-5000/800-736-4666 Fax: 724-334-5001 E-mail: help@bacharach-inc.com Web: www.bacharach-inc.com	Electronic digital barometers measure atmospheric pressure, graphically barometric trend, and report relative humidity and temperature. Ideal for ambient changes in the lab, monitoring conditions affecting sample analysis assisting in the prediction of weather changes. See www.bacharach-inc.com/combustion_environmental.htm . For more information.
Digital and ball accurate flow meters	Mercury-free	Eldridge Products, Inc (EPI) 2700 Garden Road, Building A Monterey, CA 93940 Tel: (831) 648-7777/ (800) 321-3569 Fax: (831) 648-7780 E-mail: sales@epiflow.com Web: www.epiflow.com	Master-Touch™ Family of thermal gas mass flowmeters greatly expand legacy by adding a powerful microprocessor to our proven thermal technology.
Digital and ball accurate flow meters	Mercury-free	Flow Technology, Inc. 4250 East Broadway Road Phoenix, AZ 85040 Tel: 602-437-1315/ 800-528-4225 Fax: 602-437-4459 Email: ftimarket@ftimeters.com Web: www.ftimeters.com	This product utilizes a proven flow measurement technology to provide exceptionally accurate and reliable digital outputs. Because of their versatility, turbine flowmeters are the solution for a wide variety of liquid and gas flow applications.
Digital and Ball actuated flow meters	Mercury-free	John C. Ernst Co., Inc. 21 Gail Court Sparta, NJ 07871 Tel: 973-940-1600/ 1-888-463-7678 Fax: 973-940-1620 E-mail: info@johnernst.com Web: www.johnernst.com	The CMOS, microprocessor-based electronics have extremely low power requirements and data retention capabilities in both RAM and ROM. Information is clearly displayed on a large 6-digit liquid crystal display with two-point decimal for totals from .01 to 999,999. All operations are accessed with simple key which simplify operations.
Digital and ball actuated flow meters	Mercury-free	Lake Monitors, Inc. 2013 South 37th Street Milwaukee, WI 53215 Tel: 414-671-3577/ 800-850-6110 Fax: 414-671-5253 E-mail: info@lakemonitors.com Web: www.lakemonitors.com	Accurate, dependable flow monitoring in operations up to 6000 psig and of up to 150 GPM

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Optical/digital pyrometers	Mercury-free	Electronic Development Labs, Inc. (EDL) EDL Tool & Die 244 Oakland Drive Danville, VA 24540 Tel: 434-799-0807/ 800-342-5335 Fax: 434-799-0847 E-mail: sales@edl-inc.com Web: www.edl-inc.com	This instrument incorporates many features previously found only in more priced bench or rack mounted instruments. The manufacturer has incorporated precision cold end reference junction that is designed to accurately compensate changes in ambient and keep the instrument functioning at its highest accuracy. When the utmost accuracy is required, the internal electronic cold end reference can be set to external and an ice bath used.
Digital Pyrometer	Mercury-free	McEnglevan Industrial Furnace Co. (MIFCO) 700 Griggs Street P.O. Box 31 Danville, Illinois 61834 Tel: 217-446-0941 x112 Fax: 217-446-0943 www.mifco.com	Designed so meter replacement is simple, relatively inexpensive, and can be done by the operator or instructor in the shop. The rugged temperature compensation meter movement is accurate within $\pm 2\%$ of the meter scale.
Optical Pyrometers	Mercury-free	Spectrodyne, Inc. 2036 Emerson Drive Quakertown, PA 18951 Tel: 215-804-1044 Fax: 215-804-1045 E-mail: sales@spectrodyne.com Web: www.spectrodyne.com	N.I.S.T. traceable calibration, complies with ISO 9000, ANSI Z540, 10 CFR 101.101, MIL-STD 45662A
Optical Pyrometers	Mercury-free	The Pyrometer Instrument Co., Inc. 209 Industrial Parkway Northvale, NJ 07647 Tel: (201)768-2000/ 800-468-7976 Fax: (201) 768-2570 Email: sales@pyrometer.com Web: www.pyrometer.com	New enhanced imaging optics are available for the PYRO MicroTherm sensor disappearing filament radiation pyrometer. With the new enhanced precision high temperature measurement on small targets to 0.0005" can be obtained with clear crisp viewing of the instrument's target. The enhanced optics are extremely useful when viewing multiple miniature items of different temperatures concurrently in the instruments field of view.
Thermostats (industrial and manufacturing)	Mercury-free	Chromalox, Inc. 103 Gamma Drive Extension Pittsburgh, PA 15238 Tel: 412-967-3800/ 800-443-2640 / Fax: 412-967-5148 Web: www.mychromalox.com	Thermostats are available in a multitude of options including indicating and non-indicating process variable, Nema 4, 4X and Explosion resistant, infinite and percentage timers. Other types of controls include cut-outs, thermostat surface mounts, ambient sensing thermostats, appliance, and room thermostat switches.

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Thermostats (Industrial and manufacturing)	Mercury-free	Honeywell International, Inc. Home and Building Control Division 1985 Douglas Drive North Golden Valley, MN 55422-4386 Tel: (612) 951-1000/ (763) 954-4461 Fax: (763) 954-4003 E-mail: info@honeywell.com Web: www.honeywell.com	The Honeywell thermostat product line consists of standard pre-set temp thermostats, single-pole, single-throw (SPST) hermetic and non-hermeti thermostats, subminiature thermostats and thermal switches.
Thermostats (Industrial and Manufacturing)	Mercury-free	Kelvin Technologies, Inc. 1351 Matheson Blvd. East, Unit 3 Mississauga, Ontario, L4W 2A1 CANADA Tel: 905-238-7060/ 800-458-5246 Fax: 905-238-7061 Email: sales@kelvintech.com Web: www.kelvintech.com	See http://www.kelvintech.com/thermostats.htm for product info.
7000 Series Mercury Float Switch	Mercury-free	Advanced Control Technology Inc. (ACT) Liquid Level Sensors 7050 East Highway 101 Shakopee, MN 55379 Tel: 952-882-0000/ 877-800-8820 Fax: 952-890-3644 E-mail: info@actsensors.com Web: www.actsensors.com	See http://www.comus-intl.com/floatswitch_us.asp for product info.
Mercury Float Switch Metallic Ball Magnetic Dry Reed	Mercury-free	Comus International 454 Allwood Road Clifton, NJ 07012 Tel: (973) 777-6900 Fax: (973) 777-8405 Email: sales@comus-intl.com Web: www.comus-intl.com	See http://www.comus-intl.com/floatswitch_us.asp for product info.
Mercury Float Switch 2900 Series	Mercury-free	Conery Manufacturing, Inc. 1380 Enterprise Parkway Ashland, Ohio 44805 Tel: 419-289-1444 PH Fax: 419-281-0366 FX E-mail: sales@conerymfg.com Web: www.conerymfg.com	See http://www.conerymfg.com/productcat.htm for product details.

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Mercury Float Switch	Mercury-free	Electro-Sensors, Inc. 6111 Blue Circle Drive Minnetonka, MN 55343 Tel: 952-930-0100/ 800-328-6170 Fax: 952-930-0130 E-mail: Sales@electro-sensors.com www.electrosensors.com	Wide range of electronic products available through Electro-Sensors, Inc
E-8, 80, 65 and 165 Series	Mercury-free	ITT Industries - McDonnell & Miller 3500 N. Spaulding Ave. Chicago, IL 60618, Tel: 773-267-1600 Fax: 773-267-0991 Web: www.mcdonnellmiller.com	Packless bellows, Heavy duty single pole, single throw switch, Available or reverse acting, Maximum operating pressure 50 psi (3.5 kg/cm ²), Max water temperature 287°F (142°C)
Mercury Float Switch Model: A, B, C, D Series	Mercury-free	Mercury Displacement Industries Inc. (MDI) P. O. Box 710 U.S. 12 East Edwardsburg, MI 49112 Tel: (269) 663-8574/ 800-634-4077 Fax: (269)-663-2924 Web: www.mdius.com	Ratings up to 2HP or 25 AMP, High Impact Polystyrene or High, Temp ABS rated up to 186°F, Any cord length available. UL Max. 50', 120V/240VAC series plugs, 3 pin barrel plug, or standard skive available.
Mercury Float Switch FG Series Conductivity – ELS Series Optical Float Switch – OPL Series Magnetic Dry Reed	Mercury-free	Scientific Technologies Inc. (STI) Automation Sensors 1025 W. 1700 N. Logan, UT 84321 Tel: 435-753-7300/ 888-525-7300 Fax: 435-753-7490 E-mail: sales@automationsensors.com Web: www.levelandflow.com	The ELS is an STI conductive probe system. It is a popular technique in applications such as municipal water and steam generators. The OPL Series Optical Liquid Level Sensors –are very small OEM type optical level sensors with optional NPT or BSP threaded fittings for industrial or OEM vehicle applications.
Mercury Float Switch Model: 4701, 4704 Series	Mercury-free	Septronics, Inc. 602 East Union Street Oconomowoc, WI 53066 Tel: 888-565-8908 Fax: 262-567-9532 E-mail: septronics@charterinternet.com Web: www.septronicsinc.com	The twin float pump switch is used to operate any kind of submersible pump for sewage, or effluent pump, and can pump down as much as 54" of liquid cycle. This pump switch will operate up to 1 hp pump on 120V and 2 hp on 230V in any pump chamber 12" in diameter or larger. The switch is not affected by turbulence or float rotation, and can withstand water temperatures up to 212°F.

PRODUCT DESCRIPTION	PBT ELIMINATED	COMPANY & CONTACT INFORMATION	NOTES ON COST AND PERFORMANCE
Mercury Float Switch FS121 CW101 Series	Mercury-free	Signal Systems International Inc. PO Box 470 1700 Route 35 North Lavallette, NJ 08735 Tel: 732-793-4668 Fax: 732-793-4679 E-mail: dmetts@signalsystem.com Web: www.signalsystem.com	See http://www.signalsystem.com/float.htm for product details.