

Alternatives* to Polyvinyl Chloride (PVC) Medical Devices for the Neonatal Intensive Care Unit (NICU)

Products detailed in this publication include:

Accessories - NICU

- armboards
- eye shield
- noise attenuators
- phototherapy diapers

Bags, non-sterilized

Bags, sterilized

Bedding and Padding

Blood pressure cuffs

Blood Products

- blood bags
- blood filters

Body Bags

Breast pumps

Diagnostic Equipment

- sampling kits

Dialysis, hemodialysis

- hemodialysis catheters
- cartridge blood sets

Dialysis, peritoneal

- Cruz catheters
- rigid dialysate containers
- peritoneal catheters

ECG electrodes

Enteral feeding sets

- bags and tubing
- extension sets

Epidural catheters

Feeding tubes and accessories

- gastrostomy tubes
- nasogastric tubes
- nasogastric tubes
- nasojejunal tubes
- pediatric clear straight catheters
- PEG tubes

Gloves, Examination

Hemodialysis

- hemodialysis catheters
- cartridge blood sets

Intravenous (IV) Products

- administration sets
- anti-coring needles
- IV bags
- IV tubing

Irrigation/Drainage

- drains
- irrigation containers
- mediastinal catheter
- nephrostomy catheters
- surgical and wound drains
- thoracic catheters

Medical Film

Patient ID Bracelets

Plastic bags and wrap

Radiation aprons and shields

Respiratory Therapy Products

- CPAP nasal cannula
- endotracheal tubes
- intubation sets
- laryngectomy tubes
- masks, aerosol and oxygen
- nasal and turbinate stents
- orotracheal protection devices
- oxygen hoods
- oxygen tubing
- sleep apnea tubes
- suction catheter
- tracheostomy tubes

Sterilization

Sump tubes

Total parenteral nutrition

- bags
- catheters
- tubing

Tubing - Medical and Surgical

Umbilical vessel catheters

Urinary catheters

- Foley catheters
- urethral catheters for pediatrics
- urinary catheters

Vascular Catheters

- central venous catheters
- introcan safety catheters
- midline catheters
- percutaneous catheter introducers
- peripheral IV catheters
- peripherally-inserted central catheters (PICC)

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Sources: Sustainable Hospitals Project, 2000, "Alternative Products," see <http://sustainablehospitals.org> (Lowell: Sustainable Hospitals Project, UMass Lowell); and Tickner, Joel, et al, 1999, The Use of Di-2-Ethylhexyl Phthalate in PVC Medical Devices: Exposure, Toxicity, and Alternatives (Lowell: Lowell Center for Sustainable Production, UMass Lowell); and all information was verified through telephone contacts with manufacturer representatives or review of manufacturer website information.

Alternatives* to Polyvinyl Chloride (PVC) Medical Devices for the Neonatal Intensive Care Unit (NICU) (Part 1 of 10)

Products	Manufacturer	Telephone #	Website	Material	Comments
Accessories - NICU	CAS Medical	800.580.7032	www.casmedical.com	Polyethylene and polyolefins	Light-permeable diapers for phototherapy
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Fabric foam, DEHP-free, latex-free	Baby boards (positioners)
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Fabric; DEHP-free	Baby shades eye protectors
	Marian Medical, Inc.	502.895.6991	www.marianmedicalonline.com	Silicone; Non-DEHP PVC	Neonatal procedure kits
	Natus Medical	800.255.3901	www.natus.com	Patented latex-free material	Phototherapy eye shield
	Natus Medical	800.255.3901	www.natus.com	Polyolein foam with polyethylene coating	Neonatal noise attenuators (MiniMuff)
	Tarry Manufacturing	800.688.2779	www.tarrymfg.com	Polyurethane boards, cotton/polyester fabric covering	Armboards
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	100% cotton covering	Phototherapy eye protectors
Bags, Non-sterilized	Cryovac	800.391.5645	www.cryovacmedicalfilms.com	Polyolefins	Medical film for packaging pharmaceutical bags and ostomy pouches
	Qosina	631.242.3000	www.qosina.com	Ethylene vinyl acetate	Bags with graduations
	Qosina	631.242.3000	www.qosina.com	Low-density polyethylene	Specimen transport bags
	Qosina	631.242.3000	www.qosina.com	Polyethylene	Bags and pouches
	Qosina	631.242.3000	www.qosina.com	Polyolefin-based film	Bags
	Qosina	631.242.3000	www.qosina.com	Polypropylene	Autoclave bags
Bags, Sterilized	General Econopak	888.871.8568	www.generaleconopak.com	Polyolefin/Kraft paper	Sterilization pouches
	General Econopak	888.871.8568	www.generaleconopak.com	Polyurethane	Sterility maintenance covers
	General Econopak	888.871.8568	www.generaleconopak.com	Tyvek	Sterilization bowl covers, steam component bags, tubing wrappers
	General Econopak	888.871.8568	www.generaleconopak.com	Tyvek / Polyester film	Sterilization bags
Bedding and Padding Products	Action Products	800.228.7763	www.actionproducts.com	Visko elastic akton polymer	Isolette pad, bassinet pad, O.R. overlay, donut head pad, horseshoe head pad, forehead protector, pediatric positioner
	CAS Medical	800.580.7032	www.casmedical.com	Foam with flannel covering	Positioning devices for premature infants (Premie Nestle)
	Children's Medical Ventures / Respironics	800.345.6443	www.childmed.com	Polyurethane	Soft Gel pillow - neonates
	LDI Corporation	603.330.0700	www.lidolutions.com	Polyethylene	Mattress cover
	Tarry Manufacturing	800.688.2779	www.tarrymfg.com	DEHP-free polyethylene-EVA blend film filled with non-toxic water-based food gel; cotton/polyester fabric pillow cover	Positioning Aid - neonatal (TarryGel Pillow)

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Alternatives* to Polyvinyl Chloride (PVC) Medical Devices for the Neonatal Intensive Care Unit (NICU) (Part 2 of 10)

Products	Manufacturer	Telephone #	Website	Material	Comments
Bedding and Padding Products (cont'd)	Tarry Manufacturing	800.688.2779	www.tarrymfg.com	DEHP-free polyethylene-EVA blend film filled with non-toxic water-based food gel; cotton/polyester fabric pillow cover	Positioning aids - neonatal (Tarry Tubes and Soft Donuts)
	Tarry Manufacturing	800.688.2779	www.tarrymfg.com	Non-DEHP PVC	Mattress cover
Blood Pressure Cuffs	CAS Medical	800.580.7032	www.casmedical.com	Polyurethane	Blood pressure cuffs - infant through adult sizes (Ultra-Check)
	CAS Medical	800.580.7032	www.casmedical.com	Polyurethane	Blood pressure cuffs - neonatal (Soft-Check Free)
Blood Pressure Monitoring	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Non-DEHP PVC	Closed, needleless blood sampling and pressure monitoring kit (Deltran Plus)
Blood Products	Arrow International	800.523.8446	www.arrowintl.com	Non-DEHP PVC	Blood bag spikes
	Charter Medical	877.369.2810	www.chartermed.com	EVC Compound AM83	DEHP-free Administration sets
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Non-DEHP PVC; silicone, polypropylene	Blood collection / infusion sets (Monoject™ Angel Wing™)
	Fenwal Inc.	800.333.6925	www.fenwalinc.com	Non-DEHP PVC	Bags for packed red blood cells
	Fenwal Inc.	800.333.6925	www.fenwalinc.com	Non-DEHP PVC	Bags for platelets, platelet rich plasma and fresh frozen plasma
	Fenwal Inc.	800.333.6925	www.fenwalinc.com	Polyolefin	Bags for platelets, platelet rich plasma and fresh frozen plasma
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Acrylic polymer and stainless steel	Microaggregate blood filter (Hemo-nate)
Body Bags	ICP Medical	800.405.3044	www.icpproducts.com	Polyethylene	Body bags
	LDI Corporation	603.330.0700	www.ldisolutions.com	Olefin	Body bags
	Tri-State Hospital Supply Corporation	800.248.4058	www.tshsc.com	Polyethylene and ethylene vinyl acetate (PEVA)	Body bags
Breast Pumps	Bailey Medical Engineering	800.413.3216	www.baileymed.com	LDPE Polyethylene	Milk storage bags
	Bailey Medical Engineering	800.413.3216	www.baileymed.com	Polypropylene	Double electric breast pump kit (Nuture III). All parts and accessories are BPA- and DEHP-free.
	Medela	800.435.8316	www.medela.com	Silicone	Breast pump kit with silicone tubing (Symphony Double Pumping Kit). All Medela kits and accessories are BPA- and DEHP-free. Silicone tubing also sold separately for all hospital-grade Medela pumps
Diagnostic Equipment	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Acrylic polymer and stainless steel	Cerebral spinal fluid sampling kit (Myelo-Nate)
Dialysis, Hemodialysis	Baxter Healthcare Corporation	888.229.0001	www.baxter.com	HDPE	Rigid dialysate containers
	Arrow International	800.523.8446	www.arrowintl.com	Polyurethane	Hemodialysis catheter

Sources: Sustainable Hospitals Project, 2000, "Alternative Products," see <http://sustainablehospitals.org> (Lowell: Sustainable Hospitals Project, UMass Lowell); and Tickner, Joel, et al, 1999, The Use of Di-2-Ethylhexyl Phthalate in PVC Medical Devices: Exposure, Toxicity, and Alternatives (Lowell: Lowell Center for Sustainable Production, UMass Lowell); and all information was verified through telephone contacts with manufacturer representatives or review of manufacturer website information.

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Alternatives* to Polyvinyl Chloride (PVC) Medical Devices for the Neonatal Intensive Care Unit (NICU) (Part 3 of 10)

Products	Manufacturer	Telephone #	Website	Material	Comments
Dialysis, Hemodialysis (cont'd)	Gambro	800.525.2623	www.usa-gambro.com	Non-DEHP PVC	Cartridge blood set/hemodialysis blood lines
	Medcomp, Inc.	215.256.4201	www.medcompnet.com	Polyurethane	Hemodialysis catheter
	Smiths Medical / Deltec	800.426.2448	www.smiths-medical.com	Polyurethane	Hemodialysis catheter
Dialysis, Peritoneal	AngioDynamics	800.772.6446	www.angiodynamics.com	Polyurethane	Dialysis catheter
	AngioDynamics	800.772.6446	www.angiodynamics.com	Silicone	Peritoneal catheter (Infuse-A-Port)
	B. Braun	800.621.0445	www.bbraunusa.com	Polypropylene/polyethylene comonomer	Rigid peritoneal dialysate container
	B. Braun	800.621.0445	www.bbraunusa.com	Silicone	Peritoneal catheter
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Silicone	Peritoneal catheter
	Degania Silicone	401.349.5373	www.ds-il.com	Silicone	Peritoneal catheter
	Medcomp, Inc.	215.256.4201	www.medcompnet.com	Silicone	Peritoneal catheter
	Vygon	800.544.4907	www.vygonusa.com	Silicone	Peritoneal catheter
ECG Electrodes	CAS Medical	800.580.7032	www.casmedical.com	Cloth	ECG electrodes - wires are PVC
	Children's Medical Ventures / Respironics	800.345.6443	www.childmed.com	Cloth / Hydrogel	Wires have PVC jacketing
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Cloth or foam	ECG electrodes - wires are PVC
Enteral Feeding Sets	Cardinal Health / Viasys	800.323.6305	www.viasyshealthcare.com	Nylon, ethylene vinyl acetate, polypropylene	Farrell valve for enteral gastric pressure relief: PVC-free bag with tubing made from PVC with DEHP
	Cardinal Health / Viasys	800.323.6305	www.viasyshealthcare.com	Silicone	Cubby button gastrostomy device (CorFlo)
	Cardinal Healthcare / Viasys	800.323.6305	www.viasyshealthcare.com	Ethylene vinyl acetate	Enteral feeding bags (for use with the Corflo 300 enteral pump)
	Cardinal Healthcare / Viasys	800.323.6305	www.viasyshealthcare.com	Non-DEHP PVC	Feeding sets (neonatal and pediatric) (Corflo Anti-IV)
	Children's Medical Ventures / Respironics	800.345.6443	www.childmed.com	Non-DEHP PVC	Enteral set
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Non-DEHP PVC	Non-DEHP bag & tube
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Non-DEHP PVC	Extension sets
	Degania Silicone	401.349.5373	www.ds-il.com	Silicone	NG tubes (nasal): pediatric
	Marian Medical, Inc.	502.895.6991	www.marianmedicalonline.com	Non-DEHP PVC	Enteral extension sets
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Silicone, Non-DEHP PVC	Nutri-Lok enteral feeding system
	Zevex	800.970.2337	www.zevex.com	Non-DEHP PVC	Enteral feeding set

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Products	Manufacturer	Telephone #	Website	Material	Comments
Epidural Catheters	B. Braun	800.227.2862	www.bbraunusa.com	Polyamide (nylon)	Epidural catheter
Feeding Tubes and Accessories	Arrow International	800.523.8446	www.arrowintl.com	Silicone	Feeding tube
	Cardinal Healthcare / Viasys	800.323.6305	www.viasyshealthcare.com	Polyurethane	PEG tube, nasoenteric feeding tube, jejunal tube
	Cardinal Healthcare / Viasys	800.323.6305	www.viasyshealthcare.com	Silicone	Gastrostomy tube
	Cardinal Healthcare / Viasys	800.323.6305	www.viasyshealthcare.com	Polyurethane	PEG tube, nasogastric and nasojejunal feeding tubes
	Cardinal Healthcare / Viasys	800.323.6305	www.viasyshealthcare.com	Silicone	Gastrostomy tube
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Non-DEHP PVC	Gastrostomy tubes
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Non-DEHP PVC	Clear straight catheters
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Polyurethane	Nasoenteric tube, PEG tube, nasojejunal tube
	Kimberly-Clark (Ballard Medical Devices)	800.524.3577	www.khealthcare.com	Silicone	PEG feeding tube, gastrostomy feeding tube, jejunal feeding tube
	Marian Medical, Inc.	502.895.6991	www.marianmedicalonline.com	Silicone	Feeding tube for neonates
	Medline, Inc.	800.633.5463	www.medline.com	Silicone	Nasogastric tubes
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Polypropylene	Monoject™ oral dispensers (Nutri-Lok oral dispensers)
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Silicone	Nasogastric and nasoenteric feeding tubes (Gesco Nutri-cath)
	Vygon	800.544.4907	www.vygonusa.com	Polyurethane or silicone	Gastric feeding tube for infants, nasojejunal tube
	ZeveX	800.970.2337	www.zevex.com	Polyurethane	Nasoenteric feeding tube
Floor Pads	LDI Corporation	866.332.0700	www.ldisolutions.com	Polyester and absorbent fibers with non-skid olefin backing	Surgical absorbent floor pads
Gloves, Examination	Ansell Healthcare	800.952.9916	www.ansellhealthcare.com	Nitrile	
	Best Manufacturing Co.	800.241.0323	www.bestglove.com	Nitrile	
	Cardinal Health	800.964.5227	www.cardinal.com/mps	Nitrile	(Esteem®)
	FirstLine LLC	805.688.6768	www.glovegirls.com	Nitrile	
	Kimberly-Clark (Ballard Medical Devices)	800.524.3577	www.khealthcare.com	Nitrile	Gloves - formerly SafeSkin brand
	SmartPractice	800.522.0800	www.smartpractice.com	Nitrile	
	Tillotson Healthcare Corp.	800.445.6830	www.thcnet.com	Nitrile	True Advantage
	Tillotson Healthcare Corp.	800.445.6830	www.thcnet.com	Polychloroprene, lined with polyurethane	Ultra Preserve

Sources: Sustainable Hospitals Project, 2000, "Alternative Products," see <http://sustainablehospitals.org> (Lowell: Sustainable Hospitals Project, UMass Lowell); and Tickner, Joel, et al, 1999, The Use of Di-2-Ethylhexyl Phthalate in PVC Medical Devices: Exposure, Toxicity, and Alternatives (Lowell: Lowell Center for Sustainable Production, UMass Lowell); and all information was verified through telephone contacts with manufacturer representatives or review of manufacturer website information.

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Products	Manufacturer	Telephone #	Website	Material	Comments
Gloves, Surgical	Ansell Healthcare	800.952.9916	www.ansellhealthcare.com	Nitrile	
	Tillotson Healthcare Corp.	888.335.7500	www.thcnet.com	Nitrile	True Advantage
Intravenous (IV) Products	AngioDynamics	800.772.6446	www.angiodynamics.com	Non-DEHP PVC	Anti-coring needles (RITA infusion sets)
	B. Braun	800.227.2862	www.bbraunusa.com	Polyethylene, polypropylene, foil, and other special barriers	Two-chamber bag - one chamber antibiotic powder, the other diluent (Duplex)
	B. Braun	800.227.2862	www.bbraunusa.com	Polypropylene/ polyethylene copolymer	IV solutions in PVC-free partial additive bag (PAB)
	B. Braun	800.227.2862	www.bbraunusa.com	Polypropylene/ polyethylene copolymer	Pre-mixed drug solutions in PVC-free partial additive bag (PAB)
	B. Braun	800.227.2862	www.bbraunusa.com	Polypropylene/ polyethylene copolymer, polyester, elastomer laminate	IV solutions in PVC-free bag (Excel)
	B. Braun	800.227.2862	www.bbraunusa.com	Polypropylene/ polyethylene copolymer, polyester, elastomer laminate	Pre-mixed drug solutions in PVC-free bag (Excel)
	Baxa Corporation	800.567.2292	www.baxa.com	Ethylene vinyl acetate	IV bag
	Baxter Healthcare Corporation	888.229.0001	www.baxter.com	Glass	IV containers for Nitroglycerin
	Baxter Healthcare Corporation	888.229.0001	www.baxter.com	Polyolefin	Pre-mixed drugs in PVC-free bags (Galaxy)
	Baxter Healthcare Corporation	888.229.0001	www.baxter.com	Polyolefin	Empty IV container - DEHP free (INTRAVIA)
	Baxter Healthcare Corporation	888.229.0001	www.baxter.com	Polypropylene	IV containers for lipids
	Baxter Healthcare Corporation	888.229.0001	www.baxter.com	Polypropylene and polyethylene	IV bag (AVIVA)
	Cryovac	864.433.2709	www.cryovacmedicalfilms.com	Multi-layer polyethylene, polypropylene	Sterilizable IV film/bag and IV tubing
	Cryovac	864.433.2709	www.cryovacmedicalfilms.com	Polypropylene	Spike port
	Curlin Medical	888.487.4454	www.curlinmedical.com	Non-DEHP PVC	Infusion administration sets
	Ethox Corporation	800.521.1022	www.ethoxcorp.com	Polypropylene	Infuser (Surgi-Press)
	Hospira, Inc.	877.946.7747	www.hospira.com	Glass	IV containers for lipids and general intravenous solutions
	Hospira, Inc.	877.946.7747	www.hospira.com	Non-DEHP PVC	Non-DEHP administration sets
	Hospira, Inc.	877.946.7747	www.hospira.com	Polypropylene	IV solutions in non-PVC, non-DEHP bag (VisiIV®)
	MPS Acacia	800.486.6677	www.mpsacacia.com	Non-DEHP PVC	IV Infusion NICU specialty sets
Smiths Medical / Medfusion	800.426.2448	www.smiths-medical.com	Makrolon (polycarbonate and polyethylene)	Stopcocks	
Smiths Medical / Medfusion	800.426.2448	www.smiths-medical.com	Polyethylene	IV extension set	

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Products	Manufacturer	Telephone #	Website	Material	Comments
Intravenous (IV) Products (cont'd)	Smiths Medical / Medfusion	800.426.2448	www.smiths-medical.com	Polyurethane	IV extension set
	Stedim Corporation	800.914.6644	www.sartorius-stedim.com	Polypropylene	Drug delivery bags (STEDIM 100)
	Vygon	800.544.4907	www.vygonusa.com	Polyethylene	IV extension sets (Lectro-Cath)
	Vygon	800.544.4907	www.vygonusa.com	Polyurethane	Catheter for mid / long-term IV therapy (PremiCath and Nutriline)
Irrigation / Drainage	Baxter Healthcare Corporation	888.229.0001	www.baxter.com	Polypropylene	Container for irrigation solutions
	Hospira, Inc.	877.946.7747	www.hospira.com	Ethylene propylene copolymer	Irrigation/urology solutions in PVC-free containers (Aqualite)
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Silicone	Wound drainage systems
	Amsino International	800.632.6746	www.amsino.com	Silicone	Wound drainage systems and tubing
	Amsino International	800.632.6746	www.amsino.com	Thermoplastic elastomer	Ear and ulcer syringes
	Atrium Medical Corporation	800.528.7486	www.atriummed.com	Silicone	Thoracic and mediastinal catheter
	Axiom Medical	800.221.8569	www.axiommed.com	Silicone	Thoracic catheter, flat drains, round drains, petit wound drains, and kits.
	B. Braun	800.227.2862	www.bbraunusa.com	Polyethylene/polypropylene copolymer	Containers for irrigation/urology solutions (PIC)
	Cardinal Health	800.964.5227	www.cardinal.com/mps	Silicone	Wound and channel drains, bulb reservoirs
	Degania Silicone	401.349.5373	www.ds-il.com	Silicone	Surgical and wound drains, thoracic catheter, nephrostomy catheter - may fit neonates
	Kimberly-Clark (Ballard Medical Devices)	800.524.3577	www.kchealthcare.com	Silicone	Bowel management kit - balloon and tube
	Small Beginnings, Inc.	800.676.0462	www.small-beginnings.com	Silicone	Oral and nasal suction catheter - neonatal (Bebeonkers 16-2)
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Silicone	Thoracic catheter (Thora Cath)
	Vygon	800.544.4907	www.vygonusa.com	Silicone	Thoracic drain
Medical Film	Cooley MedGuard	800.333.3048	www.cooleysgroup.com	Polyolephin - Medguard™	Reinforced polymer membrane for medical end use
	Cooley MedGuard	800.333.3048	www.cooleysgroup.com	Polyurethane - Coolthane™	Reinforced polymer membrane for medical end use
	Cryovac	864.433.2000	www.cryovacmedicalfilms.com	Polyolefins	Medical film for packaging pharmaceutical solutions
	DOW Chemical	800.441.4369	www.dow.com/medfilm/	Polyolefins	Medical device film (Affinity)
	Focus BioMed	508.529.4990	www.focusbiomed.com	Polyolefins	Polymer films for medical devices
	GLS Thermoplastic Elastomers	800.457.8777	www.glsCorp.com	Thermoplastic elastomers	Film for medical devices and tubing
	Stevens Urethane	800.595.2330	www.stevensurethane.com	Thermoplastic urethanes	Film, sheet, and tubing for medical devices

Sources: Sustainable Hospitals Project, 2000, "Alternative Products," see <http://sustainablehospitals.org> (Lowell: Sustainable Hospitals Project, UMass Lowell); and Tickner, Joel, et al, 1999, The Use of Di-2-Ethylhexyl Phthalate in PVC Medical Devices: Exposure, Toxicity, and Alternatives (Lowell: Lowell Center for Sustainable Production, UMass Lowell); and all information was verified through telephone contacts with manufacturer representatives or review of manufacturer website information.

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Alternatives* to Polyvinyl Chloride (PVC) Medical Devices for the Neonatal Intensive Care Unit (NICU) (Part 7 of 10)

Products	Manufacturer	Telephone #	Website	Material	Comments
Patient ID Bracelets	Precision Dynamics Corporation	800.772.1122	www.pdcorp.com	Polyester	Imprinter wristbands
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Foam	Comfortable foam movable ID bracelets
	Wristband & Medical Specialty Products	800.940.3993	www.wristbandsupply.com	Tyvek®	Appropriate for short stays
Plastic Bags and Wrap	Many manufacturers including: Glad	800.835.4523	www.glad.com	Polyethylene	Wrap (Glad Cling Wrap)
	R.D. Plastics Company, Inc.	800.795.7007	www.rdplastics.com	Polypropylene	Plastic bags for secondary containers and dispensing pills
Radiation Aprons and Shields	Protech Leaded Eyewear, Inc.	888.672.9769	www.protecheyewear.com	ProLite Supreme (lead free), nylon, and polyurethane	Aprons, accessories, eyewear and shields (custom order)
	Pulse Medical, Inc.	800.342.5973	www.rci-pulsemed.com	Xenolite (Lead-free)	Aprons and custom accessories (Earth-Lite, Nu-Lite)
	Radiation Shield Technologies	866.733.6766	www.radshield.com	Demron (lead-free) and fabric	Aprons, shields, custom accessories
Respiratory Therapy Products	Ambu USA	800.262.8462	www.ambuusa.com	Silicone	Resuscitators - neonate and pediatric sizes
	Ambu USA	800.262.8462	www.ambuusa.com	Silicone	Face masks - pediatric sizes
	Cardinal Health	800.964.5227	www.cardinal.com	Polyethylene and ethyl vinyl acetate	Corrugated oxygen tubing (22 mm)
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Polyurethane	Replogle suction catheter (ARGYLE™)
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Silicone	CPAP nasal cannula (ARGYLE™)
	Intersurgical Systems	315.451.2900	www.intersurgical.com	Polypropylene and thermoplastic elastomer	Anaesthetic mask (EcoMask)
	Laerdal	877.523.7325	www.laerdal.com	Silicone	Resuscitators - preterm, pediatric and adult
	Laerdal	877.523.7325	www.laerdal.com	Silicone	Mask - preterm and pediatric sizes
	Medline, Inc.	800.633.5463	www.medline.com	Silicone	Laryngeal Masks
	Monaghan	800.833.9653	www.monaghanmed.com	Silicone	Mask
	Natus Medical	800.255.3901	www.natus.com	Acrylic with silicone flaps	Oxygen hood
	Rusch/Teleflex	800.553.5214	www.rusch.com	Red rubber or silicone	Endotracheal tube
	Rusch/Teleflex	800.553.5214	www.rusch.com	Silicone	Panda mask
	Smiths Medical / Portex	800.258.5361	www.smiths-medical.com	Silicone	Tracheostomy tubing (Bivona)
	Smiths Medical / Portex	800.258.5361	www.smiths-medical.com	Silicone	Endotracheal tubing, tube extensions, swivel connectors
	Smiths Medical / Portex	800.258.5361	www.smiths-medical.com	Silicone	Laryngectomy tubing (Bivona)
	Smiths Medical / Portex	800.258.5361	www.smiths-medical.com	Silicone	Epistaxis catheters (Bivona)
Smiths Medical / Portex	800.258.5361	www.smiths-medical.com	Silicone	Bronchoscopy tubing - neonatal, pediatric and adult (Bivona)	
Smiths Medical / Portex	800.258.5361	www.smiths-medical.com	Silicone	Emergency cricothyroidotomy kits	

Sources: Sustainable Hospitals Project, 2000, "Alternative Products," see <http://sustainablehospitals.org> (Lowell: Sustainable Hospitals Project, UMass Lowell); and Tickner, Joel, et al, 1999, The Use of Di-2-Ethylhexyl Phthalate in PVC Medical Devices: Exposure, Toxicity, and Alternatives (Lowell: Lowell Center for Sustainable Production, UMass Lowell); and all information was verified through telephone contacts with manufacturer representatives or review of manufacturer website information.

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Alternatives* to Polyvinyl Chloride (PVC) Medical Devices for the Neonatal Intensive Care Unit (NICU) (Part 8 of 10)

Products	Manufacturer	Telephone #	Website	Material	Comments
Respiratory Therapy Products (cont'd)	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Polyethylene terephthalate glycol (PETG)	Disposable infant oxygen hood (Disposa-Hood)
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Silicone	Orotracheal protective devices - neonatal (Pala-Nate)
	Vital Signs	800.932.0760	www.vital-signs.com	Delrin, anodized aluminum	Flow generator for CPAP
	Vital Signs	800.932.0760	www.vital-signs.com	Filter - polypropylene. HME - polypropylene, polyurethane open celled foam	Filters and HMEs
	Vital Signs	800.932.0760	www.vital-signs.com	Glass filled nylon, acrylic (Vital View & Greenlite), stainless steel & glass fiber reinforced nylon, plexiglas acrylic (Steelite)	Laryngoscope blades (Vital View, GreenLite, Steelite)
	Vital Signs	800.932.0760	www.vital-signs.com	Lustran, Frae PC ABS, stainless steel (passivated) anodized aluminum, circuit board has Luxeon Emitter LED, aluminum, epoxy glass printed circuit board, and brass contact	Laryngoscope handles - latex free (Vital View, GreenLite)
	Vital Signs	800.932.0760	www.vital-signs.com	Polyester	Oxygen or aerosol applications (Aero2Mask)
	Vital Signs	800.932.0760	www.vital-signs.com	Polyester/polyurethane	Mask
	Vital Signs	800.932.0760	www.vital-signs.com	Polyethylene	Berman airways
	Vital Signs	800.932.0760	www.vital-signs.com	Polyethylene	Guedel airway
	Vital Signs	800.932.0760	www.vital-signs.com	Polyethylene, polypropylene, zinc stearate, filter media 3M	Nebulizers (Misty Ox, Respigard, AcornII, Whisperjet)
	Vital Signs	800.932.0760	www.vital-signs.com	Polyethylene, stainless steel	PEEP valves
	Vital Signs	800.932.0760	www.vital-signs.com	Polypropylene	Optional tubing
	Vital Signs	800.932.0760	www.vital-signs.com	Polypropylene & polyethylene	Catheter mount
	Vital Signs	800.932.0760	www.vital-signs.com	Polypropylene, acrylic copolymer, polyethylene, EVA	Breathing circuit with expandable or corrugated tubing, breathing bag, filters, HME, and connectors - latex free (including LIMBO)
	Vital Signs	800.932.0760	www.vital-signs.com	Polypropylene, stainless steel, synthetic rubber (latex free), polyethylene	Arterial blood gas samplers and neocordgas kit
	Vital Signs	800.932.0760	www.vital-signs.com	Polyurethane foam	Head positioning pillow (Pi Pillow and DisposaView)
	Vital Signs	800.932.0760	www.vital-signs.com	Polypropylene, siliconised paper	CO2 indicator
Vygon	800.544.4907	www.vygonusa.com	Ethylene vinyl acetate	Oropharyngeal airway	
Sump Tubes	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Silicone	Salem sump tubes
	Vygon	800.544.4907	www.vygonusa.com	Polyurethane	Sump tubes

Sources: Sustainable Hospitals Project, 2000, "Alternative Products," see <http://sustainablehospitals.org> (Lowell: Sustainable Hospitals Project, UMass Lowell); and Tickner, Joel, et al, 1999, The Use of Di-2-Ethylhexyl Phthalate in PVC Medical Devices: Exposure, Toxicity, and Alternatives (Lowell: Lowell Center for Sustainable Production, UMass Lowell); and all information was verified through telephone contacts with manufacturer representatives or review of manufacturer website information.

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Alternatives* to Polyvinyl Chloride (PVC) Medical Devices for the Neonatal Intensive Care Unit (NICU) (Part 9 of 10)

Products	Manufacturer	Telephone #	Website	Material	Comments
Total Parenteral Nutrition	B. Braun	800.227.2862	www.bbraunusa.com	Glass container	TPN solution in glass container
	B. Braun	800.227.2862	www.bbraunusa.com	Multi-layer bag: Polypropylene/ Polyethylene copolymer, Polyester, Elastomer laminate	Bag for sterile water (Excel)
	Baxa Corporation	800.567.2292	www.baxa.com	Ethylene vinyl acetate	TPN bag
	Baxter Healthcare Corporation	888.229.0001	www.baxter.com	Ethylene vinyl acetate	TPN bag
	Baxter Healthcare Corporation	888.229.0001	www.baxter.com	Glass	TPN solution in glass
	Hospira, Inc.	877.946.7747	www.hospira.com	Glass	Glass empties for mixing TPN solutions
	Metrix Company	800.752.3148	www.metrixco.com	Ethylene vinyl acetate	TPN bags (Secure™)
	Nextron Medical Technologies	800.241.4376	www.nextronmed.com	Ethylene vinyl acetate	TPN bag
	Vygon	800.544.4907	www.vygonusa.com	Polyurethane	Catheter for parenteral nutrition (PremiCath and Nutriline)
Tubing - Medical and Surgical	Degania Silicone	401.349.5373	www.ds-il.com	Silicone	Medical tubing
	Natvar	800.395.6288	www.natvar.com	Non-DEHP PVC	Cardiovascular tubing
	Natvar	800.395.6288	www.natvar.com	Polyurethane and thermoplastic elastomer	Multi-layer IV tubing (BioPath)
	Qosina	631.242.3000	www.qosina.com	Non-DEHP PVC / low density Polyethylene	Medical and surgical tubing
Umbilical Vessel Catheters	Arrow International	800.523.8446	www.arrowintl.com	Silicone or Polyurethane	Umbilical vessel catheter
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Polyurethane	Umbilical vessel catheter (ARGYLE™)
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Silicone, tecoflex polyurethane	Umbilical vessel catheter - neonates (Umbili-cath)
	Vygon	800.544.4907	www.vygonusa.com	Polyurethane	Umbilical vessel catheter
Urinary Catheters	Amsino International	800.692.6746	www.amsino.com	Red rubber	Urethral catheter
	Amsino International	800.692.6746	www.amsino.com	Silicone	Two-way Foley catheter
	C.R. Bard	800.526.4455	www.bardmedical.com	Polyurethane	Urethral catheter
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Polyurethane	Urinary catheter
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Silicone	Foley catheter
	Degania Silicone	401.349.5373	www.ds-il.com	Silicone	Temperature sensor catheters (pediatric sizes)
	Marian Medical, Inc.	502.895.6991	www.marianmedicalonline.com	Silicone	Urethral catheter for neonates
	Rochester Medical	800.243.3315	www.rocm.com	Silicone	Foley catheter (pediatric)
	Rochester Medical	800.243.3315	www.rocm.com	Silicone	Urethral / Intermittent catheters (pediatric)

Sources: Sustainable Hospitals Project, 2000, "Alternative Products," see <http://sustainablehospitals.org> (Lowell: Sustainable Hospitals Project, UMass Lowell); and Tickner, Joel, et al, 1999, The Use of Di-2-Ethylhexyl Phthalate in PVC Medical Devices: Exposure, Toxicity, and Alternatives (Lowell: Lowell Center for Sustainable Production, UMass Lowell); and all information was verified through telephone contacts with manufacturer representatives or review of manufacturer website information.

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Alternatives* to Polyvinyl Chloride (PVC) Medical Devices for the Neonatal Intensive Care Unit (NICU) (Part 10 of 10)

Products	Manufacturer	Telephone #	Website	Material	Comments
Urinary Catheters (cont'd)	Rusch / Teleflex	800.553.5214	www.rusch.com	Silicone	Foley catheters (pediatric to adult sizes)
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Silicone	Urinary catheter (Uri-cath)
Vascular Catheters	Aesculap Inc., USA	800.282.9000	www.aesculapusa.com	MBS body, titanium chamber, polyurethane catheter	Access ports (CelSite BabyPort®)
	AngioDynamics	800.772.6446	www.angiodynamics.com	Durathane™	Central venous catheter, peripherally-inserted central catheter
	AngioDynamics	800.772.6446	www.angiodynamics.com	Polyurethane	Peripherally-inserted central catheter
	B. Braun	800.227.2862	www.bbraunusa.com	Polyurethane	Central venous catheter, introcan, safety catheter, peripherally-inserted central catheter
	Becton Dickinson	888.237.2762	www.bd.com	Silicone, polyurethane	Peripherally-inserted central catheter, midline catheter
	Cook Critical Care	800.457.4500	www.cookcriticalcare.com	Polyurethane	Central venous catheter
	Cook Critical Care	800.457.4500	www.cookcriticalcare.com	Polyurethane, polyethylene or nylon	Arterial pressure monitoring set and tray
	Cook Critical Care	800.457.4500	www.cookcriticalcare.com	Silicone	Central venous catheter
	Covidien / Kendall Healthcare	800.962.9888	www.kendallhealthcare.com	Polyurethane	PICC (ARGYLE™)
	Marian Medical, Inc.	502.895.6991	www.marianmedicalonline.com	Silicone	Peripherally-inserted central catheter
	Smiths Medical / Deltec	800.426.2448	www.smiths-medical.com	Silicone	Tunneled central catheter
	Smiths Medical / Deltec	800.426.2448	www.smiths-medical.com	Silicone	Percutaneous IV catheter
	Smiths Medical / Deltec	800.426.2448	www.smiths-medical.com	Silicone or polyurethane	Implantable infusion ports
	Smiths Medical / Jelco	800.426.2448	www.smiths-medical.com	Polyurethane	Peripherally-inserted central catheter and midlines (Optiva)
	Smiths-Medical / Deltec	800.426.2448	www.smiths-medical.com	Titanium, stainless steel and /or polysulfone (portal) polyurethane or silicone (catheter)	Implanted vascular access ports
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Silicone	Peripherally-inserted central catheter - neonates (PICC-Nate)
	Utah Medical Products, Inc.	800.533.4984	www.utahmed.com	Tecoflex polyurethane	Peripherally-inserted central catheter - neonates (PICC-Nate)
	Vygon	800.544.4907	www.vygonusa.com	Polyurethane	Seldinger technique single lumen catheter
	Vygon	800.544.4907	www.vygonusa.com	Polyurethane or polyethylene	Mid-line catheters
Vygon	800.544.4907	www.vygonusa.com	Polyurethane or silicone	Periphally inserted central catheter and ECC catheter	

Sources: Sustainable Hospitals Project, 2000, "Alternative Products," see <http://sustainablehospitals.org> (Lowell: Sustainable Hospitals Project, UMass Lowell); and Tickner, Joel, et al, 1999, The Use of Di-2-Ethylhexyl Phthalate in PVC Medical Devices: Exposure, Toxicity, and Alternatives (Lowell: Lowell Center for Sustainable Production, UMass Lowell); and all information was verified through telephone contacts with manufacturer representatives or review of manufacturer website information.

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1901 North Moore Street
Suite 509
Arlington, VA 22209
Phone: 703.243.0056
Fax: 703.243.4008
www.noharm.org
info@hcwh.org

This publication is part of *Going Green: A Resource Kit for Pollution Prevention in Health Care*. For additional copies of this or other publications included in the kit, or to find out how to get a complete kit, visit Health Care Without Harm on the Web at www.noharm.org/goinggreen.



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